

Same owner, different impact: How responses to performance feedback differ across a private equity investor's portfolio firms

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Abstract:	Private Equity (PE) investors invest in a portfolio of firms, setting new, ambitious performance aspirations and providing monitoring and value-adding services to help management attain these aspirations. Integrating a behavioral theory of the firm and corporate governance perspective, this study investigates how portfolio firms respond to performance feedback, considering heterogeneity in PE investors' incentives and influence towards a given portfolio firm's strategic actions. Using unique data from a PE investor including direct aspirations measures, we find that (1) portfolio firms' performance relative to aspirations, and (2) the PE investor's relative investment amounts and experience of PE-appointed board members, interact to affect the distinct growth strategies (i.e., internal capital investments or external acquisitions) its portfolio firms pursue.

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6 across a private equity investor's portfolio firms
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9 **ABSTRACT**

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11 **Research summary:** Private Equity (PE) investors invest in a portfolio of firms, setting new,
12 ambitious performance aspirations and providing monitoring and value-adding services to help
13 management attain these aspirations. Integrating a behavioral theory of the firm and corporate
14 governance perspective, this study investigates how portfolio firms respond to performance
15 feedback, considering heterogeneity in PE investors' incentives and influence towards a given
16 portfolio firm's strategic actions. Using unique data from a PE investor including direct
17 aspirations measures, we find that (1) portfolio firms' performance relative to aspirations, and (2)
18 the PE investor's relative investment amounts and experience of PE-appointed board members,
19 interact to affect the distinct growth strategies (i.e., internal capital investments or external
20 acquisitions) its portfolio firms pursue.
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24 **Managerial summary:** A PE investor may guide its portfolio firms differently. Incentives to
25 intervene should be larger in case of larger investments, and influence should be more extensive
26 in case of more senior PE board representatives. In this study, we examine how a PE investor's
27 varying incentives and influence affect how PE-backed firms strategically react to under- and
28 overperformance. We find that a PE investor pushes for capital investments but deters
29 acquisitions as performance shortfalls increase in a portfolio firm, when they have made larger
30 investments and appointed more senior board members. In case of overperformance, a PE
31 investor pushes towards acquisitions (and against capital investments) when they have invested
32 more. Surprisingly, the opposite holds in case of more senior board members.
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37 **1. INTRODUCTION**

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39 Past research suggests that performance relative to aspirations guides managers' strategic
40 actions, where aspirations are based on a firm's past performance (historical aspirations) or the
41 average performance of a reference group (social aspirations) (e.g., Audia & Greve, 2006;
42 Kuusela et al., 2017; Posen et al., 2018; Ref & Shapira, 2017). Still, historical and social
43 aspirations become largely irrelevant when new owners invest in private firms because they may
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45 change aspirations. Private Equity (PE) investors—defined as investors who typically take a
46 majority stake in private, mature firms (Gompers et al., 2016)—represent such owners.¹ PE
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57 ¹ We do not focus on venture capital investors which target young scale-ups.
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3 investors set new, ambitious aspirations for their portfolio firms (Butler, 2001) and strive to sell
4 their stakes at much higher valuations some five years after they entered the firms (Gompers et
5 al., 2016). Thus, while performance aspirations are key in PE-backed firms, examining them
6 requires a novel approach focused on direct aspirations.
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12 PE investors aim to foster strategic entrepreneurship and value creation via growth
13 strategies (e.g., Meuleman et al., 2009a; Wright et al., 2001). One strategy focuses on internal
14 growth (Scellato & Ughetto, 2013; Sinyard et al., 2020). Another strategy focuses on external
15 acquisitions, “where the portfolio firm serves as a platform for subsequent add-on acquisitions ...
16 or “buy and build” strategies” (Hammer et al., 2017: 32). While both options have been
17 recognized as viable growth strategies (Bernstein et al., 2019), we lack an understanding of when
18 a PE investor will prioritize each growth strategy. Indeed, each strategy requires a substantial
19 financial and non-financial resource allocation thereby constraining firms’ ability to implement
20 both at the same time. Moreover, PE investors likely have a set of beliefs in terms of which
21 strategy is more appropriately deployed when, i.e. in what portfolio firm performance context.
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35 In the behavioral theory of the firm (BTOF) (Cyert & March, 1963), strategic change
36 should be most likely when a portfolio firm’s performance deviates significantly below its
37 aspiration level, and least likely when it exceeds its aspiration level. Yet, we argue that it is
38 unlikely these traditional BTOF predictions will hold universally across the portfolio firms of a
39 PE investor for several reasons. First, we argue that the expectation of managers being unlikely
40 to initiate any change as performance exceeds aspirations (Cyert & March, 1963) will not hold in
41 PE-backed firms. Such behavior would be at odds with the PE investor’s incentive to maximize
42 value creation and return (Gompers et al., 2016). Second, prior studies adopting a BTOF
43 perspective have typically focused on one specific type of strategic change following
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3 performance feedback (for a notable exception, see Kuusela et al. (2017)). By doing so, they
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5 have underexplored the complexity that different strategic actions are available to managers.
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7 Internal capital investments versus external acquisitions have different implications for portfolio
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9 firms and the PE investor. This may imply that the desirability and thus the propensity of
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11 pursuing a certain growth strategy may vary depending on the performance context a portfolio
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13 firm finds itself in (i.e., below vs. above aspirations). Third, while a PE investor is generally an
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15 active owner, monitoring is costly and an investor's attention and resources are limited (Gifford,
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17 1997). Hence, a PE investor's monitoring and value-adding efforts may be unevenly distributed
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19 across its portfolio firms, and instead depend on a PE investor's varying incentives to be
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21 involved. Moreover, the influence to direct management can also vary significantly within a PE
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23 investment team (e.g., Desender et al., 2016; Goodstein et al., 1994).² Combined, within-owner
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25 heterogeneity in incentives and influence to govern managerial actions may significantly
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27 influence the relationship between performance feedback and distinct types of strategic change
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29 across the portfolio firms of a PE investor.
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35 Empirically, we draw on unique data, including a direct measure of aspirations, collected
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37 from 51 portfolio firms of a mid-sized European PE investor for the 2013-2018 period. Our focus
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39 on a single PE investor reduces unmeasured variance (as in Collewaert et al. (2021), or Petty &
40
41 Gruber (2011)), yet still provides large variability in our study's focal variables.
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48 ² We do not theorize on the formal power of a PE investor to influence management. Also, while ownership stakes,
49 for instance, would in other contexts be a valid proxy for a shareholder's power, PE investors usually take a majority
50 equity stake. Moreover, as of a 25% stake they have a blocking minority, allowing them to influence a firm's
51 strategic agenda and its strategic choices (Vanacker et al., 2013). This is the case in 90% of our sample. Further, PE
52 investors also negotiate veto rights (present in 92% of our sample) on matters related to acquisitions and capital
53 investments (other examples include issue of shares, mergers, approval of the annual budget, new business activities,
54 and hiring, firing and remuneration decisions of key staff). Combined, a PE investor will have significant formal
55 power. This situation makes our focus on informal power through expertise (Finkelstein, 1992) particularly
56 interesting. As we argue below, there can be significant variance in the informal power of a PE investor not only to
57 influence management to *not* take strategic actions but also to *push* for actions.
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3 The results of our empirical analysis support our theory, as we find that the growth
4 strategies pursued by a portfolio firm depend not only on the performance context of the firm,
5 but also on the PE investor's incentives and influence to govern the firm's actions. Specifically,
6 we find that portfolio firms exhibit a more positive (negative) relationship between performance
7 shortfalls and capital investments (acquisition likelihood) when the PE investor has relatively
8 more money invested and appointed relatively more experienced board members. When firms
9 perform increasingly above aspirations, we find that capital investments decrease when a PE has
10 invested relatively larger amounts, yet increase when a PE has appointed relatively more
11 experienced board members. In case of overperformance, acquisitions become more likely when
12 the PE investor has invested relatively larger amounts; yet, less likely when they have appointed
13 relatively more experienced board members.
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28 Our paper advances extant literature in several ways. First, a key strength of our study is
29 that we start from direct aspiration measures as delivered to and discussed with the PE investor.
30 Traditional aspiration measures are typically indirect and rely on a firm's past performance or the
31 average performance of a reference group, and empirical models at times are based on the
32 combination of measures that provide best model "fit" (e.g., Audia & Greve, 2006; Kuusela et
33 al., 2017; Posen et al., 2018; Ref & Shapira, 2017). While there has been a discussion on the
34 extent to which these indicators are a clean measure of management's aspirations, they are
35 problematic in our context since PE investors aim to enhance and break away from a firm's past
36 performance and industry average performance (Gompers et al., 2016). The actual targets set by
37 a PE investor and management are used to assess, review, and follow up on portfolio firm
38 performance. We find that our direct aspiration measure serves well in explaining heterogeneity
39 in how firms in a PE investor's portfolio react to performance feedback.
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3 Second, we further develop an integrated BTOF-corporate governance perspective by
4 leveraging the PE context. We show that the presence of a powerful, value-focused owner
5 challenges some of the traditional predictions from the BTOF. For instance, firms have a
6 portfolio of strategic options available (e.g., Kuusela et al., 2017) and scholars have called to
7 better consider how firms prioritize specific strategic changes (Klarner et al., 2022). We add
8 nuance to traditional expectations from the BTOF by unveiling that depending on whether a PE-
9 backed firm performs above versus below aspirations, capital investments or acquisitions may be
10 pushed for or against. We extend insights on how governance is relevant for the BTOF by
11 showing how variation in incentives and influence of a specific owner to govern regulates
12 management's responses to both negative and positive performance feedback. More specifically,
13 as performance exceeds aspirations, we find that—in line with our expectations—portfolio firms
14 in which a PE investor has invested relatively more money are more likely to engage in
15 acquisitions. While the call for more integration between corporate governance and the BTOF is
16 not new (e.g., Van Ees et al., 2009), our understanding of this domain is still limited. We show
17 that traditional predictions from the BTOF when performance is below aspirations mainly hold
18 in case a PE investor has high incentives and influence to govern. When incentives and influence
19 are low though, lack of PE involvement results in a lack of managerial action.
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42 Third, in the PE literature, there is broad recognition of the value of PE ownership and
43 the active involvement and value-adding roles of PE investors (e.g., Manigart & Wright, 2013).
44 Moreover, it has been widely acknowledged that PE-backed firms pursue different growth
45 strategies (e.g., Meuleman et al., 2009a). However, we lack in-depth research as to how exactly
46 PE investors' involvement varies across portfolio firms and how they influence the strategic
47 paths prioritized in their portfolio firms. More specifically, as in the broader BTOF literature, PE
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3 research on factors influencing the prioritization of internal capital investments or external
4 acquisitions is scant. By considering the performance context of the firm and the relative amount
5 invested and experience of PE-appointed board members, we uncover conditions under which
6 each growth strategy is prioritized. This knowledge is valuable for both practitioners and
7 scholars interested in understanding the strategic decision-making process in PE-backed firms.

14 **2. THEORY AND HYPOTHESES**

17 **2.1. Background literature: PE investors, new aspirations, and strategic actions**

19 A significant stream of research suggests that managers' strategic actions are influenced by how
20 their firms perform relative to their aspirations (e.g., Audia & Greve, 2006; Bromiley, 2005;
21 Cyert & March, 1963; Greve, 1998; 2003a; 2003b; Kuusela et al., 2017; Posen et al., 2018). In
22 extant performance feedback research, management is often (implicitly) presented as the
23 dominant coalition guiding an organization's search and actions when performance deviates
24 from aspirations. However, from a corporate governance perspective (Van Ees et al., 2009),
25 managers must balance the perspectives of other powerful coalition members who can also
26 influence aspirations and the firm's reactions to deviations from those aspirations. One such
27 important coalition member is the owner of the firm (O'Brien & David, 2014). Our focus is on
28 PE investors or active, professional equity investors who typically acquire majority stakes in
29 mature firms and exert some influence over their management.³ Gompers et al. (2016) found that
30 PE investors advise their portfolio firms on strategic choices in 87.5 percent of deals. Research
31 has shown how PE investors stimulate firm growth by influencing management through

31 ³ While the PE model has some similarities with the venture capital (VC) model, there are also differences. For
32 example, PE investors invest in established businesses, while VC investors invest in new, early-stage firms. Next,
33 VCs often use staged financing; this provides them with the option to abandon investments that do not make
34 progress. However, the financing of a PE-backed firm is typically fully secured at the date of the acquisition
35 (Wynant et al., 2023). The money invested by a PE investor is typically used to buy out existing shareholders, and
36 hence cannot be used for investments in the portfolio firm.

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3 monitoring and value-adding (e.g., Kaplan & Strömberg, 2009; Manigart & Wright, 2013;
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5 Wright, 2013).
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8 PE investors build a portfolio of firms and concurrently invest in 8 to 23 firms on average
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10 (Private Equity Info, 2019). For each portfolio firm, they set new and ambitious performance
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12 aspirations together with the firm's management. These aspirations fundamentally break away
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14 from the firm's history or industry average performance as the goal is to boost shareholder value.
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16 Typically, aspiration levels are discussed and approved during board meetings, where progress
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18 towards these targets is also monitored. Additionally, as PE investors are accountable to their
19
20 own investors, they review and discuss the performance of each portfolio firm at internal PE
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22 investment committee meetings. When receiving performance feedback from their portfolio
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24 firms, PE investors can thus influence how management responds to this feedback. This is in line
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26 with a limited, recent stream of research in the BTOF literature which has acknowledged that
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28 owners can exercise pressures on management, thereby affecting their solution search when
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30 confronted with performance discrepancies (O'Brien & David, 2014).
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36 PE investors invest in mature firms with established business plans. Historically, scholars
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38 have taken an agency perspective on PE, viewing the PE model as an "efficiency tool to
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40 streamline organizational processes, reduce workforces, and decrease unit costs" (Wright et al.,
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42 2001: 111). However, recent research highlighted a shift in the drivers of PE value creation. It is
43
44 now recognized that PE investors serve as facilitators of strategic growth and entrepreneurship
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46 (Wright et al., 2001). Indeed, "value creation has turned toward ... growth-related measures"
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48 (Hammer et al., 2022a: 118) and "PE investors anticipate adding value to portfolio companies,
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50 with a greater focus on increasing growth than on reducing costs" (Gompers et al., 2016: 449).
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These growth-related measures include two broad types: internal or external (acquisitions) investments (e.g., Delmar et al., 2003; Meuleman et al., 2009a; Penrose, 1959), each having their advantages and disadvantages. As managers often have a better understanding of their own assets, internal investments are less risky compared with acquisitions; they protect organizational culture and are more difficult to copy by other firms because internal capital investments are less visible than external acquisitions (Aktas et al., 2008; Delmar et al., 2003). However, successful internal capital investments require there to be sufficient growth opportunities to leverage those investments (Penrose, 1959) and often take longer to materialize (Aktas et al., 2008).

Acquisitions, in contrast, may offer external opportunities to improve management practices, bring in new capabilities and knowledge, enable resource redeployment, leverage economies of scale and scope, and explore new domains (Ahuja & Katila, 2001; Kaul & Wu, 2016; Meuleman et al., 2020; Nikoskelainen & Wright, 2007; Puranam et al., 2009). Moreover, acquisitions can enhance shareholder value through ‘multiple arbitrage’ when a target is bought at a lower EBITDA (or other) multiple compared to the realized multiple at exit (Hammer et al., 2022b). However, acquisitions carry significant risks as the realization of synergies can be costly, and post-acquisition integration is difficult (e.g., Datta et al., 1992; King et al., 2004).

While several studies have confirmed the positive impact of PE investors on the growth of their portfolio firms (e.g., Bernstein et al., 2019; Meuleman et al., 2009a; Paglia & Harjoto, 2014), these studies do not explain why capital investments or acquisitions get more (or less) prioritized in a given portfolio firm, and hence, how a PE investor’s approach to growth might differ across its portfolio firms. We expect, however, that a PE investor is unlikely to advocate for *both* acquisitions and additional capital investments together, as financial and non-financial

resources are inherently limited. A dollar can only be spent once: the allocation of funds towards internal growth diminishes the availability of financial resources for acquisitions and vice versa. Additionally, managerial resources are limited and as such, managers have limited attention and are typically focused on developing a single strategic response at any given time (Bromiley, 2005). Below, we draw on an integrated BTOF-governance perspective, starting from baseline hypotheses on how performance discrepancies are related to capital investments and acquisition likelihood in PE-backed portfolio firms. We proceed by hypothesizing how PE incentives and influence moderate these baseline relationships.

2.2. Baseline hypotheses

2.2.1. Performance below aspirations

The BTOF asserts that problemistic search gets triggered by a performance shortfall relative to an aspiration level. As performance falls further below the aspiration level, managers engage in greater search efforts to restore performance (Greve, 1998). Empirical evidence has established that as performance shortfalls increase, on average, managers become more likely to make capital investments (Arrfelt et al., 2013; Audia & Greve, 2006; Greve, 2003b) but less likely to pursue acquisitions (e.g., Iyer & Miller, 2008; Kuusela et al., 2017). While the evidence for acquisitions might, at first sight, seem inconsistent with the notion of problemistic search, Iyer and Miller (2008: 818) suggested that this pattern is consistent with the BTOF, as “[b]elow-aspirations performers may engage in local search directed toward improving the performance of existing businesses, rather than turn to mergers and acquisitions”. Indeed, in line with the BTOF, when a performance shortfall occurs, managers first seek local, satisficing solutions to restore performance to satisfactory levels (e.g., Bromiley, 2005; Iyer & Miller, 2008). Moreover, in so doing, they will try to avoid uncertainty (Cyert & March, 1992). Capital investments, being a

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3 more “local” and less uncertain solution than external acquisitions, thus align with managers’
4 focus in this situation. This evidence is also in line with the idea that managers rarely develop
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6 more than one solution in reaction to a problem (Bromiley, 2005).
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10 In PE-backed firms, managers must consider the PE investor’s perspective, which can
11 either reinforce managers’ views or constrain specific behaviors. Formal approval from PE
12 investors is typically required for significant capital investments and acquisitions as they
13 typically hold veto rights over these decisions (Wynant et al., 2023). Thus, when it comes to
14 capital investments and acquisitions, PE investors are—in BTOF terms—key coalition members
15 who can weigh in on the discussion as to what extent a specific growth strategy is an appropriate
16 response to performance shortfalls.
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26 Turning to capital investments first, when performance shortfalls are large, PE investors
27 will be inclined to encourage portfolio firm management to restore performance through internal
28 actions. Internal investments allow management to leverage their understanding of the firm’s
29 resources (e.g., Aktas et al., 2008) to restore performance to satisfactory levels. To use the words
30 of a PE investment manager we interviewed:
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37 The first question is: what is the cause of the underperformance? ... just because, you know, you
38 first need to get the company healthy again before you can have the ambition to buy something
39 on top...
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42 Not only do PE investors consider internal investments as a more appropriate choice to
43 go with in case of larger performance shortfalls, they also have the skills and networks to assist
44 management in identifying value-creating capital investments (Vanacker et al., 2013).
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49 In contrast, PE investors do not view acquisitions as a viable way out of large
50 performance shortfalls. A PE investment manager we interviewed formulated this as follows:
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54 In M&A, typically, you are going to deploy more capital, spend more money, and that means that
55 your company must do well. If your company is in distress, the last thing you want to do is put
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3 another M&A target on top and add complexity and stress for the management team. If a
4 company is in difficulties, you are not going to M&A your way out of it.
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6 Hence, acquisitions are not considered a suitable strategy by PE investors “to buy yourself out of
7 trouble” and the PE investor—via its monitoring role—can limit such possible reactions to large
8 performance shortfalls. PE investors, however, view acquisitions as a better strategy to accelerate
9 a portfolio firm’s growth path when it is only slightly underperforming:
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15 We call that business as usual... if they miss their targets a bit then that will not scare us away.
16 Then, we will think far more expansively, like “look we have a good file here, this is a nice
17 opportunity”... it’s not an issue. If we see a good [acquisition] opportunity passing by, we will
18 really think, ok let’s go for it.
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21 In such cases, acquisitions make for a better-fit tactic to try to restore firm performance
22 towards the set targets: portfolio firms have less drastic issues to tackle internally first and can
23 afford to explore more externally oriented strategies to ensure future growth, thereby also serving
24 their PE investor’s purpose of maximizing the value of their investment as much as possible by
25 the time of exit (Cumming & Johan, 2017; Nikoskelainen & Wright, 2007). Through their value-
26 adding role, PE investors can also bring acquisition opportunities to management.
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34 Taken together, in PE-backed firms, capital investments should increase while
35 acquisitions should become less likely as performance shortfalls increase. Thus:
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40 *H1a: The relationship between performance below aspirations and capital investments in*
41 *PE-backed portfolio firms will be positive.*

42 *H1b: The relationship between performance below aspirations and acquisition likelihood*
43 *in PE-backed portfolio firms will be negative.*
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45 **2.2.2. Performance above aspirations**

46 When performance exceeds aspirations, the BTOF predicts that managers are unlikely to make
47 strategic changes as they perceive no problem (Cyert & March, 1963; Gavetti et al., 2012).
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50 According to Cyert and March (1963), managers adhere to past operating procedures unless they
51 fail to achieve aspirations. A positive outlook resulting from favorable past performance creates
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3 an anticipation of future gains, which reduces the likelihood of major strategic changes as
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5 decision-makers want to avoid any actions that might endanger these gains. Empirical evidence
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7 generally supports this assertion. As performance exceeds aspirations, managers take fewer new
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9 initiatives, maintain the status quo, and—most pertinent to our study—reduce their new capital
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11 investments and are less likely to pursue acquisitions (e.g., Arrfelt et al., 2013; Iyer & Miller,
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13 2008; Joseph et al., 2016; Kavusan & Frankort, 2019; Tarakci et al., 2018).

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17 However, from a PE investor's perspective, certain strategic actions might become more
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19 attractive when a portfolio firm outperforms aspirations. While portfolio firm management may
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21 become complacent and risk-averse, the PE model ensures that PE investors are less likely to
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23 become complacent when the performance of a portfolio firm exceeds aspirations. PE investors
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25 have strong incentives to further enhance the firm's performance because their compensation
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27 (and ability to remain in the PE business through raising a subsequent fund) is tightly linked to
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29 exceptional value creation in their portfolio firms (e.g., Gompers et al., 2016; Vanacker et al.,
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31 2020). Thus, PE investors are likely to counteract complacent managerial behavior when
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33 performance exceeds aspirations (Jensen, 1989).

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37 Nevertheless, we expect that a PE investor is unlikely to advocate for *both* acquisitions
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39 and additional capital investments. A PE investor would primarily challenge managerial
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41 complacency regarding future acquisitions rather than regarding capital investments. Put
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43 differently, a PE investor will prefer a portfolio company to try and further boost its growth
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45 through acquisitions rather than to push for new capital investments when its performance
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47 exceeds aspirations. Several reasons support this expectation.

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51 Firstly, PE investors usually strive to establish a robust track record of growth in their
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53 portfolio firms to enhance future valuation upon exit (Loos, 2007). However, while PE investors
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3 operate within relatively short investment horizons, typically five years after entering a firm,
4 capital investments tend to take significant time to materialize and yield increased sales,
5 economies of scale, or cost reductions (Aktas et al., 2008). Additionally, developing the
6 necessary managerial capabilities to leverage internal capital investments (e.g., through
7 recruiting and training new managers) also necessitates significant time (Lockett et al., 2011).
8 While acquisitions, like capital investments, also imply adjustment costs in terms of integration
9 and coordination, acquisitions also bring an influx of resources from the acquired firm aiding in
10 dealing with these costs (Lockett et al., 2011). Moreover, acquisitions tend to positively affect
11 short-term profitability by rapidly influencing market share, firm size, and related market and
12 bargaining power (Aktas et al., 2008; Ghosh, 2004; Moatti et al., 2015). Multiple arbitrage, in
13 which the target is acquired at a lower EBITDA-multiple compared to the expected multiple at
14 exit, thereby further boosts short-term shareholder value creation (Hammer et al., 2022b).
15 Finally, PE investors contribute substantial M&A experience, further increasing potential
16 shareholder returns compared to organic growth strategies (BCG, 2015). As multiple PE
17 investors attested to us:

18 We all know that when it comes to value creation, these [acquisitions] are quite something...
19 generally our experience is that add-on acquisitions create more value...

20 In such cases [performance above aspirations], add-on [acquisitions] are a great way to create
21 value because of the multiple we can realize on these add-ons.

22 All else equal, however, a PE investor's pursuit of acquisitions reduces the scope for
23 internal capital expenditures due to the inherent limitation of financial and managerial resources
24 (Bromiley, 2005). Furthermore, there is no infinite pool of value-creating internal capital
25 investment projects (Vanacker et al., 2013). As such, concerns may arise on the part of PE
26 investors as performance further surpasses aspirations, as it may reduce managers' diligence
27 when selecting internal projects (Nohria & Gulati, 1996). This may result in the acceptance of

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3 projects lacking novelty or clear value-creating potential (Kavusan & Frankort, 2019; Tarakci et
4 al., 2018). Therefore, in firms in which performance already largely exceeds aspirations, it is
5 more likely that the most valuable internal growth options have already been pursued. In such a
6 scenario, PE investors are more likely to view additional capital investments with doubt and
7 scrutiny.
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12 Overall, a PE investor may especially push towards boosting acquisitions when
13 performance exceeds aspirations as it is seen as a tactic that delivers quicker and larger short-
14 term gains, relative to internal capital investments. Moreover, such a focus on acquisitions entails
15 that there will also be fewer financial resources and managerial attention left for internal capital
16 investments. Thus:
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21 *H1c: The relationship between performance above aspirations and capital investments in*
22 *PE-backed portfolio firms will be negative.*

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25 *H1d: The relationship between performance above aspirations and acquisition likelihood*
26 *in PE-backed portfolio firms will be positive.*

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29 In the baseline hypotheses above, we have so far assumed that a PE investor is equally
30 influential across all its portfolio firms. However, there is significant variation in a PE investor's
31 incentive and influence to govern across portfolio firms. Accordingly, we argue that a PE
32 investor's impact on managers' reactions to performance feedback will vary significantly based
33 on these dimensions.
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36 37 38 **2.3. The moderating impact of a PE investor's incentive to govern**

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41 Given limited human resources and time, PE investors cannot equally attend to all firms in their
42 portfolio (Gifford, 1997). In the BTOF, such limitations are expected to "constrain the
43 bargaining process" (Cyert & March, 1992: 37). Therefore, although PE investors are major
44 shareholders, they cannot make equal demands on managers across their entire portfolio of firms.
45 Instead, governance research suggests that varying incentives should be influential for PE
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3 investors' monitoring and value-adding efforts (e.g., Gifford, 1997; Gompers, 1995). PE
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5 investors are particularly incentivized to monitor and provide value-adding services to their
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7 relatively larger investments because these have a disproportionate impact on the overall
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9 portfolio return and hence on their personal compensation.⁴ Indeed, PE investors' compensation
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11 includes a carried interest, typically equal to 20% of the excess returns or value they created, on
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13 the total fund (Gifford, 1997; Gompers & Lerner, 1999). As such, all else equal, a PE investor
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15 will dedicate relatively less effort and attention to the smaller investments in its portfolio because
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17 the relative reward from these investments remains more limited, compared to those of larger
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19 investments (Bonini et al., 2011; Heger & Tykvová, 2009).
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24 **2.3.1. Performance below aspirations and a PE investor's relative investment amount**

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26 Our baseline hypotheses posit that as performance shortfalls increase, PE investors will exert
27
28 greater pressure on management to pursue capital investments while discouraging acquisitions as
29
30 a solution. However, consistent with the notion of attention focus (Cyert & March, 1992),
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32 performance shortfalls relative to aspirations in a portfolio firm will shift PE investors' attention
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34 focus more drastically towards their relatively larger investments. Accordingly, all else equal, a
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36 PE investor will exert more pressure on management actions in portfolio firms where negative
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38 feedback is received *and* the investment is relatively larger within its portfolio. Conversely,
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40 performance shortfalls in portfolio firms where the PE investor has made a smaller investment
41
42 are less likely to capture the attention and time of the PE investor. Even if PE investors notice the
43
44 shortfalls, their limited attention will be primarily dedicated to larger investments, where their
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46 stakes (both potential gains and losses) are higher (Bonini et al., 2011). With less oversight and
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54 ⁴ Note that a large investment by a PE firm does not imply that the portfolio firm received a large pool of financial
55 resources to deploy. The PE investment is mainly used to buy out existing shareholders and hence there is no a-
56 priori reason to expect a high correlation with internal resource availability.
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3 active monitoring, management will experience less pressure from their PE investor. Thus,
4 especially portfolio firms with substantial performance shortfalls in which PE investors invested
5 a relatively large amount will be pushed more strongly to invest in internal capital investments
6 while acquisitions will be further discouraged (in line with the preferences of the PE investor as
7 discussed in our baseline hypotheses).
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12 Hence, we expect that traditional BTOF predictions would hold most strongly in a
13 context of performance shortfalls and intense PE investor oversight. This might not be surprising
14 because most studies building on the BTOF have focused on public firms, including those
15 examining capital investments or acquisitions (e.g., Arrfelt et al., 2013; Audia & Greve, 2006;
16 Greve, 2003b; Iyer & Miller, 2008; Kuusela et al., 2017) and hence focused on a context where
17 firms face substantial pressures and scrutiny from various stakeholders such as security analysts,
18 auditors, and financial markets (e.g., Quigley et al., 2022). With substantial external oversight,
19 management is compelled to demonstrate initiative and present a rectifying course of action,
20 especially in the case of substantial performance shortfalls. While a different nature of oversight,
21 one could argue that especially when a PE investor has strong incentives to monitor—as would
22 be the case with their relatively larger investments—their presence also imposes substantial
23 oversight and prompts action; i.e. this is the context which most naturally aligns with those from
24 prior BTOF studies.
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44 However, when PE investors have fewer monitoring incentives, we find ourselves in a
45 relatively novel context—where there is far less oversight—compared to traditional BTOF
46 research. Here, portfolio firm management may be less compelled to explicitly articulate,
47 rationally defend and justify their performance, deviations from their aspirations, nor their
48 strategic decisions and actions—i.e., they will be held less accountable (Forbes, 2005). As such,
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they may also be less likely to proactively anticipate and incorporate their PE investor's concerns. With less active monitoring, performance below aspirations may lead managers to become more complacent, to narrow their focus and to avoid change (Buyl & Boone, 2014; Sedikides & Strube, 1997; Staw et al., 1981).

Overall, the baseline hypotheses related to performance below aspirations are expected to be stronger (weaker) in portfolio firms in which a PE investor invested more (less). Thus:

Hypothesis 2a: The higher the relative amount invested by a PE investor in a portfolio firm, the more positive the relationship between performance below aspirations and capital investments in that portfolio firm.

Hypothesis 2b: The higher the relative amount invested by a PE investor in a portfolio firm, the more negative the relationship between performance below aspirations and acquisition likelihood in that portfolio firm.

2.3.2. Performance above aspirations and a PE investor's relative investment amount

In our baseline hypotheses, we argue that when performance exceeds aspirations, a PE investor will discourage new capital investments but will push management to pursue new acquisitions. Consistent with the notion of attention focus (Cyert & March, 1992), positive performance feedback will again shift PE investors' attention focus more drastically in case of a relatively larger investment. As such, a PE investor will be more likely to push its agenda on management in a portfolio firm from which it gets positive feedback when the firm represents a relatively larger, more important investment in its portfolio.⁵ In contrast, with less incentive to govern in their relatively smaller investments (Heger & Tykvová, 2009), the management of PE-backed

⁵ One might wonder why managers in public firms—who are subject to pressures from capital markets—often exhibit complacent behavior when performance exceeds aspirations (Bromiley, 2005), while we argue that PE investors with larger incentives to govern *do* counteract managerial complacency. For one reason, capital markets themselves are usually satisfied when firms meet or exceed expectations and obtain risk-adjusted returns. However, “many PE firms argue that they [need to] generate returns in excess of the underlying riskiness of the portfolio” (Gompers et al., 2016: 457). Accordingly, a PE investor with larger incentives to govern, is still likely to push against managerial complacency even when performance exceeds aspirations.

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3 firms will experience less pressure from their PE investor to act in line with the PE investor's
4 preferences, which could lead to more complacency above aspirations.
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8 Overall, the baseline hypotheses related to the relationships between performance above
9 aspirations and capital investments/acquisitions will be stronger in those portfolio firms that
10 received relatively larger PE investments. Thus:
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15 *Hypothesis 2c: The higher the relative amount invested by a PE investor in a portfolio*
16 *firm, the more negative the relationship between a portfolio firm's performance above*
17 *aspirations and its capital investments.*

18 *Hypothesis 2d: The higher the relative amount a PE investor has invested in a portfolio*
19 *firm, the more positive the relationship between a portfolio firm's performance above*
20 *aspirations and its acquisition likelihood.*
21

22 23 **2.4. The moderating impact of a PE investor's influence**

24
25 The pressure of PE investors on the response of portfolio firms to performance feedback will
26 also be contingent upon their influence over management. PE investors appoint board members
27 to their portfolio firms to fulfill their monitoring and advising role (Daily et al., 2003; Manigart
28 & Wright, 2013; Wright, 2013). Boards serve multiple functions that impact firm decision-
29 making (Johnson et al., 1996; Krause et al., 2013), including providing advice (McDonald et al.,
30 2008), ensuring that managers focus on creating shareholder value (Dalton et al., 2007) and
31 securing firm resources (Hillman, 2005). Accordingly, through board representation, a PE
32 investor may influence its portfolio firms and specifically guide management's responses to
33 performance feedback.
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46 However, having board representation alone—which is standard in the PE industry due to
47 PE investors' significant ownership stakes—does not guarantee effective influence. Board
48 effectiveness relies heavily on the board's ability to direct management (Desender et al., 2016;
49 Goodstein et al., 1994), which varies significantly based on board members' human capital, i.e.
50 their context-specific experience and skills (Forbes & Milliken, 1999; Johnson et al., 1996; Kroll
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3 et al., 2008; Stevenson & Radin, 2009). Given that formal voting is rare in boardrooms, there is
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5 significant power in expertise (Finkelstein, 1992). Indeed, boardroom decision-making is
6
7 inherently a social process, where knowledge and skills are essential to effectively make
8
9 informed decisions (Forbes & Milliken, 1999; Zahra & Pearce, 1989). Consequently, more
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11 experienced board members are typically considered a unique resource for the firm (Krause et
12
13 al., 2016), which is a testament to their value and influence, and play a pivotal role in shaping a
14
15 strong board.
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19 Research in the BTOF aligns with the board literature, emphasizing that “the answer to
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21 what decisions will be made is to be found in examining who has power to apply in a particular
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23 decision context” (Pfeffer & Salancik, 1974: 136). Zhang and Greve (2019) recently showed that
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25 this also applies to boards in the context of acquisitions, revealing that boards with more high-
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27 status members tend to form stronger coalitions and exert more influence on acquisition-related
28
29 decisions. Boards look to those directors with substantial experience and expertise for advice in
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31 acquisition and investment decisions (Beckman & Haunschild, 2002; McDonald et al., 2008).
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35 In a PE context, board members with more extensive investment experience bring
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37 knowledge and skills valuable to the acquisition process, such as target identification, due
38
39 diligence, and deal negotiation. Additionally, acquisitions are complex decisions involving large
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41 amounts of data (Coff, 2003). Relatedly, more experienced PE board members can present a
42
43 broader set of valuable internal capital investments, when desirable, to management. Hence, in
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45 the decision-making process related to both acquisitions and capital investments, portfolio firm
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47 management will likely be influenced more by experienced board members whom they consider
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49 to have high levels of relevant expertise.
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3 A PE investor has a pool of individuals available for board appointments across its
4 portfolio firms (Gompers & Lerner, 1999). Some board members are more junior with less
5 investment experience, and some are more senior with more investment experience.⁶ Those
6 portfolio firms with more experienced PE board members, i.e., the “heavyweights”, should
7 experience greater influence from the PE investor than firms with less experienced ones. We
8 expect that these differences will impact how portfolio firms respond to performance feedback.
9

10 11 12 13 14 15 16 17 **2.4.1. Performance below aspirations and the PE board members’ relative investment** 18 19 **experience**

20 Our baseline predictions suggest that as performance shortfalls increase, a PE investor will try to
21 push its preferred solution towards management and increasingly prioritize capital investments,
22 rather than acquisitions. However, PE investors will be able to exert more influence on portfolio
23 firm management when they have appointed relatively more experienced board representatives
24 compared to when they have appointed more junior ones (e.g., Tykvová, 2018). Hence, the
25 relationship between performance shortfalls and capital investments (acquisition likelihood)
26 should be more positive (negative) in portfolio firms with more experienced PE board members.
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37 Conversely, the level and intensity of PE investor influence on management will be lower
38 with less experienced PE-appointed board members. As performance shortfalls increase, this
39 reduced influence will imply that the portfolio firm management will experience comparatively
40 less pressure from their PE investor and will feel held less accountable. Consequently, when
41 confronted with performance shortfalls, management in these firms will be less likely to act.
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53 ⁶ An interesting question is how a PE investor decides which investment manager to allocate to which portfolio firm.
54 While there is no prior study we can rely on, interviews with PE managers suggest it is not the case that the most
55 senior people *by definition* get assigned to the largest deals. The correlations in the current study confirm this
56 statement as the correlation between amount invested and relative investment experience in the board is low (see
57 Table 1).
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3 In summary, the baseline hypotheses concerning performance below aspirations are
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5 expected to be stronger in portfolio firms with more experienced PE board members:
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8 *Hypothesis 3a: The higher the relative investment experience of PE board members in a*
9 *portfolio firm, the more positive the relationship between performance below aspirations*
10 *and capital investments in that portfolio firm.*

11 *Hypothesis 3b: The higher the relative investment experience of PE board members in a*
12 *portfolio firm, the more negative the relationship between performance below aspirations*
13 *and acquisition likelihood in that portfolio firm.*
14

15 16 **2.4.2. Performance above aspirations and the PE board members' relative investment** 17 18 **experience**

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20 As performance exceeds aspirations, our baseline proposition is that PE investors will actively
21
22 steer management away from complacency or the status-quo, resulting in more acquisitions but
23
24 putting more constraints on new capital investments, as a single strategic response is often
25
26 preferred (Bromiley, 2005). This influence will be more pronounced in those portfolio firms
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28 where a PE investor has appointed board members with relatively greater levels of experience
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30 (e.g., Tykvová, 2018). Moreover, in portfolio firms with relatively more experienced PE board
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32 members, those board members can exert more influence by pointing management towards
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34 valuable acquisition targets and providing value-adding services (e.g., Castellaneta & Conti,
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36 2017).
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41 Similarly, in case of performance exceeding aspirations, less experienced PE-appointed
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43 board members may also—like their more experienced counterparts—aim to influence
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45 management. However, they will simply have comparatively less informal power to direct
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47 managerial actions. Moreover, less experienced PE board members in general will possess less
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49 experience with acquisitions. They more likely lack some of the expert insights needed to
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51 understand whether and which acquisitions are value-creating when the portfolio firm performs
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53 above aspirations. As such, they might be more inclined to preserve the status quo, given that the
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3 firm is already exceeding aspirations, rather than to risk guiding the firm towards acquisitions in
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5 which they lack strong experience.
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8 In summary, the baseline hypotheses related to performance above aspirations are
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10 expected to be stronger in those portfolio firms with more experienced PE board members:
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12 *Hypothesis 3c: The higher the relative experience of PE board members in a portfolio*
13 *firm, the more negative the relationship between a portfolio firm's performance above*
14 *aspirations and capital investments.*

15
16 *Hypothesis 3d: The higher the relative experience of PE board members in a portfolio*
17 *firm, the more positive the relationship between a portfolio firm's performance above*
18 *aspirations and its acquisition likelihood.*
19

20 **3. METHODS**

21 **3.1. Sample**

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23 We constructed a dataset containing information on the portfolio firms of a mid-sized European
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25 PE investor from 2013 to 2018. This PE investor invests in a wide range of industries, including
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27 healthcare, sustainability, engineered products, and ICT, using buyout transactions in various
28
29 Continental European countries. We manually gathered yearly financial and strategic
30
31 information on each portfolio firm from the time of investment up to exit. As the annual financial
32
33 information contains forecasted and realized EBITDA, we do not have to rely on assumptions
34
35 regarding how performance aspirations are built, but instead can rely on a direct measure. The
36
37 detailed financial and strategic information included in the PE investor's files, augmented with
38
39 data from the Orbis and Zephyr databases⁷, provided us with information on acquisitions and
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41 capital investments of the portfolio firms. This data collection resulted in an unbalanced panel
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43 dataset consisting of 150 firm-year observations of 51 portfolio firms.
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50 **3.2. Variables**

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54 ⁷ Both databases are managed by Bureau van Dijk—a Moody's Analytics company—and leading publisher of
55 business information on public and private firms. Orbis captures financial data on European firms (e.g., Vanacker et
56 al., 2017). Zephyr captures transaction level data, such as acquisitions, globally (e.g., Cumming et al., 2020).
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3 The dependent variables are measured at time t , and the independent and control variables are
4 measured at time $t-1$. In line with prior research, we lagged our independent variables with one
5 year as performance feedback can only take place in the next period (e.g., Audia & Greve, 2006;
6 Greve, 2008; Ref & Shapira, 2017). Moreover, by using lagged values, we reduce concerns
7 about the possibility of reverse causality.
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10 11 12 13 14 15 **3.2.1. Dependent variables**

16 We use two dependent variables in this study: capital investments and acquisition likelihood.

17
18 *Capital investments* was measured as the change in a portfolio firm's capital equipment in a year,
19 scaled by the total reported value of a firm's capital equipment at the end of the previous year
20 (e.g., Audia & Greve, 2006; Greve, 2003b). In line with prior performance feedback research, we
21 measure the likelihood of an *acquisition* as a dummy variable, equal to one if a portfolio firm
22 completed at least one acquisition in a given year, and zero otherwise (e.g., Ref & Shapira,
23 2017). In our data, we identified 50 completed acquisitions by 25 portfolio firms. As few
24 portfolio firms completed multiple acquisitions in the same year (eight percent of the
25 observations), a binary variable was preferred over a count variable.
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38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 **3.2.2. Independent variables**

40 Our independent variables are *performance below aspirations* and *performance above*
41 *aspirations* and capture the difference between observed performance and performance
42 aspiration. We measure a firm's aspiration level directly. At the end of each year, the board of a
43 PE portfolio firm determines and approves a forecasted EBITDA for the next year. This forecast
44 is used as the aspiration level for a given firm-year⁸. We hand-collected this information directly
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60 ⁸ Prior research examining performance feedback focused on a number of accounting metrics, including return on assets (Audia & Greve, 2006), market share (Greve, 1998), and return on sales (Audia et al., 2000). Our focus on EBITDA is aligned with PE industry practice (e.g., Gompers et al., 2016).

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3 from the minutes of the board meetings of each portfolio firm. Our direct measure of a firm's
4 aspirations brings important advantages over indirect measures that are used in most previous
5 studies. First, in contrast to studies that construct aspiration levels indirectly, e.g., using an
6 exponentially weighted average of past performance values or the average performance of a
7 firm's peer group, our direct measure is observable and verifiable (Blettner et al., 2015).
8
9 Traditional measures may not provide an equally accurate estimate of management's true
10 aspiration level. Second, portfolio firm management proposes the performance target, while
11 through their board representation PE investors may affect the forecast as such—as they need to
12 approve it. Both the PE investor and management confirmed (in supplementary interviews) that
13 this goal decision is primarily driven by portfolio firm management, but that these forecasts are
14 formally discussed, approved, and noted down as part of board meetings.

15
16 To construct performance below and above aspirations, we first calculated performance
17 discrepancies as the difference between a portfolio firm's forecasted and realized EBITDA,
18 scaled by forecasted EBITDA (as prior performance feedback literature uses relative rather than
19 absolute performance measures). Consistent with prior research in this domain (e.g., Joseph et
20 al., 2016; Kuusela et al., 2017), we then constructed two continuous, but censored variables:
21 performance below aspirations was measured as the absolute value of the performance
22 discrepancy if the performance discrepancy was negative, and zero otherwise, and performance
23 above aspirations as the performance discrepancy if it was positive and zero otherwise.

24 25 **3.2.3. Moderator variables**

26
27 *Relative amount invested* was measured as the amount invested by the PE investor in a given
28 portfolio firm-year, scaled by the total amount invested by the PE investor across all its portfolio
29 firms in that year. To capture *relative investment experience*, we scaled the cumulative years of

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3 investment experience of all PE-appointed board members in a given portfolio firm-year by the
4 cumulative years of investment experience of all PE-appointed board members across all its
5 portfolio firms in that year.⁹
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8 9 10 **3.2.4. Control variables**

11 We control for several variables that are standard in studies on the consequences of performance
12 feedback as well as some more specific to our context. First, to control for the possibility that
13 acquisitions are part of the initial investment strategy of the PE investor, we included a dummy,
14 *initial acquisition strategy*, indicating whether acquisitions were part of the initial investment
15 thesis. Second, we added *years since entry*, measured as the number of years since the PE
16 investor made the investment (Guo et al., 2011). By including time since entry, we consider that
17 portfolio firms which received investments later on in the lifecycle of the PE fund may exhibit
18 different behaviors. Third, we included *PE ownership*, measured as the percentage of equity
19 owned by PE investors, and *PE board chair*, a dummy equaling one if the PE investor appointed
20 the board chair, as more PE ownership and board control may result in more active involvement
21 in the decision-making process (Gompers et al., 2016). Fourth, we control for *syndicate*
22 investments as a dummy variable, equal to one if two or more PE investors invested in
23 syndication, and zero otherwise. Syndicated PE investments may be related to our key variables
24 as syndication has been associated with better deal flow and decision-making, and a larger pool
25 of resources, but may also affect monitoring intensity (e.g., Lockett & Wright, 2001; Manigart et
26 al., 2006; Meuleman et al., 2009b). We also added *management ownership*, measured as the
27 percentage of equity owned by a portfolio firm's managers. Management ownership is a well-
28 known incentive alignment strategy of PE investors (Jensen, 1989), i.e., the stronger a manager's
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55 ⁹ The PE board members in our sample had on average 24.9 years of investment experience and amounts invested
56 ranged from 3 million EUR up to 42.44 million EUR.
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3 financial incentive to remain involved with the firm, the more a PE investor can rely on a
4 manager's firm-specific knowledge and experience (e.g., Bruton et al., 2010; Schulze et al.,
5 2003). Further, because *firm age* is likely to affect the investment stage of a portfolio firm, we
6 also control for firm age measured as the log-transformed number of years since formal
7 incorporation. The size of the firm can influence available resources—which can thus influence
8 its acquisition and investment behavior (e.g., Kuusela et al., 2017). Therefore, we also controlled
9 for *firm size*, measured as the natural logarithm of total assets.

19 Next, it is well known that a firm's responses to performance feedback may be influenced
20 by the availability of slack resources (e.g. Iyer & Miller, 2008; Kuusela et al., 2017).

23 Accordingly, we controlled for *financial slack*, measured as the ratio of cash to total assets, and
24 *potential slack*, measured as the ratio of equity to debt (e.g. Iyer & Miller, 2008). Furthermore,
25 we also control for *board interlocks*, which are established when a PE investment manager
26 sitting on the board of one portfolio firm also serves on the board of another portfolio firm
27 (Tuschke et al., 2014). Board interlocks often function as an important source of organizational
28 learning by observing the behaviors and experiences of other firms (Kim & Miner, 2007; Zona et
29 al., 2018). Accordingly, this may influence a portfolio firm's strategic behavior when confronted
30 with performance discrepancies. Therefore, we added board interlocks, measured as the number
31 of board interlocks of the PE board members (Martin et al., 2015; Tuschke et al., 2014). Finally,
32 we included *year fixed effects* to account for remaining variance in macro-economic conditions.

3.3. Econometric approach

49 Given the longitudinal nature of our data, we use a generalized estimating equation (GEE) model
50 with a panel data structure to analyze the data. A key benefit of this model is that it allows to
51 specify a correlation matrix that accounts for the within-subject correlation of acquisitions or
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capital investments over time (Ballinger, 2004). Another advantage is that this model can handle dependent variables with different distributions (Ballinger, 2004). When specifying the distribution of our dependent variable, we chose a normal (gaussian) link in models for capital investment and a logit link in our models for acquisition likelihood.¹⁰ We winsorized continuous variables at the top and bottom 2.5 percent to reduce potential bias due to outliers.¹¹

4. RESULTS

4.1. Main findings

Table 1 summarizes the descriptive statistics and presents the correlation matrix for the variables used in the empirical models. Variance inflation factors (VIFs) had an average value of 2.18 (2.13) in models for capital investment (acquisition likelihood) and a maximum value of 4.29 (for the firm size variable). Further, we conducted a multicollinearity diagnostic test using the coldiag procedure of Belsley et al. (1980). This test showed that the condition number of our complete model is 7.53, well below the threshold of 30. Combined, this reduces the concern of multicollinearity affecting our results.

[Insert Table 1 here]

In Table 2, we present the results of the capital investment models, while in Table 3 we present the results for acquisition likelihood. Model 1 includes control, independent and moderator variables, Models 2, 3, 4 and 5 add each of the hypothesized interactions for performance below aspirations and performance above aspirations individually and Model 6 presents the full model including all interactions jointly. Below we focus our discussion on the full model results.

¹⁰ Thus, related to acquisitions, we use GEE discrete-time survival models (e.g., Haveman & Nonnemaker, 2000). We rely on yearly data, which makes it more appropriate to use such discrete-time methods, relative to continuous-time methods (such as Cox regressions) (Allison, 1995).

¹¹ Our main results are also robust to using a 5 percent level of winsorization.

[Insert Table 2 and 3 here]

Hypothesis 1a predicted that the relationship between performance below aspiration and capital investments would be positive, whereas Hypothesis 1b predicted it would be negative for acquisition likelihood. Hypothesis 1a is supported, as the coefficient of the main effect of performance below aspiration is significant in Model 1 (Table 2: $\beta = 0.007$, $p = .037$). As there is no statistically significant main effect of performance below aspirations and acquisition likelihood in Model 1, we do not find support for Hypothesis 1b (Table 3: $\beta = -0.009$, $p = .209$).¹²

Hypothesis 1c predicted that in the average PE-backed company performance above aspiration would negatively impact capital investments, while Hypothesis 1d predicted it would positively impact acquisition likelihood. Neither hypothesis could be supported due to a lack of statistical significance (Table 2: $\beta = -0.012$, $p = .515$; Table 3: $\beta = -0.008$, $p = .480$).

Hypothesis 2a (2b) predicted that the relationship between performance below aspiration and capital investments (acquisition likelihood) would be more positive (negative) the higher the relative amount invested by the PE investor. Providing support for H2a, we find that the coefficient estimate for performance below aspiration \times relative amount invested is positive and significant in Model 6 in Table 2 ($\beta = 0.603$, $p = .019$). Supporting H2b, the coefficient estimate for performance below aspiration \times relative amount invested is negative and significant in Model 6 in Table 3 ($\beta = -3.006$, $p = .012$).

Figure 1 illustrates the respective interactions. This figure, which was constructed using the methodology proposed by Meyer et al. (2017), shows the marginal effect of performance below aspiration on capital investments (left-hand panel) and acquisition likelihood (right-hand

¹² Remark that the coefficient is significant in the models including the moderator variables, where the goodness-of-fit statistics is also much higher.

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3 panel) for the full range of values in relative amount invested. Compared to a traditional
4
5 approach where interaction effects are only visualized at a selected number of values for the
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7 moderator (e.g., one SD below and above the mean), these figures allow for a more rigorous
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9 interpretation of the magnitude and nature of an interaction effect, and is a particularly relevant
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11 approach when interpreting interaction effects in nonlinear models (e.g., Norton et al., 2004).¹³
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14 The two outer lines in these figures represent the 95% confidence range for the marginal effect of
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16 performance below aspiration on the respective dependent variable, so that the effect is positive
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18 if both lines are above the horizontal zero line, and negative if both lines are below the horizontal
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20 zero line. Figure 1 is illuminating as it suggests that (1) the main effect of performance below
21
22 aspiration on capital investments is positive, while negative for acquisition likelihood (most
23
24 values lie below the horizontal zero line for acquisition likelihood, and above it for capital
25
26 investments); (2) the effect of performance below aspiration on capital investments (acquisition
27
28 likelihood) becomes more positive (negative) for increasing values of relative amount invested
29
30 (i.e., moving to the right in the graph); (3) the effect on capital investments and acquisition
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32 likelihood turns insignificant for low values of relative amount invested (points at the left of both
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34 panels). Thus, we find support for both H2a and H2b.
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40 [Insert Figure 1 here]

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42 Hypothesis 2c (2d) predicted that the relationship between performance above aspiration
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44 and capital investments (acquisition likelihood) would be more negative (positive) when the
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46 relative amount invested by the PE investor is higher. Turning back to Table 2, for H2c, the
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48 coefficient estimate for performance above aspiration \times relative amount invested on capital
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50 investments is negative and marginally significant ($\beta = -1.147$, $p = .087$, Model 6). Supporting
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56 ¹³ For comprehensiveness, we also report the standard interaction effect plots in the online appendix.
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3 H2d, we find that the coefficient estimate for performance above aspiration \times relative amount
4 invested is positive and significant in Model 6 of Table 3 ($\beta = 4.953$, $p = 0.003$).

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8 Figure 2 illustrates these interactions. The left-hand panel of Figure 2 shows how the
9 effect of performance above aspiration on capital investment is weakly positive at low values of
10 relative amount invested (one SD below the mean) but is negative at high values of relative
11 amount invested. Hence, H2c is weakly supported. The right-hand side of Figure 2 shows that
12 the effect of performance above aspiration on acquisition likelihood increases with increasing
13 values of relative amount invested (the line has a positive slope). Furthermore, while the effect is
14 negative for low to moderate values of relative amount invested, there is a range of values where
15 the effect is positive, i.e. when relative amount invested is above 0.05 (about one SD above its
16 mean value). Thus, we find support for H2d.

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28 [Insert Figure 2 here]

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31 Hypothesis 3a (3b) predicted that the relationship between performance below aspiration
32 and capital investments (acquisition likelihood) would be more positive (negative) the higher the
33 relative investment experience of PE-affiliated board members. Supporting H3a, the coefficient
34 estimate in the capital investment model (Table 2) for performance below aspiration \times relative
35 investment experience is positive and significant ($\beta = 0.634$, $p = .002$, Model 6). Supporting
36 H3b, the coefficient estimate in the acquisition model (Table 3) for performance below aspiration
37 \times relative investment experience is negative and significant in Model 6 ($\beta = -1.032$, $p = .002$).

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47 Figure 3 clarifies these effects. The left-hand panel of the figure illustrates that the effect
48 of performance below aspirations on capital investments is positive and increasing with relative
49 investment experience for moderate to high values of relative investment experience, and
50 insignificant for low values of relative investment experience. The right-hand panel shows that
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3 the effect of performance below aspirations on acquisition likelihood becomes more negative for
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5 increasing values of relative investment experience, while it is insignificant for low values of
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7 relative investment experience. Combined, these results are in line with H3a and H3b.
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10 [Insert Figure 3 here]
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12 Finally, Hypothesis 3c (3d) predicted that the relationship between performance above
13 aspiration and capital investments (acquisition likelihood) would be more negative (positive) the
14 higher the relative investment experience of PE-affiliated board members. For capital
15 investments, we find that, contrary to our expectations, the coefficient estimate for performance
16 above aspiration \times relative investment experience is positive and marginally significant (Table 2,
17 $\beta = 1.971$, $p = .063$, Model 6). Again, contrary to our expectations, the coefficient estimate for
18 performance above aspiration \times relative investment experience is negative and significant in the
19 acquisition likelihood models (Table 3, Model 6, $\beta = -6.302$, $p = .013$). We also note this effect is
20 not statistically significant when included individually (Table 3, Model 5, $\beta = 0.542$, $p = n.s.$).¹⁴
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33 Figure 4 supports these findings. The left-hand panel of Figure 4 shows how the effect of
34 performance above aspiration on capital investment is weakly negative at low values of relative
35 investment experience, but positive at high values of relative investment experience. Thus, H3c
36 is not supported. The right-hand side of Figure 4 shows that the effect of performance above
37 aspiration on acquisition likelihood declines with increasing values of relative investment
38 experience (the line has a negative slope). Furthermore, while the effect is negative for moderate
39 to high values of relative investment experience, there is a range of values where the effect is
40 insignificant, i.e., when relative investment experience is below 0.03 (about its mean). Thus, we
41 do not find support for H3d. We come back to these surprising findings in our discussion.
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55 ¹⁴ Having effectively ruled out multicollinearity above, this result would imply that the effect of performance above
56 aspiration on acquisition likelihood is not adequately explained by any single moderator alone.
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[Insert Figure 4 here]

4.2. Robustness tests and supplementary analyses

Prior research has shown that board interlocks may result in more opportunism (Hillman & Dalziel, 2003; Zona et al., 2018). When a PE-affiliated board member is active on multiple boards, it may be that high performance in one portfolio firm reduces the board member's incentive to be actively involved in other portfolio firms' boards. To control for this potential influence on our dependent variables, we added a star interlock dummy as additional control in our models. This variable was equal to one if at least one of the PE-affiliated board members in a portfolio firm served on the board of another portfolio firm that was performing above aspirations, and zero otherwise. Results remained consistent.

Finally, because the effects of the control variables might differ when performance is either above or below aspirations, we reran our analyses with a split sample including only the observations where performance was above aspirations, or below aspirations, respectively. The overall pattern of results remained consistent with our main analyses.

5. CONCLUSION AND DISCUSSION

Capital investments and acquisitions are frequently used growth strategies by PE investors and their portfolio firms. Integrating the BTOF with a corporate governance perspective, we argued that an individual PE investor may have varying incentives and influence to intervene in their portfolio firms, which may in turn shape how portfolio firm management reacts to both positive and negative performance discrepancies.

5.1. Contributions

The entry of a PE investor announces the beginning of a new era for a portfolio firm; the bar is raised, new aspirations are set, and moving forward the PE investor will have a say in how the firm is run. As such, the PE context provides an interesting backdrop to examine traditional

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3 predictions made by the BTOF. First, the PE context—where the goal is to maximize value
4 creation and return potential—requires a novel take on aspirations as such. Traditional ways of
5 measuring aspirations, based on prior or industry peer performance, are largely irrelevant in this
6 context where the very entry of a PE investor will imply a drastic change in aspirations. Hence,
7 direct aspirations, set by PE investor and management, are theoretically relevant and important to
8 consider. Indeed, unreported tests comparing the traditional measures of aspirations and our
9 direct measure indicate that social aspirations have no significant explanatory power, while
10 historical ones have partial explanatory power. Moreover, we find low correlations between the
11 “traditional” and direct aspiration measures. These findings suggest that aspirations might be set
12 fundamentally different in different settings (i.e., the PE setting) so that traditional approaches do
13 not work well in all contexts. Moreover, it also highlights the importance of recognizing such
14 complexities and moving beyond traditional measures. Failing to do so may hinder our ability to
15 uncover robust relationships between aspirations and strategic actions, as demonstrated by our
16 direct aspiration measure.

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Second, scholars have called for integrating the BTOF with corporate governance (e.g.,
Van Ees et al., 2009; Gavetti et al., 2012) to understand how a firm’s governance affects the
pressures management is under and consequently how management reacts to performance
feedback. Our study extends prior research in this domain by arguing that a powerful owner such
as a PE investor will govern how management reacts to performance feedback—as in, through
which growth strategy—depending on (1) the performance context of the portfolio firm and (2)
the owner’s incentives and influence to impact portfolio firms. While we generally failed to
uncover significant main effects of performance below and above aspirations on our dependent
variables (the significant positive relation between performance below aspirations and capital

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3 investments is the exception), the results of our interaction effects show this is due to varying
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5 incentives and influence of a PE investor to monitor and intervene across its portfolio of firms.
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8 We find that a PE investor will push more for capital investments but deter acquisitions
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10 as performance shortfalls increase in a given portfolio firm, when they have made a relatively
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12 larger investment in that portfolio firm. Hence, when a PE investor has substantial incentives to
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14 monitor a portfolio firm, results align with those found in most prior BTOF studies. Interestingly
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16 though, most of the prior BTOF studies were conducted in the context of large and/or public
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18 firms where extensive market oversight is standard—which would hence more closely align with
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20 extensive PE investor monitoring. With far less oversight though, as would be the case in those
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22 portfolio firms that represent a relatively smaller investment in a PE investor’s portfolio, we see
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24 these traditional predictions do not hold. In line with our theorizing, the effect of performance
25
26 below aspiration on acquisition likelihood and capital investments turns insignificant when a PE
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28 investor has invested only a relatively low amount. This suggests that with little oversight,
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30 management of portfolio firms will be far less compelled nor pushed to take action—regardless
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32 of which growth strategy is considered. A similar conclusion holds for a PE investor’s influence:
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34 when a PE investor has appointed relatively experienced board members, who should be better
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36 able to influence management of portfolio firms, we find results in line with those of prior BTOF
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38 studies. Yet, when influence is low—i.e. when appointed board members are relatively junior—
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40 inaction on portfolio firm management’s side is the consequence. Combined, this shows the
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42 relevance of an owner’s incentive and influence to govern as with limited effective oversight
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44 management may not behave in line with what the BTOF would prescribe. Put differently, it
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46 seems traditional BTOF predictions when it concerns how firms react to negative performance
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48 feedback mainly hold in a context of strong and effective oversight.
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3 Further, one of the core predictions of the BTOF is that strategic change is most likely
4 when performance falls below aspirations (Cyert & March, 1963). Based on this prediction, most
5 studies in the BTOF domain have focused on explaining strategic change when faced with
6 performance shortfalls (Posen et al., 2018). Far less studies have examined scenarios of
7 overperformance, and those that did generally resulted in a picture consistent with BTOF,
8 namely one of managerial complacency and caution, and reduced initiative (e.g., Arrfelt et al.,
9 2013; Joseph et al., 2016). Also here, the PE context provides a theoretically relevant context as
10 a PE investor's goal to maximize value creation and return would be at odds with taking no
11 further action when a portfolio firm would surpass expectations. Here, we expected a PE investor
12 to generally have a preference for acquisitions over capital investments, resulting in more of the
13 former and less of the latter given a finite amount of resources and managerial attention. In line
14 with the governance perspective outlined above, we expected that in those portfolio firms where
15 a PE investor had more incentives and influence to intervene, portfolio firms would experience
16 more pressure to do acquisitions, while being discouraged from increasing capital investments.
17 While we find general support for this notion in case of incentives to intervene (i.e., portfolio
18 firms with larger investments will face more pressure from their PE investor), we found the
19 opposite effect for influence (i.e., portfolio firms with more experienced PE representatives on
20 the board). Hence, this would suggest that when owners have a stronger incentive to monitor and
21 intervene in their portfolio firms, traditional BTOF prescriptions as to how firms react to positive
22 performance feedback do not hold.

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49 The results of investment experience ran counter to our expectations both for capital
50 investments and acquisitions (even though the latter one needs to be interpreted with care). The
51 strongest effects here could be observed for those firms with more experienced PE board
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3 members who seem to push back on acquisitions but in favor of capital investments in case of
4 overperformance. One possible explanation here could be that more experienced PE
5 representatives might focus more on retaining their established reputations and avoid taking on
6 additional risks by pursuing acquisitions when firms already perform substantially above
7 aspirations (hence behaving more in line with core BTOF predictions). Theoretically, and in line
8 with a broad empirical literature (e.g., Finkelstein, 1992), we had expected experience to be a
9 proxy for the influence board members have on the strategic decision-making process, i.e. with
10 more experienced board members being able to weigh more heavily on the discussion and
11 increasing their likelihood of being listened to, as they are assumed to be the experts. We do,
12 however, acknowledge that influence may result from other sources too which we do not capture
13 in the current study. Moreover, our alternative explanation suggests experience itself may also
14 map onto different concepts beyond influence, such as reputational concerns. We invite further
15 research to disentangle these concepts so we can more comprehensively understand through
16 which mechanisms individuals affect firm-level BTOF relationships.

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19 More generally, our findings regarding overperformance raise the question of when
20 solution search is halted, which is typically assumed to happen when firms reach their aspiration
21 point. Our study suggests that an owner with high incentives may be a powerful force to push
22 management to continue seeking value creation. Conversely, low incentives (or more
23 conservative behavior) may accelerate the cessation of solution search. Combined, this suggests
24 owners as key coalition members—and particularly, their incentives—may have an important
25 role in determining when solution search is stopped.

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28 Overall, this study sheds light not only on *when* PE investors are more likely to intervene
29 in their portfolio firms, but also *how* they prefer to do so. That is, our theory and findings suggest

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3 that a PE investor approaches both types of growth strategies, i.e., acquisitions or internal capital
4 investments, differently, with acquisitions mainly being pushed in more positive performance
5 scenarios (i.e., in case of minor performance shortfalls or overperformance) and internal growth
6 being preferred in case of larger performance shortfalls. The strength of these relationships is,
7 however, moderated by a PE's incentives and influence to govern management. These findings
8 extend the notion of PE investors as effective and active monitors as they suggest that PE
9 investors can effectively curb managerial complacency (e.g., in the case of overperformance) and
10 direct management towards more value-creating growth strategies in case of underperformance.
11 More broadly, it further opens the black box of PE investor monitoring and involvement
12 behaviors (Manigart & Wright, 2013).
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26 In line with prior research, our study provides support for the notion that owners may
27 have a substantial effect on management's solution search when confronted with performance
28 feedback (e.g., O'Brien & David, 2014). We extend this line of research in multiple important
29 ways. First, our study suggests that an owner's incentive and influence to govern management—
30 which may vary substantially across a portfolio of investments—are consequential to
31 organizational change. Particularly, these dimensions not only affect the extent of pressure
32 owners may exercise on management, but also the type of pressure they exercise, i.e., in terms of
33 pushing for or against a specific type of strategic change (e.g., pushing more against acquisitions
34 in case of larger performance shortfalls, but more for them in case of overperformance). They
35 also affect the type of strategic change preferred, e.g., capital investments are preferred over
36 acquisitions in case of larger performance shortfalls.
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51 As such, we provide more direct and in-depth evidence for a core BTOF prediction,
52 namely that management's solution search is shaped by the preferences of powerful coalitions in
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3 the firm (Cyert & March, 1963; Gavetti et al., 2012). However, those preferences are not
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5 universal; the idea of attention focus (Cyert & March, 1992) proves useful to theorize about
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7 when under- or overperformance would be more likely to catch the attention of powerful
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9 coalition members, making them more likely to take action. Along the same lines, the very
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11 notion of coalition formation assumes a process of political dynamics (Cyert & March, 1963)—
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13 one in which influence is crucial. Yet what shapes this influence has been largely overlooked up
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15 to now. While our study focuses on the portfolio firm level, the results related to board members'
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17 investment experience suggest there is merit in more deeply integrating individual-level factors
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19 into the BTOF. Future research could expand this by adopting a micro-foundations perspective
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21 (e.g., Felin et al., 2015) and more explicitly disentangle how aspects of individual motivation and
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23 cognition “interact and aggregate to generate macro-level phenomena” (Aggarwal et al., 2017:
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25 1213), such as firm change.
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31 Second, in their seminal work, March and Simon (1958) and Cyert and March (1963)
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33 proposed that problemistic search is mainly local, whereby local has typically been defined in
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35 terms of familiarity and expertise with a possible solution (Posen et al., 2018). In the PE context,
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37 both capital investments and acquisitions are well-known and often relied upon growth
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39 strategies. By examining both types of strategic change simultaneously, our study suggests that
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41 what constitutes local search may be a factor of what is deemed most appropriate in that context.
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43 Our empirical models reveal that when confronted with performance shortfalls, acquisitions are
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45 far less likely whereas capital investments are far more, which suggests that a PE investor pushes
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47 management more towards one growth strategy (i.e., capital investments) over the other (i.e.,
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49 acquisitions). The interviews we conducted further corroborate that PE investors deem capital
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51 investments a far better solution than acquisitions to address large performance shortfalls.
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3 Conversely, when performance shortfalls are smaller or in cases of overperformance,
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5 acquisitions are seen as a more effective engine for future growth (although incentives and
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7 reputational concerns may play into this). So, our study contributes to the understanding of
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9 familiarity and expertise in local search by highlighting that the appropriateness of a particular
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11 solution varies across performance contexts.
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14 **5.2. Practical implications**

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16 Our findings have important implications for PE investors and portfolio firm managers. PE
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18 investors often try to strongly affect a portfolio firm's decision-making process, i.e., they
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20 evaluate the functioning of the firm, and look for ways to improve and/or accelerate portfolio
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22 firm growth, with as ultimate goal to optimize shareholder value at exit. However, our results
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24 suggest that PE investors should be aware that their impact is constrained by their willingness to
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26 exert effort as well as by their influence. Getting more influence is something they can achieve
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28 through appointing board members with sufficient experience; appointing too junior investment
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30 managers may harm their influence in portfolio firms performing below targets. However, senior
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32 investment managers may become somewhat risk-averse or conservative when portfolio firms
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34 perform above aspirations, which may be another factor to be considered. This additionally may
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36 require more follow-up from an investment committee's perspective, for instance, bearing in
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38 mind we do not have insight into the value-creation consequences of these strategic actions.
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45 Finally, more PE investor power may come at a cost in terms of managers' bargaining
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47 position and decision-making discretion. Thanks to a PE buyout, managers become shareholders
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49 of the firms they are active in, but by involving external parties, they also expose themselves to
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51 the risks of retaining little residual power in the decision-making process (Wynant et al., 2023).
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54 Nevertheless, although managers might have to accept decisions they would not have taken
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3 themselves, these decisions can enhance value creation in their firm, as this active involvement is
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5 also what entails the added value of PE investors. Through their investing experience, PE
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7 investors assist their portfolio firms to help them grow, either through internal investments or
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9 acquisitions.
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11 REFERENCES

- 12
13 Aggarwal, V.A., Posen, H.E., Workiewicz, M. (2017). Adaptive capacity to technological
14 change: A micro-foundational approach. *Strategic Management Journal*, 38(6), 1212-1231.
15 Ahuja, G., & Katila, R. (2001). Technological acquisitions and the innovation performance of
16 acquiring firms: A longitudinal study. *Strategic Management Journal*, 22(3), 197–220.
17 Aktas, N., de Bodt, E. & Samaras, V. (2008). Do acquisitions and internal growth impact
18 differentially firm performance? *Working paper*.
19 Allison, P. D. (1995). *Survival Analysis using the SAS System*. Cary, NC: SAS Institute.
20 Arrfelt, M., Wiseman, R., Hult, T. (2013). Looking backward instead of forward: aspiration-
21 driven influences on the efficiency of the capital allocation process. *Academy of Management*
22 *Journal*, 56(4), 1081-1103.
23 Audia, P. G., & Greve, H. R. (2006). Less Likely to Fail: Low Performance, Firm Size, and
24 Factory Expansion in the Shipbuilding Industry. *Management Science*, 52(1), 83–94.
25 Audia, P. G., Locke, E. A., & Smith, K. G. (2000). The Paradox of Success: An Archival and a
26 Laboratory Study of Strategic Persistence Following Radical Environmental Change. *Academy*
27 *of Management Journal*, 43(5), 837–853.
28 Ballinger, G. A. (2004). Using Generalized Estimating Equations for Longitudinal Data
29 Analysis. *Organizational Research Methods*, 7(2), 127–150.
30 BCG. 2015. From acquiring growth to growing value. Retrieved from
31 [https://www.bcg.com/publications/2015/merger-acquisitions-divestitures-from-acquiring-](https://www.bcg.com/publications/2015/merger-acquisitions-divestitures-from-acquiring-growth-growing-value)
32 [growth-growing-value](https://www.bcg.com/publications/2015/merger-acquisitions-divestitures-from-acquiring-growth-growing-value)
33 Beckman, C. M., & Haunschild, P. R. (2002). Network learning: The effects of partners'
34 heterogeneity of experience on corporate acquisitions. *Administrative Science Quarterly*, 47(1),
35 92–124.
36 Bernstein, S., Lerner, J., & Mezzanotti, F. (2019). Private equity and financial fragility during
37 the crisis. *The Review of Financial Studies*, 32(4), 1309-1373.
38 Blettner, D. P., He, Z.-L., Hu, S., & Bettis, R. A. (2015). Adaptive aspirations and performance
39 heterogeneity: Attention allocation among multiple reference points. *Strategic Management*
40 *Journal*, 36(7), 987–1005.
41 Bonini, S., Alkan, S., & Salvi, A. (2011). The Effects of Venture Capitalists on the Governance
42 of Firms. *Corporate Governance: An International Review*, 20(1), 21–45.
43 Bromiley, P. (2005). *The behavioral foundations of strategic management*. Malden, MA:
44 Blackwell Pub.
45 Bruton, G. D., Filatotchev, I., Chahine, S., & Wright, M. (2010). Governance, ownership
46 structure, and performance of IPO firms: The impact of different types of private equity
47 investors and institutional environments. *Strategic Management Journal*, 31(5), 491–509.
48 Butler, P. (2001). The alchemy of LBOs. *The McKinsey Quarterly*, 2, 140-151.
49 Buyl, T., & Boone, C. (2014). Exploration versus exploitation: the differential impact of
50
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54
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59
60

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2
3 historical and social comparison performance feedback on executives' cognitive orientation. In
4 Das, T. (ed.) *Behavioral Strategy: Emerging Perspectives*. Information Age Publishing,
5 Charlotte, NC.
- 6
7 Castellaneta, F., & Conti, R. (2017). How does acquisition experience create value? Evidence
8 from a regulatory change affecting the information environment. *European Management*
9 *Journal*, 35(1), 60-68.
- 10 Chatterjee & Hambrick 2007
- 11 Coff, R. (2003). Bidding Wars Over R&D-Intensive Firms: Knowledge, Opportunism, and the
12 Market for Corporate Control. *Academy of Management Journal*, 46(1), 74–85.
- 13 Collewaert, V., Vanacker, T., Anseel, F., & Bourgois, D. (2021). The sandwich game: Founder-
14 CEOs and forecasting as impression management. *Journal of Business Venturing*, 36(1),
15 106075.
- 16
17 Cumming, D. J., & Johan, S. (2017). The Problems with and Promise of Entrepreneurial Finance.
18 *Strategic Entrepreneurship Journal*, 11(3), 357–370.
- 19 Cumming, D., Peter, R., & Tarsalewska, M. (2020). Public-to-private buyouts and innovation.
20 *British Journal of Management*, 31(4), 811-829.
- 21 Cyert, R. M., & March, J. G. (1963). *A behavioral theory of the firm*. Englewood Cliffs, NJ:
22 Prentice Hall.
- 23
24 Cyert, R. M., & March, J. G. (1992). *A behavioral theory of the firm*. Englewood Cliffs, NJ:
25 Prentice Hall.
- 26 Daily, C. M., Dalton, D. R., & Cannella, A. A. (2003). Corporate governance: Decades of
27 dialogue and data. *Academy of Management Review*, 28(3), 371–382.
- 28 Dalton, D. R., Hitt, M. A., Certo, S. T., & Dalton, C. M. (2007). The Fundamental Agency
29 Problem and Its Mitigation: Independence, Equity, and the Market for Corporate Control.
30 *Academy of Management Annals*, 1(1), 1–64.
- 31 Datta, D., Pinches, G., & Narayanan, V. (1992). Factors influencing wealth creation from
32 mergers and acquisitions: A meta-analysis. *Strategic Management Journal*, 13(1), 67-84.
- 33 Delmar, F., Davidsson, P., Gartner, W. (2003). Arriving at the high-growth firm. *Journal of*
34 *Business Venturing*, 18(2), 189-216.
- 35
36 Desender, K., Aguilera, R., Lopezpuertas-Lamy, M., Crespi, R. (2016). A clash of governance
37 logics: foreign ownership and board monitoring. *Strategic Management Journal*, 37: 349-369.
- 38 Felin, T., Foss, N., Ployhart, R. (2015). The microfoundations movement in strategy and
39 organization theory. *The Academy of Management Annals*, 9(1), 575-632.
- 40 Finkelstein, S. (1992). Power in Top Management Teams: Dimensions, Measurement, and
41 Validation. *Academy of Management Journal*, 35(3), 505–538.
- 42
43 Forbes, D. P. (2005). Are some entrepreneurs more overconfident than others? *Journal of*
44 *Business Venturing*, 20(5), 623-640.
- 45
46 Forbes, D. P., & Milliken, F. J. (1999). Cognition and corporate governance: Understanding
47 boards of directors as strategic decision-making groups. *Academy of Management Review*,
48 24(3), 489–505.
- 49 Gavetti, G., Greve, H., Levinthal, D., Ocasio, W. (2012). The Behavioral Theory of the Firm:
50 Assessment and Prospects. *Academy of Management Annals*, 6(1), 1-40.
- 51 Gifford, S. (1997). Limited attention and the role of the venture capitalist. *Journal of Business*
52 *Venturing*, 12(6), 459–482.
- 53
54 Ghosh, A. (2004). Increasing market share as a rationale for corporate acquisitions. *Journal of*
55 *Business Finance and Accounting*, 31(1-2), 209-247.
- 56
57
58
59
60

- 1
2
3 Gompers, P. (1995). Optimal investment, monitoring, and the staging of venture capital. *Journal*
4 *of Finance*, 50(5), 1461-1489.
- 5 Gompers, P., Kaplan, S., & Mukharlyamov, V. (2016). What do private equity firms say they
6 do? *Journal of Financial Economics*, 121(3), 449–476.
- 7 Gompers, P., & Lerner, J. (1999). An analysis of compensation in the U.S. venture capital
8 partnership. *Journal of Financial Economics*, 51(1), 3–44.
- 9 Goodstein, J., Gautam, K., Boeker, W. (1994). The effects of board size and diversity on
10 strategic change. *Strategic Management Journal*, 15, 241-250.
- 11 Greve, H. R. (1998). Performance, Aspirations, and Risky Organizational Change.
12 *Administrative Science Quarterly*, 43, 58–86.
- 13 Greve, H. (2003a). A behavioral theory of R&D expenditures and innovations: Evidence from
14 shipbuilding. *Academy of Management Journal*, 46(6), 685-702.
- 15 Greve, H. (2003b). Investment and the behavioral theory of the firm: Evidence from
16 shipbuilding. *Industrial and Corporate Change*, 12(5), 1051-1076.
- 17 Greve, H. R. (2008). A Behavioral theory of firm growth: Sequential attention to size and
18 performance goals. *Academy of Management Journal*, 51(3), 476–494.
- 19 Guo, S., Hotchkiss, E. S., & Song, W. (2011). Do buyouts (still) create value?. *The Journal of*
20 *Finance*, 66(2), 479-517.
- 21 Hammer, B., Knauer, A., Pflücke, M., & Schwetzler, B. (2017). Inorganic growth strategies and
22 the evolution of the private equity business model. *Journal of Corporate Finance*, 45, 31–63.
- 23 Hammer, B., Hinrichs, H., Schweizer, D. (2022a). What is different about private equity-backed
24 acquirers? *Review of Financial Economics*, 40(2), 117-149.
- 25 Hammer, B., Marcotti-Dehm, N., Schweizer, D., Schwetzler, B. (2022b). Pricing and value
26 creation in private equity-backed buy-and-build strategies. *Journal of Corporate Finance*, 77,
27 102285. <https://doi.org/10.1016/j.jcorpfin.2022.102285>
- 28 Haveman, H. A., & Nonnemaker, L. (2000). Competition in multiple geographic markets: The
29 impact on growth and market entry. *Administrative Science Quarterly*, 45(2), 232-267.
- 30 Heger, D., & Tykvová, T. (2009). Do venture capitalists give founders their walking papers?
31 *Journal of Corporate Finance*, 15(5), 613–625.
- 32 Hillman, A. J. (2005). Politicians on the Board of Directors: Do Connections Affect the Bottom
33 Line? *Journal of Management*, 31(3), 464–481.
- 34 Hillman, A. J., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating
35 agency and resource dependence perspectives. *Academy of Management Review*, 28(3), 383–
36 396.
- 37 Iyer, D. N., & Miller, K. D. (2008). Performance Feedback, Slack, and the Timing of
38 Acquisitions. *Academy of Management Journal*, 51(4), 808–822.
- 39 Jensen, M. (1989). Active investors, Lbos, and the privatization of bankruptcy. *Journal of*
40 *Applied Corporate Finance*, 2(1), 35-44.
- 41 Johnson, J. L., Daily, C. M., & Ellstrand, A. E. (1996). Boards of Directors: A Review and
42 Research Agenda. *Journal of Management*, 22(3), 409–438.
- 43 Joseph, J., Klingebiel, R., & Wilson, A. J. (2016). Organizational Structure and Performance
44 Feedback: Centralization, Aspirations, and Termination Decisions. *Organization Science*,
45 27(5), 1065–1083.
- 46 Kaplan, S. N., & Strömberg, P. (2009). Leveraged buyouts and private equity. *Journal of*
47 *Economic Perspectives*, 23(1), 121-146.
- 48
49
50
51
52
53
54
55
56
57
58
59
60

- 1
2
3 Kaul, A., & Wu, B. (2016). A capabilities-based perspective on target selection in acquisitions.
4 *Strategic Management Journal*, 37(7), 1220-1239.
- 5 Kavusan, K., & Frankort, H. (2019). A behavioral theory of alliance portfolio reconfiguration:
6 Evidence from pharmaceutical biotechnology. *Strategic Management Journal*, 40(10), 1668-
7 1702.
- 8
9 Kim, J. Y., & Miner, A. S. (2007). Vicarious learning from the failures and near-failures of
10 others: Evidence from the U.S. commercial banking industry. *Academy of Management*
11 *Journal*, 50(3), 687-714.
- 12 King, M., Dalton, D., Daily, C., & Covin, J. (2004). Meta-analyses of post-acquisition
13 performance: indications of unidentified moderators. *Strategic Management Journal*, 25(2),
14 187-200.
- 15 Klarner, P., Yu, Q., Yoshikawa, T., Hitt, M. (2022). Board governance of strategic change: An
16 assessment of the literature and avenues for future research. *International Journal of*
17 *Management Reviews*, <https://doi.org/10.1111/ijmr.12317>
- 18 Krause, R., Semadeni, M., & Cannella, A. A. (2013). External COO/presidents as expert
19 directors: A new look at the service role of boards. *Strategic Management Journal*, 34(13),
20 1628-1641.
- 21
22 Krause, R., Semadeni, M., & Withers, M. C. (2016). That special someone: When the board
23 views its chair as a resource. *Strategic Management Journal*, 37(9), 1990-2002.
- 24 Kroll, M., Walters, B. A., & Wright, P. (2008). Board vigilance, director experience, and
25 corporate outcomes. *Strategic Management Journal*, 29(4), 363-382.
- 26 Kuusela, P., Keil, T., & Maula, M. (2017). Driven by aspirations, but in what direction?
27 Performance shortfalls, slack resources, and resource-consuming vs. resource-freeing
28 organizational change. *Strategic Management Journal*, 38(5), 1101-1120.
- 29 Lockett, A., & Wright, M. (2001). The syndication of venture capital investments. *Omega*, 29(5),
30 375-390.
- 31
32 Lockett, A., Wilund, J., Davidsson, P., & Girma, S. (2011). Organic and acquisitive growth: re-
33 examining, testing and extending Penrose's growth theory. *Journal of Management Studies*,
34 48(1), 48-74.
- 35 Loos, N. (2007). *Value creation in leveraged buyouts: Analysis of factors driving private equity*
36 *investment performance*. DUV: Germany.
- 37 Manigart, S., Lockett, A., Meuleman, M., Wright, M., Landstrom, H., Bruining, H., ... Hommel,
38 U. (2006). Venture Capitalists' Decision to Syndicate. *Entrepreneurship Theory and Practice*,
39 30(2), 131-153.
- 40
41 Manigart, S., & Wright, M. (2013). Reassessing the relationships between private equity
42 investors and their portfolio companies. *Small Business Economics*, 40(3), 479-492.
- 43 March, J. G., & Simon, H. A. (1958). *Organizations*. New York, NY: John Wiley & Sons.
- 44 Martin, G., Gözübüyük, R., & Becerra, M. (2015). Interlocks and firm performance: The role of
45 uncertainty in the directorate interlock-performance relationship. *Strategic Management*
46 *Journal*, 36(2), 235-253.
- 47
48 McDonald, M. L., Westphal, J. D., & Graebner, M. E. (2008). What do they know? The effects
49 of outside director acquisition experience on firm acquisition performance. *Strategic*
50 *Management Journal*, 29(11), 1155-1177.
- 51
52 Meuleman, M., Amess, K., Wright, M., & Scholes, L. (2009a). Agency, strategic
53 entrepreneurship, and the performance of private equity-backed buyouts. *Entrepreneurship:*
54 *Theory and Practice*, 33(1), 213-239.
- 55
56
57
58
59
60

- 1
2
3 Meuleman, M., Wright, M., Manigart, S., & Lockett, A. (2009b). Private equity syndication:
4 Agency costs, reputation and collaboration. *Journal of Business Finance and Accounting*,
5 36(5–6), 616–644.
- 6
7 Meuleman, M., Wilson, N., Wright, M., & Neckebrouck, J. (2020). When the going gets tough:
8 Private equity firms' role as agents and the resolution of financial distress in buyouts. *Journal*
9 *of Small Business Management*, 1–28.
- 10
11 Meyer, K., Van Witteloostuijn, A., Beugelsdijk, S. (2017). What's in a p? Reassessing best
12 practices for conducting and reporting hypothesis-testing research. *Journal of International*
13 *Business Studies*, 48, 535-551.
- 14
15 Moatti, V., Ren, C., Anand, J., Dussauge, P. 2015. Disentangling the performance effects of
16 efficiency and bargaining power in horizontal growth strategies: An empirical investigation in
17 the global retail industry. *Strategic Management Journal*, 36, 745-757.
- 18
19 Nikoskelainen, E., & Wright, M. (2007). The impact of corporate governance mechanisms on
20 value increase in leveraged buyouts. *Journal of Corporate Finance*, 13(4), 511–537.
- 21
22 Nohria, N., & Gulati, R. (1996). Is slack good or bad for innovation? *Academy of Management*
23 *Journal*, 39(5), 1245-1264.
- 24
25 Norton, E., Wang, H., Ai, C. (2004). Computing interaction effects and standard errors in logit
26 and probit models. *The Stata Journal*, 4(2), 154-167.
- 27
28 O'Brien, J. & David, P. (2014). Reciprocity and R&D search: applying the behavioral theory of
29 the firm to a communitarian context. *Strategic Management Journal*, 35(4), 550-565.
- 30
31 Paglia, J. K., & Harjoto, M. A. (2014). The effects of private equity and venture capital on sales
32 and employment growth in small and medium-sized businesses. *Journal of Banking & Finance*,
33 47, 177-197.
- 34
35 Penrose, E. (1959). *The theory of the growth of the firm*. Oxford University Press, Oxford.
- 36
37 Petty, J. S., & Gruber, M. (2011). "In pursuit of the real deal". A longitudinal study of VC
38 decision making. *Journal of Business Venturing*, 26(2), 172–188.
- 39
40 Pfeffer, J., & Salancik, G. R. (1974). Organizational decision making as a political process: The
41 case of a university budget. *Administrative Science Quarterly*, 19(2), 135–151.
- 42
43 Posen, H. E., Keil, T., Kim, S., & Meissner, F. D. (2018). Renewing research on problemistic
44 search — A review and research agenda. *Academy of Management Annals*, 12(1), 208–251.
- 45
46 Private Equity Info. (2019). Number of portfolio companies per PE firm. Retrieved from
47 <https://blog.privateequityinfo.com/index.php/2019/08/26/number-of-portfolio-companies-per-pe-firm/>
- 48
49 Puranam, P., Singh, H., & Chaudhuri, S. (2009). Integrating Acquired Capabilities: When
50 Structural Integration Is (Un)necessary. *Organization Science*, 20(2), 313–328.
- 51
52 Quigley, T. J., Chirico, F., & Baù, M. (2022). Does the CEO effect on performance differ in
53 private versus public firms? *Strategic Organization*, 20(3), 652-673.
- 54
55 Ref, O., & Shapira, Z. (2017). Entering new markets: The effect of performance feedback near
56 aspiration and well below and above it. *Strategic Management Journal*, 38(7), 1416–1434.
- 57
58 Scellato, G., & Ughetto, E. (2013). Real effects of private equity investments: evidence from
59 European buyouts. *Journal of Business Research*, 66(12), 2642-2649.
- 60
61 Schulze, W. S., Lubatkin, M. H., & Dino, R. N. (2003). Exploring the Agency Consequences of
62 Ownership Dispersion Among The Directors of Private Family Firms. *Academy of*
63 *Management Journal*, 46(2), 179–194.
- 64
65 Sedikides, C. & Strube, M. (1997). Self-evaluation: to thine own self be good, to thine own self
66 be sure, to thine own self be true, and to thine own self be better. *Advances in Experimental*

- 1
2
3 *Social Psychology*, 29, 209-269.
- 4 Sinyard, D., Dionne, S., Loch, K. (2020). Fast thinking in private equity: The role of heuristics in
5 screening buyout opportunities. *Journal of Small Business Management*, 58(6), 1221-1255/
6 Staw, B., Sandelands, L., Dutton, J. (1981). Threat-rigidity effects in organizational behavior: a
7 multilevel analysis. *Administrative Science Quarterly*, 26(4), 501-524.
- 8 Stevenson, W. B., & Radin, R. F. (2009). Social Capital and Social Influence on the Board of
9 Directors. *Journal of Management Studies*, 46(1), 16–44.
- 10 Tarakci, M., Ates, N., Floyd, S., Ahn, Y., Wooldridge, B. (2018). Performance feedback and
11 middle managers' divergent strategic behavior: the roles of social comparisons and
12 organizational identification. *Strategic Management Journal*, 39(4), 1139-1162.
- 13 Tuschke, A., Sanders, W. G., & Hernandez, E. (2014). Whose experience matters in the
14 boardroom? The effects of experiential and vicarious learning on emerging market entry.
15 *Strategic Management Journal*, 35(3), 398–418.
- 16 Tykvová, T. (2018). Venture capital and private equity financing: an overview of recent
17 literature and an agenda for future research. *Journal of Business Economics*, 88(3-4), 325-362.
- 18 Vanacker, T., Collewaert, V., Paeleman, I. (2013). The relationship between slack resources and
19 the performance of entrepreneurial firms: the role of venture capital and angel investors.
20 *Journal of Management Studies*, 50(6), 1070-1096.
- 21 Vanacker, T., Collewaert, V., & Zahra, S. A. (2017). Slack resources, firm performance, and the
22 institutional context: Evidence from privately held European firms. *Strategic Management
23 Journal*, 38(6), 1305-1326.
- 24 Vanacker, T., Forbes, D. P., Knockaert, M., & Manigart, S. (2020). Signal strength, media
25 attention, and resource mobilization: Evidence from new private equity firms. *Academy of
26 Management Journal*, 63(4), 1082-1105.
- 27 Van Ees, H., Gabrielsson, J., Huse, M. (2009). Toward a behavioral theory of boards and
28 corporate governance. *Corporate Governance: An International Review*, 17(3), 307-319.
- 29 Wright, M. (2013). Private equity: Managerial and policy implications. *Academy of Management
30 Perspectives*, 27(1), 1–6.
- 31 Wright, M., Hoskisson, R., & Busenitz, L. (2001). Firm rebirth: buyouts as facilitators of
32 strategic growth and entrepreneurship. *Academy of Management Perspectives*, 15(1).
- 33 Wynant, L., Manigart, S., Collewaert, V. (2023). How private equity-backed buyout contracts
34 shape corporate governance. *Venture Capital*, 25(2), 135-160.
- 35 Zahra, S. A., & Pearce, J. A. (1989). Boards of Directors and Corporate Financial Performance:
36 A Review and Integrative Model. *Journal of Management*, 15(2), 291–334.
- 37 Zhang, C. & Greve, H. (2019). Dominant coalitions directing acquisitions: different decision
38 makers, different decisions. *Academy of Management Journal*, 62(1), 44-65.
- 39 Zona, F., Gomez-Mejia, L. R., & Withers, M. C. (2018). Board Interlocks and Firm
40 Performance: Toward a Combined Agency-Resource Dependence Perspective. *Journal of
41 Management*, 44(2), 589–618.
- 42
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TABLE 1 Descriptive statistics and correlations

	Mean	SD	Min.	Max.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) Acquisition likelihood	0.20	0.40	0.00	1.00																
(2) Capital investments	0.23	0.46	-0.37	1.50	0.01															
(3) Performance below aspirations	31.33	47.23	0.00	160.0	-0.16	0.11														
(4) Performance above aspirations	8.57	19.29	0.00	80.0	-0.04	-0.14	-0.30													
(5) Relative amount invested	0.03	0.02	0.01	0.12	0.25	-0.01	-0.30	0.01												
(6) Relative investment experience	0.03	0.02	0.01	0.08	0.11	-0.14	-0.02	-0.03	0.46											
(7) Initial acquisition strategy	0.57	0.50	0.00	1.00	0.25	-0.10	-0.18	-0.14	0.09	0.18										
(8) Years since entry	2.69	2.36	0.00	8.00	-0.15	0.10	0.18	0.20	-0.07	0.34	-0.12									
(9) PE ownership	51.91	22.28	20.7	98.1	-0.06	-0.11	0.02	0.09	0.06	0.27	0.07	0.21								
(10) PE chair	0.33	0.47	0.00	1.00	0.10	0.03	0.08	0.05	-0.13	0.00	0.04	-0.01	0.30							
(11) Syndicate	0.24	0.43	0.00	1.00	0.02	0.02	0.15	-0.09	0.05	-0.09	-0.01	0.02	0.26	-0.09						
(12) Management ownership	23.25	26.25	0.00	79.3	0.19	0.07	-0.05	-0.21	0.01	-0.14	0.26	-0.21	-0.65	-0.14	-0.12					
(13) Firm age ^L	2.98	0.69	1.79	4.86	0.01	-0.06	-0.20	-0.12	0.14	0.06	0.03	-0.02	-0.11	-0.15	0.11	0.11				
(14) Firm size ^L	10.6	1.28	7.56	14.6	0.20	-0.09	-0.36	-0.04	0.43	0.22	0.09	-0.10	-0.17	-0.20	0.16	0.11	0.29			
(15) Financial slack	0.14	0.14	0.00	0.56	-0.09	0.15	0.01	0.18	-0.13	-0.28	-0.07	0.05	-0.19	-0.12	-0.19	0.08	-0.33	-0.35		
(16) Potential slack	0.41	0.20	0.10	0.86	0.18	0.02	-0.06	-0.05	-0.00	-0.18	0.09	-0.21	0.03	0.32	-0.13	0.14	0.06	-0.11	0.06	
(17) Board interlocks	3.45	2.25	0.00	10.0	0.00	-0.12	0.12	-0.06	0.00	0.39	-0.16	0.19	-0.06	-0.02	-0.27	0.08	0.17	0.06	-0.12	-0.04

Notes: Correlations are based on n = 150 firm-year observations. Correlations greater than |0.16| are statistically significant at p < .05. Variables 1, 2, 3, 11, and 14 are binary, thus these correlations should be interpreted with care. ^L Indicates that a log-transformed variable is used. SD = standard deviation. Min. = Minimum value. Max. = Maximum value.

TABLE 2 GEE regressions for capital investments

	(1)	(2)	(3)	(4)	(5)	(6)
Initial acquisition strategy	-0.076 (0.323)	-0.084 (0.453)	-0.588* (0.309)	0.101 (0.318)	-0.045 (0.284)	-0.505* (0.263)
Years since entry	0.274*** (0.101)	0.285** (0.135)	0.261** (0.116)	0.211** (0.105)	0.208** (0.092)	0.197*** (0.072)
PE ownership	0.019* (0.010)	-0.005 (0.013)	0.001 (0.009)	0.017 (0.012)	-0.026* (0.013)	0.023** (0.010)
PE chair	-1.058*** (0.357)	-0.932*** (0.315)	-0.987*** (0.292)	-0.945*** (0.342)	-0.875*** (0.305)	-1.118*** (0.309)
Syndicate	-1.145*** (0.325)	-1.609*** (0.512)	-0.377 (0.288)	-0.941** (0.463)	-1.287*** (0.433)	-0.859** (0.375)
Management ownership	0.007 (0.010)	0.006 (0.010)	0.012 (0.008)	0.009 (0.008)	-0.003 (0.010)	0.025*** (0.009)
Firm age	-0.372 (0.257)	-0.104 (0.310)	-0.186 (0.237)	-0.415 (0.268)	-0.077 (0.317)	-0.134 (0.249)
Firm size	0.537** (0.232)	0.843*** (0.243)	0.508** (0.226)	0.633* (0.372)	0.599*** (0.176)	0.734*** (0.144)
Financial slack	-0.381 (1.491)	1.677 (1.549)	1.587 (1.567)	1.381 (1.994)	1.110 (1.067)	1.918 (1.315)
Potential slack	2.844 (2.938)	1.729 (1.055)	1.338* (0.740)	2.070*** (0.777)	1.794** (0.909)	0.603 (0.560)
Board interlocks	-0.124* (0.067)	-0.292*** (0.094)	-0.262*** (0.068)	-0.287*** (0.078)	-0.257*** (0.094)	-0.220** (0.088)
Relative amount invested	-12.011 (9.390)	-12.510 (13.420)	-7.953 (10.512)	0.877 (8.003)	-3.589 (9.568)	-9.188 (6.731)
Relative investment experience	-36.176** (16.783)	-39.224** (17.519)	-48.364** (19.706)	-60.415*** (22.232)	-46.714** (18.682)	-55.599*** (20.141)
Performance below aspiration	0.007** (0.003)	0.005 (0.004)	-0.003 (0.004)	0.005* (0.003)	0.011*** (0.003)	0.011** (0.005)
Performance above aspiration	-0.012 (0.010)	0.028** (0.012)	0.000 (0.011)	0.013 (0.011)	0.024** (0.011)	-0.003 (0.009)
Performance below aspiration x Relative amount invested		0.480* (0.262)				0.603** (0.258)
Performance below aspiration x Relative investment experience			0.500*** (0.164)			0.634*** (0.201)
Performance above aspiration x Relative amount invested				-0.538* (0.327)		-1.147* (0.669)
Performance above aspiration x Relative investment experience					1.326** (0.592)	1.971* (1.062)
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.743* (0.402)	1.403** (0.616)	0.834 (0.523)	0.798 (0.534)	1.554** (0.707)	0.634 (0.428)
Chi ²	33.75*	71.12***	84.00***	77.10***	74.02***	112.24***

Note. 150 firm-year observations from 51 firms. Robust standard errors clustered by firm are indicated in parentheses.

* p < .1 ** p < .05 *** p < .01.

TABLE 3 GEE regressions for the likelihood of acquisitions

	(1)	(2)	(3)	(4)	(5)	(6)
Initial acquisition strategy	0.681 (0.700)	0.570 (0.767)	0.553 (0.772)	0.762 (0.660)	0.686 (0.748)	0.776 (0.747)
Years since entry	-0.433*** (0.159)	-0.571*** (0.219)	-0.548*** (0.193)	-0.383** (0.160)	-0.426*** (0.160)	-0.515** (0.255)
PE ownership	0.034 (0.030)	0.030 (0.030)	0.032 (0.027)	0.046 (0.029)	0.031 (0.027)	0.037 (0.037)
PE chair	0.832 (0.805)	0.843 (0.924)	0.607 (0.874)	0.925 (0.825)	0.712 (0.834)	1.302 (0.924)
Syndicate	-0.395 (0.862)	0.107 (0.998)	-0.124 (0.993)	-0.695 (0.903)	-0.334 (0.923)	-0.092 (0.985)
Management ownership	0.025 (0.021)	0.027 (0.024)	0.023 (0.020)	0.028 (0.020)	0.022 (0.019)	0.030 (0.030)
Firm age	-0.256 (0.450)	-0.629 (0.496)	-0.319 (0.450)	-0.175 (0.462)	-0.264 (0.454)	-0.566 (0.518)
Firm size	1.048*** (0.393)	1.101** (0.559)	1.019** (0.512)	1.465*** (0.495)	1.045** (0.487)	1.318*** (0.467)
Financial slack	6.149** (2.784)	4.529 (2.766)	6.122** (2.724)	7.469** (3.491)	5.822** (2.933)	6.937** (3.163)
Potential slack	1.448 (1.691)	2.537 (1.877)	2.124 (1.749)	0.688 (1.650)	1.308 (1.719)	2.899 (2.199)
Board interlocks	0.010 (0.166)	0.057 (0.177)	0.040 (0.160)	-0.008 (0.155)	0.020 (0.154)	0.072 (0.192)
Relative amount invested	-5.326 (16.495)	9.224 (41.098)	35.359 (39.802)	-13.397 (31.952)	10.026 (38.471)	-33.141 (22.318)
Relative investment experience	5.067 (38.003)	5.273 (15.706)	-9.417 (16.336)	-11.302 (13.736)	-6.778 (17.000)	32.020 (37.747)
Performance below aspiration	-0.009 (0.008)	-0.069** (0.034)	-0.040 (0.025)	-0.011 (0.008)	-0.010 (0.008)	-0.059*** (0.020)
Performance above aspiration	-0.008 (0.012)	-0.018 (0.015)	-0.012 (0.013)	-0.055* (0.029)	-0.011 (0.014)	-0.027 (0.061)
Performance below aspiration x Relative amount invested		-2.788** (1.237)				-3.006** (1.193)
Performance below aspiration x Relative investment experience			-2.141* (1.120)			-1.032*** (0.322)
Performance above aspiration x Relative amount invested				1.792* (1.002)		4.953*** (1.640)
Performance above aspiration x Relative investment experience					0.542 (0.734)	-6.302** (2.525)
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-5.581** (2.281)	-6.242*** (2.136)	-6.355*** (1.771)	-7.082*** (2.197)	-6.393*** (1.788)	-7.375** (2.926)
Chi ²	56.96***	49.02***	62.08***	67.75***	68.79***	153.96***

Note. 150 firm-year observations from 51 firms. Robust standard errors clustered by firm are indicated in parentheses.

* p < .1 ** p < .05 *** p < .01.

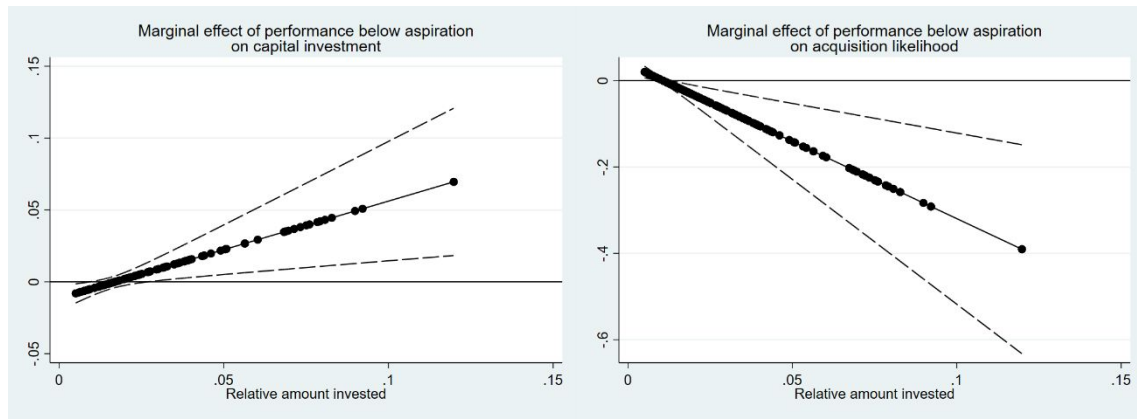


FIGURE 1 Effect of performance below aspiration on capital investment (left-hand panel) and acquisition likelihood (right-hand panel) at different levels of relative amount invested

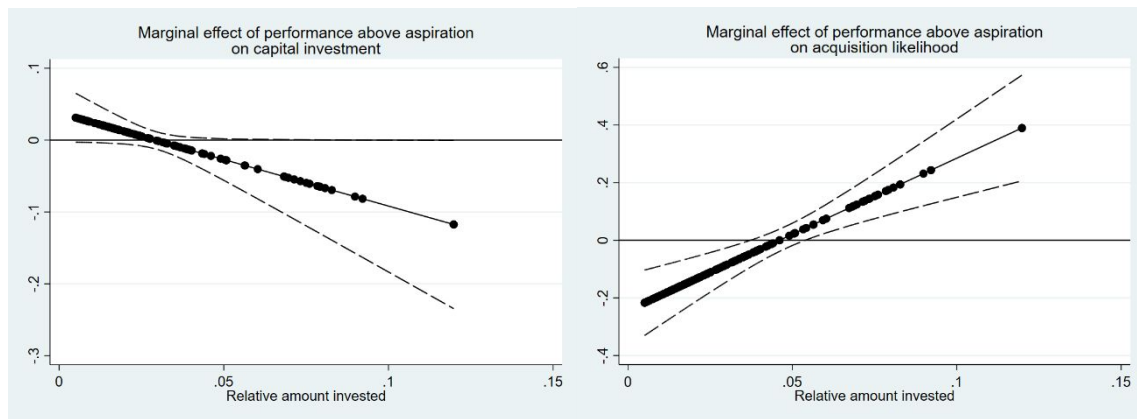


FIGURE 2 Effect of performance above aspiration on capital investment (left-hand panel) and acquisition likelihood (right-hand panel) at different levels of relative amount invested

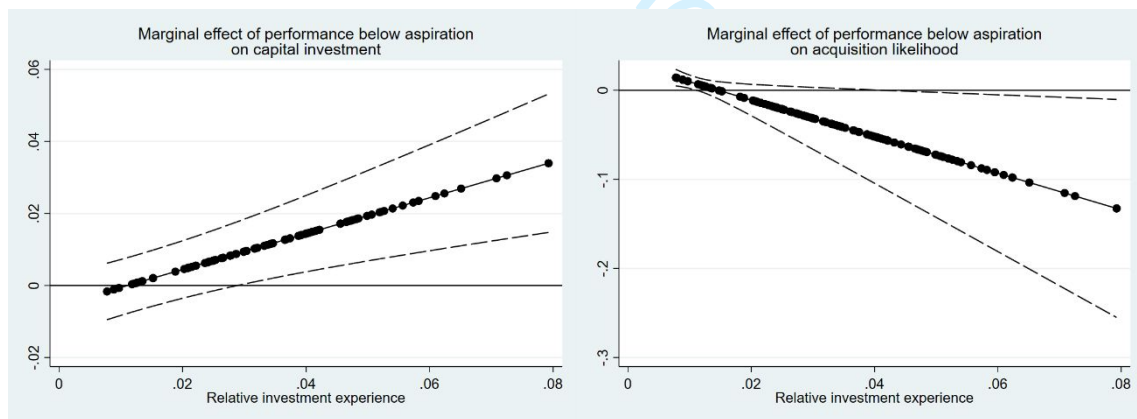


FIGURE 3 Effect of performance below aspiration on capital investment (left-hand panel) and acquisition likelihood (right-hand panel) at different levels of relative investment experience

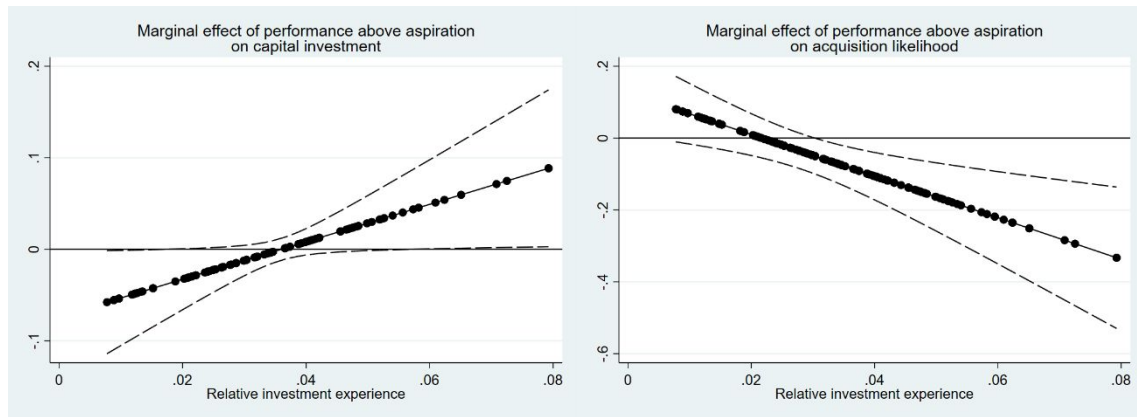


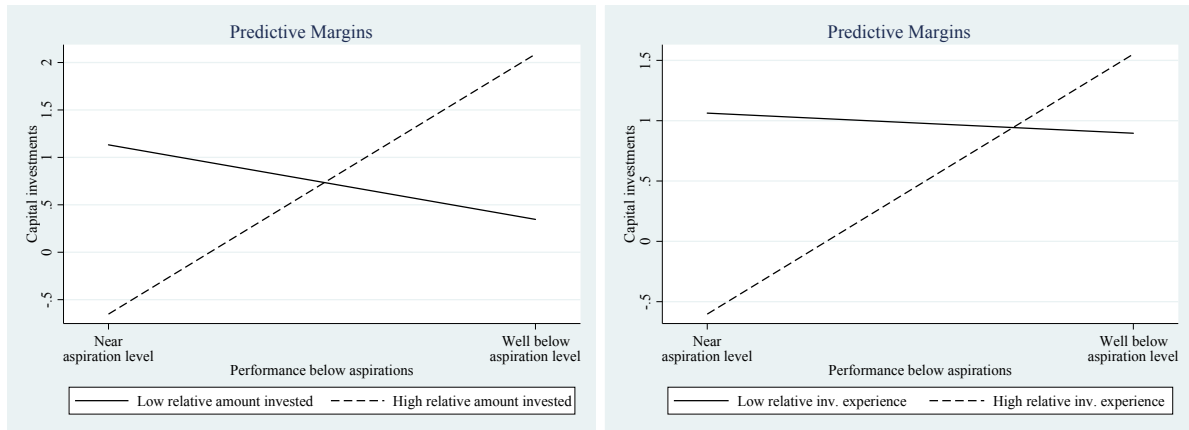
FIGURE 4 Effect of performance above aspiration on capital investment (left-hand panel) and acquisition likelihood (right-hand panel) at different levels of relative investment experience

Note: These graphs show the effects of performance above/below aspiration on capital investment (left-hand panel) and acquisition likelihood (right-hand panel) for the full range of values of relative investment amount (Figures 1 and 2) and relative investment experience (Figures 3 and 4). The dotted lines represent the point estimates, whereas the dashed lines report the 95 percent confidence range for the interaction effect. The graphs were derived using the methodology described in Meyer et al. (2017).

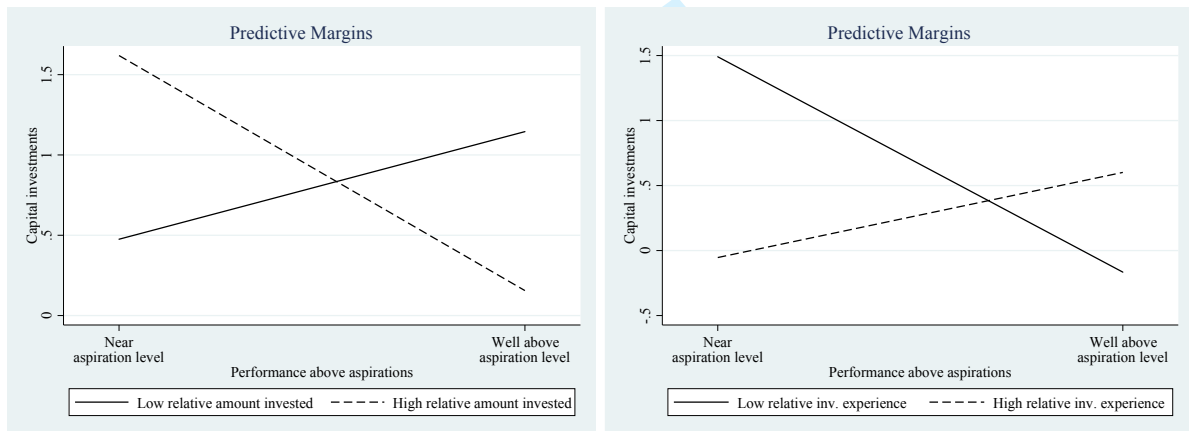
Online Appendix: Standard interaction effect plots

These figures plot the marginal effects of the independent variables at two values for the moderating variables: the mean value minus one standard deviation (“low”), and the mean value plus one standard deviation (“high”). The independent variables are performance above aspiration and performance below aspiration. The moderating variables are relative amount invested and relative investment experience. In these plots, performance near the aspiration level equals the mean value of either performance above/below aspiration minus one standard deviation. Performance well below/above the aspiration level equals the mean value plus one standard deviation.

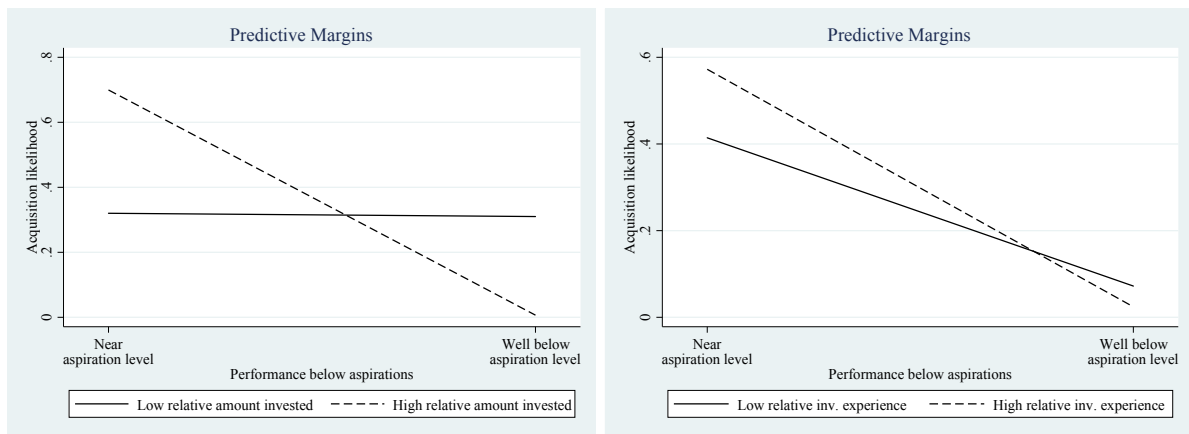
Interaction effect plots for capital investment - Performance below aspirations



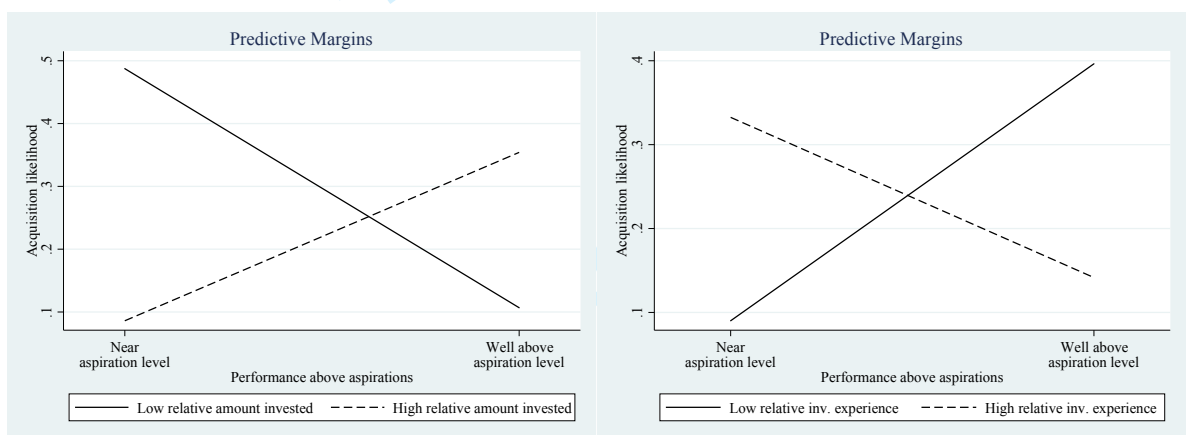
Interaction effect plots for capital investment - Performance above aspirations



Interaction effect plots for acquisition likelihood - Performance below aspirations



Interaction effect plots for acquisition likelihood - Performance above aspirations



REPLY TO COMMENTS OF THE EDITOR

Dear Authors,

Thank you for submitting your manuscript SEJ-22-4388.R2 entitled "Same owner, different impact: How responses to performance feedback differ across a private equity investor's portfolio firms" to Strategic Entrepreneurship Journal. The referee appreciate your significant effort and progress, but also suggest some revisions to your manuscript. Given my familiar with this topic, I decided to conditionally accept your manuscript. The condition is that you take all the remaining concerns fully to heart. My intention is to review the paper personally at the next round. If necessary, however, I will return to the reviewer. My hope is that won't be necessary, though. Thank you for your contribution to the SEJ. I'm looking forward to receiving your response soon.

Congratulations! Once again, I thank the two reviewers for their extremely high-quality input in fostering a productive dialogue at SEJ.

Our response: Thank you for conditionally accepting our paper. We have carefully reviewed the remaining concerns of Reviewer 2 and have taken them to heart. To be as specific as possible, we have replied to each of Reviewer 2's comments in detail below. We hope you agree that we have been responsive to the remaining feedback.

Here are two requests for your paper, now that it is moving to acceptance: (1) adding a two-part abstract and (2) considering preparing a video abstract.

1. Two-part abstract: The journal requires a two-part abstract for accepted papers. The full two-paragraph abstract will be posted online, where it will be available to all viewers, and also will be printed as part of the published article in the journal. With your final manuscript, please include an abstract that has two paragraphs in the following format.

Abstract

Research summary: This paragraph is the same as the traditional type of abstract, describing the scholarly purpose and results of the paper (maximum 125 words).

Managerial summary: This paragraph describes the purpose and results of the paper in non-technical language; you have the option of including implications for practice in the paragraph if you believe they are relevant, but we do not require implications—just a clear statement of purpose and results (maximum 125 words).

Our response: We have now added the two-part abstract to our paper (p. 1). In particular, the new managerial summary reads as follows (the research summary is the same as the old abstract):

Managerial summary: A PE investor may differently guide its portfolio firms. Incentives to intervene should be larger in case of larger investments, and influence should be more extensive in case of more senior PE board representatives. In this study, we examine how a PE investor's varying incentives and influence affect how PE-backed firms strategically react to under- and overperformance. We find that a PE investor pushes for capital investments but deters acquisitions as performance shortfalls increase in a portfolio firm, when they have made larger investments and appointed more senior board members. In case of overperformance, a PE investor pushes towards acquisitions (and against capital investments) when they have invested more. Surprisingly, the opposite holds in case of more senior board members.

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4 2. Video abstract: The journal is now inviting authors of accepted papers to prepare brief "video
5 abstracts," which help build readership and discussion of the work. The video abstracts are linked to the
6 paper on Wiley Online Library (WOL), as well as promoted via SMS social media channels, and are
7 hosted on the SMS YouTube channel. If you are interested in preparing a video abstract for your paper,
8 please contact SEJ Editorial Office at sej@strategicmanagement.net.
9

10 **Our response:** We are definitely interested in making a video abstract, but thought it was maybe
11 best to wait to contact the Editorial Office until receiving the final editorial decision.
12

13
14 Thank you for submitting this important research to Strategic Entrepreneurship Journal. I look forward to
15 receiving your revision.
16

17 **Our response:** Thank you for your guidance in this revision process. We firmly believe our paper
18 has substantially improved compared to its first submission. And, we are extremely grateful for all the
19 constructive feedback we have received.
20

21 Sincerely,
22

23 Dr. Brian Wu
24 Strategic Entrepreneurship Journal
25 wux@umich.edu
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REPLY TO COMMENTS OF REVIEWER #2

Thank you for giving me the opportunity to review the revised manuscript, SEJ-22-4388 “Same owner, different impact: How responses to performance feedback differ across private equity investor’s portfolio firms?” for a second time. I think you’ve made progress.

While most of the expected direct effects do not receive support, I think the fact that relative investment size moderates the effects is interesting and sheds light on an important mechanism (what is at stake to the PE firm and the incentives to govern matter when it comes to performance aspiration gaps). As I noted from the start, the context (now much better motivated) and capturing aspirations directly through the meetings is really unique. That said, I still have a few issues and will focus here on prior comments.

Our response: Thank you for your comments. We are happy you agree the paper has substantially improved. Below, we have replied to each of your comments in detail.

Theory

1. Theoretical framework : Ability to Govern In my prior comments, I was concerned about what new information we gain about the BtF from your study. Do we have a coherent theoretical framework? I continue to struggle with the relative investor experience, which you note is an ability to govern (e.g. . page 3 or section 2.4). The issue is exacerbated as some of the predicted relationships of “ability to govern” (H3c,d) do not receive empirical support but show the opposite to what you expected. Hence, I am still uncertain as to whether the framework and underlying mechanism are appropriate.

1.1 First, it is unclear if ability to govern is about PE competence (i.e., do they have the right skills?) or an ability to influence and exert control over management (as per your arguments on page 18). For me, the ability to exert control is the more logical angle, also complementing your first moderator. However, if the mechanism is about ability to exert control, I think the measure of relative board experience does not fit. Your measure is closer to relative board competencies in the PE firm but not necessarily if the agenda of PE firms and what they deem necessary following performance aspiration gaps is pursued by the focal firm.

Our response: Having read your elaboration on your issue with our positioning of the investment experience variable, alongside the related comments below, we now understand how our framing of ‘ability to govern’ may have created some confusion. To be clear, our intention was to argue how experience may be perceived as competency or expertise (in relevant domains) and hence will offer influence towards board members. This is consistent with an influential literature on boards which has argued that board members glean influence from their experience and, not unimportant in our context, that this influence is not a given (Forbes & Milliken, 1999; Johnson et al., 1996; Kroll et al., 2008; Stevenson & Radin, 2009). Within the performance feedback literature, a similar position has been taken: Zhang and Greve (2016) use the proportion of board members with a certain set of experience as a proxy for coalition strength and hence the influence this coalition has on the final strategic choice being made. Our measure is hence in line with Zhang and Greve (2016), and with the board literature in general.

That being said, we see how our choice of wording, i.e. ability, may have put too much emphasis on the competence aspect of experience rather than on influence, which is our focal theoretical mechanism. To address this, we have now carefully examined the wording throughout the entire paper and tried to reframe as much as possible towards an influence-based positioning (rather than ability). Moreover, we have now also added a short discussion of this aspect in our limitations. In particular, we added the following on page 36:

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3 “Theoretically, and in line with a broad empirical literature (e.g., Finkelstein, 1992), we had
4 expected experience to be a proxy for the influence board members have on the strategic decision-
5 making process, i.e. with more experienced board members being able to weigh more heavily on
6 the discussion and increasing their likelihood of being listened to, as they are assumed to be the
7 experts. We do, however, acknowledge that influence may result from other sources too which we
8 do not capture in the current study. Moreover, our alternative explanation suggests experience itself
9 may also map onto different concepts beyond influence, such as reputational concerns. We invite
10 further research to disentangle these concepts so we can more comprehensively understand through
11 which mechanisms individuals affect firm-level BTOF relationships.”
12

13
14 1.2. Second, in my prior comments, I noted the critical role of the board, and you note on page 18 that PE
15 firms are always represented on the board. However, while you pushed back on using the chair of the
16 board as indicator and dismissed the idea that board chairs matter in your context (page 17 of the
17 response), I see a great many variances in the PE Chair measure. Even though, on average, the PE firm
18 holds the majority, they only have the PE chair in 33% of the cases. For me, the board composition and
19 having the chair that can cast the tying vote more clearly represent an ability to govern than examining the
20 relative experiences of board members. I am not saying to use this moderator but, for me, it would more
21 clearly connect to the theory. Alternatively, you could consider what your measure in terms of relative
22 board experience really represents. Perhaps it’s about relative higher competences of these board
23 members?
24

25 **Our response:** You are correct in that in our sample there is indeed some variation in the PE
26 investor taking on the board chair position. However, this variation is in line with our previously
27 mentioned explanation, namely that a PE investor generally does not have a strong position about holding
28 the board chair position. They see the board chair position as an administrative, pro forma function (i.e.
29 “the person who guides the meeting” as one PE investor we interviewed stated it). So, in some portfolio
30 firms the PE investor will take on the Chair position, while in others they will not, but this is without any
31 material strategic consequence – something which is also further corroborated by the lack of any
32 statistically significant results when examining the Chair variable (as we detailed in the previous reply
33 letter).
34

35
36 Related to the tying vote aspect, research in a PE context suggests that in a majority of cases (i.e. 60%)
37 the chairperson does not have the decisive vote in case of a tie vote (Wynant et al., 2023). Moreover, we
38 note that formal voting is generally very rare in boardrooms (Finkelstein, 1992). Statistics on the matter
39 are hard to come by, yet assuming formal voting is only needed in case of some dissent, a recent study on
40 dissent in boards mentions the following (Ma and Khanna, 2016, pg. 1550):
41

42 “Scarcity of dissent is a phenomenon that has been documented in the United States (e.g., Whisler [1984]
43 and Mace [1986] in interview-based studies) and in Israel (e.g., Schwartz-Ziv and Weisbach, 2013 in
44 analyses of board meeting minutes). Practically, one may expect that in equilibrium dissent rarely
45 occurs...”
46

47 They go on to document that in their sample (of public firms) dissent indeed only occurs in 0.5% of cases.
48 Of those, instances where there is a tie should hence be even rarer. Combined, we remain comfortable in
49 our initial assertion that the board chair position is not theoretically nor practically meaningful to study in
50 our context.
51

52 Finally, we elaborate hereafter, in our response to 1.3., that PE firms additionally control the portfolio
53 company through veto rights on a wide range of decisions. Hence, even when PE firms do not have the
54 chair position, they can govern through other mechanisms like veto rights. We agree that the latter is quite
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specific to our PE context, and hence we have elaborated on that in the paper to further clarify this point to the reader (see also p. 3 and 10).

1.3 Third, in my prior comments, I noted that PE ownership should be considered as I see it correlated with voting shares and hence could be another angle from which to more clearly capture the ability to govern through control. I do appreciate your clarifying (also now in the paper) that, in most of the PE cases, PE investors (contrary to VC investors) take a majority stake in their portfolio firms (page 12 of the response) and that, in your sample, the PE investor holds a majority stake in 108 out of 150 firm-year observations. At the same time this variable has a lot of variance as well. The mean is 51.91% with substantial variance and firms own as little as 20.7%. So, again, I posit if this would not serve as a better indicator of control and ability to govern (if this is the mechanism you want to explicate)?

Our response: You are correct in the observation that the PE ownership variable has variance. Your comment led us to realize we needed to provide more context around this, both here and in the paper (e.g., p. 3 and p. 10).

In particular, while indeed majority stakes are common among PE investors, it is important to note that as of a 25% ownership stake they already have a blocking minority. Such an “important blocking minority” allows “investors to control a firm’s strategic agenda and to influence its strategic choices (Zahra, 1995)” (Vanacker et al., 2013, p. 1081). As of this threshold, shareholders can block key strategic decisions, including acquisitions and substantial investments, which both are core in our theorizing. In our sample, 90% of our observations reflect a minimum 25% PE ownership stake, limiting the usefulness of ownership stake as a proxy for a PE investor’s ability to control.

Moreover, in addition to their ownership stake as a source of formal power, most PE investors negotiate veto rights also providing them with the formal power to block certain decisions. In our sample, 92% of our observations reflected deals with veto rights for the PE investor. Based on the qualitative data we have on the nature of these veto rights, we can provide some examples of the topics PE investors have veto rights on: acquisitions, investments and divestments, issue of shares, mergers, approval of the annual business plan and budget, new business activities, capital increases, any supplier contract as of a certain value (e.g., 250 000EUR), loans, hiring or dismissal of any staff with a certain annual employee cost (e.g., 75 000EUR) or in key positions (e.g., CEO/CFO) and remuneration of the management team.

The combination of both ownership stake and formal veto rights imply that a PE investor has the formal power to intervene in key strategic decisions, such as those related to acquisitions and capital investments. Again, this hence implies the more theoretically and practically relevant construct to focus on is in their informal power or influence. As we do feel you are touching upon an important point, we have elaborated on this in the paper. Specifically, we added the following footnote on page 3:

“We do not theorize on the formal power of a PE investor to influence management. Also, while ownership stakes, for instance, would in other contexts be a valid proxy for a shareholder’s power, PE investors usually take a majority equity stake. Moreover, as of a 25% stake they have a blocking minority, allowing them to influence a firm’s strategic agenda and its strategic choices (Vanacker et al., 2013). This is the case in 90% of our sample. Further, PE investors also negotiate veto rights (present in 92% of our sample) on matters related to acquisitions and capital investments (other examples include issue of shares, mergers, approval of the annual budget, new business activities, and hiring, firing and remuneration decisions of key staff). Combined, a PE investor will have significant formal power. This situation makes our focus on informal power through expertise (Finkelstein, 1992) particularly interesting. As we argue below, there can be significant variance in

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3 the informal power of a PE investor not only to influence management to *not* take strategic actions
4 but also to *push* for actions.”
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6 All these points lead to the aforementioned doubts about if theory and empirics produce a coherent story
7 that helps us understand what is going on and if, as you claim in the framework, this is really about
8 control over management. It seems that this is only weakly supported for below aspirations and behaves
9 in the opposite direction than proposed for above aspirations. Given the lack of support of the direct
10 effects, this makes it more challenging for the reader to see the utility of your overall proposed
11 framework.
12

13
14 **Our response:** We hope our replies above have clarified that our focus is on the influence a PE
15 investor has rather than on their formal power. We thank you for pushing on this comment so we could
16 further clarify this in the paper.
17

18 2. Capital expenditures and acquisitions –Distinct or Jointly.

19 In my prior comments, I asked why, with performance below aspirations, firms would actively shy away
20 from acquisitions (i.e., the negative effects) and, when above aspirations, why firms would reduce internal
21 investments. You note in the paper and in the response an important reason could be that that a dollar can
22 only be spent once (page 13 in the paper and page 15 in the response) and that when funds are allocated to
23 acquisitions, they become unavailable for other purposes, such as internal capital. You also note limits of
24 attention. Given the lack of support for the direct effects, I wonder if, from the start, you should consider
25 those modes (internal-external) as compensatory trade-offs, as you note in your arguments. For me, it
26 might make sense to think about why firms below aspirations may relatively prefer internal over
27 acquisitions, while above aspiration, it may be the opposite. I understand this would be a major change –
28 but, as I noted previously, for me, developing the paper without having initial evidence that prior
29 theorized relationships hold (also the ones found in prior research) reduces the utility of the overall
30 framework.
31

32
33 **Our response:** Thank you for this insightful comment. We have re-evaluated and carefully
34 revised the introduction of the paper (p. 2) and the build-up towards the hypotheses (e.g., p. 8-9). For
35 example, consistent with your recommendation here, we now -from the start- highlight the trade-off
36 between capital investments and acquisitions. On page 8-9, for example, we state: “We expect, however,
37 that a PE investor is unlikely to advocate for *both* acquisitions and additional capital investments together,
38 as financial and non-financial resources are inherently limited. A dollar can only be spent once: the
39 allocation of funds towards internal growth diminishes the availability of financial resources for
40 acquisitions and vice versa. Additionally, managerial resources are limited and as such, managers have
41 limited attention and are typically focused on developing a single strategic response at any given time
42 (Bromiley, 2005).”
43

44 More broadly, we now provide a more robust and nuanced discussion of how PE investors may
45 have varying preferences for internal versus external growth strategies depending on the performance
46 context considered. Throughout our theorizing, we now consistently focus on whether internal or external
47 growth might be the most important answer to deviations from performance aspirations.
48

49 3. Motivating the theoretical gap

50 I think you have improved the setup and motivation. Examining the BTF in the context of PE portfolios is
51 interesting. It allows us to capture aspirations in a unique way and showcases some of the portfolio
52 dynamics in terms of “attention/importance” to the PE firm. I think you explicate some of the important
53 nuances of the setting well and juxtapose it with what we know from the BTF. At the same time, I
54 struggled with the introduction because there are simply too many moving parts. I think the arguments
55 need to be streamlined. For example, in several instances on page two (first paragraph), I noted issues of
56 clarity as it felt like a rather complicated setup. I think you should set the paper up through the context
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(PEs lead to a change in aspirations), and then clearly explicate the two investment paths (the DV) – maybe less is more here to just let us know the setup on why this is interesting. You then can build your arguments more succinctly, noting that PE incentives will also matter. However, this must be explained as the last sentence of the first paragraph on page 2 not only is long but lacked clarity.

Our response: We addressed your comment by carefully revisiting the introduction (also in line with the previous comment) and streamlining it. In the first paragraph, we introduce the context and how PEs set new aspirations. In line with your suggestions, we substantially revised the second paragraph of the introduction to simplify its message and to focus it more squarely on the prioritization of the two different growth strategies. This revised second paragraph (p. 2) now reads as follows:

“PE investors aim to foster strategic entrepreneurship and value creation via growth strategies (e.g., Meuleman et al., 2009a; Wright et al., 2001). One strategy focuses on internal growth (Scellato & Ughetto, 2013; Sinyard et al., 2020). Another strategy focuses on external acquisitions, “where the portfolio firm serves as a platform for subsequent add-on acquisitions ... or “buy and build” strategies” (Hammer et al., 2017: 32). While both options have been recognized as viable growth strategies (Bernstein et al., 2019), we lack an understanding of when a PE investor will prioritize each growth strategy. Indeed, each strategy requires a substantial financial and non-financial resource allocation thereby constraining firms’ ability to implement both at the same time. Moreover, PE investors likely have a set of beliefs in terms of which strategy is more appropriately deployed when, i.e. in what portfolio firm performance context.”

Empirics

4. Empirical Analysis:

4.1. I appreciate your showing various robustness tests. Personally, I suggest you use the Models of A1.1 and A1.2 as the main models in the paper, plus a full model including all interaction. I find the way you add two moderators at the same time in models 2 and 3 in Tables 2 and 3 in the main paper to be arbitrary. The appendices are more straightforward, and it should be those being interpreted as well. I would appreciate it if you could also add the more traditional charts of moderating effect, plotting the direct effect on low vs. high values of the moderator based on the appendix results.

Our response: Following your recommendation here, we have integrated the models of A1.1 and A1.2 from our previous reply with the old tables so that we now report the control model, each of the models with the individual interaction terms, and then the full interaction model. We also clarify that we focus our discussion on the full model results but point out when there is a deviation between the individual effect results versus the full model (which as reported previously is only the case for the above aspirations x relative investment experience interaction in the acquisitions model). We have also included the simpler interaction plots as an online appendix.

4.2 Regarding Table A1.1 I am concerned as performance above aspirations shows a strong positive effect when adding the moderator performance below aspirations and relative amount invested (Model 1, page 20 of the response). How do you explain the change in the variable from negative (Model 1 in Table 3 on page 48 in main paper) to highly positive? It is also strange that when adding performance above aspirations and relative investment experience, both performance above aspirations and the moderator are positive and highly significant. Are your results highly sensitive to correlations when adding the moderating effects? This should be investigated, explained, and controlled for.

Our response: Next to the variance inflation factors, we now explicitly mention the multicollinearity diagnostic test we ran on page 27. Specifically, we write:

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3 “Variance inflation factors (VIFs) had an average value of 2.18 (2.13) in models for capital
4 investment (acquisition likelihood) and a maximum value of 4.29 (for the firm size variable).
5 Further, we conducted a multicollinearity diagnostic test using the coldiag procedure of Belsley et
6 al. (1980). This test showed that the condition number of our complete model is 7.53, well below
7 the threshold of 30. Combined, this reduces the concern of multicollinearity affecting our results.”
8

9 Hence, these tests show that multicollinearity should not be a concern when assessing our results.
10 Comparing the individual interactions with the full model also provides further support for this.
11

12 We did not further discuss the comparison between the coefficient estimates of performance above
13 aspirations in the capital investment model as the first one you refer to (the negative one) is not
14 statistically significant which hence implies it is not significantly different from zero.
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17 I hope these comments can help further improve the paper.
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20 **Our response:** Thank you for your advice and feedback. We hope to have addressed your
21 remaining concerns, which have again helped us strengthen our paper.
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