

Acquirer Types, Spillovers and Corporate Policies

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Abstract

Exploiting variation in the type of acquirer, we examine acquisition spillovers on peers' corporate policies. We observe that the reaction of a firm to the acquisition of one or more of its closest rivals depends on whether the rival is bought by private equity rather than strategic acquirers. Firms reposition themselves after a rival has been bought by a strategic acquirer, increasing acquisition spending. Firms increase their leverage and their payout, but they decrease capex after a private equity acquisition in their industry. These adjustments are consistent with a defensive strategy, aimed at avoiding becoming targets of private equity buyers and signalling a softening in the product market competition. We also document that the acquirer type interacts with firm characteristics to determine the response. Peers' market share influences the changes in corporate policies, with firms decreasing acquisition spending and increasing payout when the market share of private equity acquired peers is higher. These results suggest a decrease in the product market competition after a private equity acquisition. Finally, examining leverage and the cash of both acquired peers and the sample firms, we find little support for the predation theory.

Keywords: acquisition; private equity; competition; takeover.

JEL Classification: G30; G34.

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1 Introduction

A vast and growing literature has documented evidence of peer effects for almost every event in a company's life.¹ Among these events, takeovers have received particular attention. Takeovers can alter the competitive environment in which firms operate, disseminating new information about the merging firms as well as their industries (Song and Walkling, 2000; Derrien et al., 2023). In response to a rival firm being acquired, the literature has documented a variety of responses: defensive strategies to avoid being taken over (Servaes and Tamayo, 2014; Gorton, Kahl, and Rosen, 2009); strategies to improve the firm's positioning in the new competitive landscape (Gorton, Kahl, and Rosen, 2009); strategies either to accommodate a softening of competition (Chevalier, 1995; Kovenock and Phillips, 1997) or to deploy their assets more efficiently (Servaes and Tamayo, 2014).

The literature, however, has so far paid relatively little attention to the sources of variation in these reactions.² In fact, far from being a one-size-fits-all type of phenomenon, peer effects can vary with the characteristics of the event under investigation as well as those of the firms involved. In this paper, we focus on the acquirer type as main source of variation in peer effects. The increasing role played by private equity (PE) in the takeover market offers an ideal starting point to examine these variations.³ Indeed, strategic acquirers and private equity funds are fundamentally different. While the former are motivated by operating synergy creation and complementarities between the merging firms, acquisitions carried out by private equity funds usually generate neither cost nor revenue synergies.⁴ Targets of private equity's acquisitions are characterized by high post-transaction levels of debt, while on average acquisitions ease financial frictions in target firms (Erel, Jang, and Weisbach, 2015). Finally, the investment horizon for the

¹Other aspects investigated in the literature include: investments and product positioning decisions (e.g., Roychowdhury, Shroff, and Verdi, 2019; Bernard, Blackburne, and Thornock, 2020; Bustamante and Frésard, 2021), IPOs (Spiegel and Tookes, 2020), financial structure decisions (e.g., MacKay and Phillips, 2005; Leary and Roberts, 2014), payout policy choices (Grennan, 2019), stock splits (Kaustia and Rantala, 2015), corporate governance practices (Bouwman, 2011) and shareholder activism (Gantchev, Gredil, and Jotikasthira, 2019; Aslan and Kumar, 2016). The market valuation of rival firms also influences the firm's own valuation and policies (e.g., Foucault and Fresard, 2014; Albuquerque et al., 2018).

²Early papers that primarily focus on market share are among the few exceptions (e.g., Chevalier, 1995; Kovenock and Phillips, 1997).

³Private equity funds have raised more than half a trillion dollars worldwide annually from 2016 to 2019 and completed large acquisitions like the ones of ThomsonReuters (Blackstone, deal value of about \$13.5 billion), Envision Healthcare (KKR, with a deal value of almost \$10 billion) and BMC Software (KKR, deal value of about \$8.5 billion) by KKR. Private equity has been the most active buyer during COVID-19 pandemic too, having invested \$561.3 billion in 4,335 American companies (see <https://www.investmentcouncil.org/2020investment/>).

⁴They are associated with other sources of value creation, like financial, operating, and governance improvements (Slovin, Sushka, and Bendeck, 1991; Boucly, Sraer, and Thesmar, 2011; Harford, Stanfield, and Zhang, 2016).

acquirer is also notably shorter in private equity acquisitions, where the goal is to successfully exit the investment after a few years (e.g., Jensen, 1989; Kaplan and Stromberg, 2009; Eckbo and Thorburn, 2013; Stowell, 2017), than in strategic ones.

The different nature of the acquirer may affect peers' reactions through two channels, i.e. the expected behavior of the acquired firm and the change in the anticipation of future acquisitions in the industry. Regarding the expected behavior of the acquired firm after the acquisition, peer firms are more likely to face a larger and more powerful competitor as a result of a strategic acquisition than a private equity one. Thus, we expect greater adjustments to their corporate policies after a strategic acquisition to position themselves to challenge the new rival. This can lead to an increase in investments, and a reduction to payouts to investors. On the other hand, peer firms will compete with a highly-leveraged rival that needs to quickly generate cash flows after a private equity acquisition. This financially-constrained rival is unlikely to increase the competition intensity at industry level. Thus, peer firms could respond either by softening the product market competition (e.g., Maksimovic, 1988; Chevalier, 1995) or by driving the acquired rival out of the market and gain new market share with a predatory strategy (Bolton and Scharfstein, 1990). In the first case, higher debt levels and payout to shareholders, and less investments are expected in case of a softening of product market conditions. In the latter, firms should tend to increase investments in case of a predatory strategy. Concerning the second channel, private equity acquisitions should generate more reactions than strategic ones due to the change in the expectation of further acquisitions in the industry. Since the private equity acquirer's strategy, based on reducing unnecessary costs and increasing overall efficiency (e.g., Kaplan, 1989), can be easily replicated by other potential bidders in the industry. Due to their emphasis on disciplinary traits like cost reduction and operating improvements, private equity acquisitions may push firms in the industry to implement actions to reduce their attractiveness as targets adopting defensive strategies. Thus, we expect that firms will cut capital spending, increase leverage and payouts more after private equity acquisitions rather than strategic acquisitions.⁵

Motivated by these observations, we investigate whether reactions to acquisitions are contingent on the acquirer type using data on acquisitions of US publicly listed non-financial companies completed between 1997 and 2019. Although the shock represented by a rival's acquisition may

⁵These effects are similar to those induced by hostile takeovers (Servaes and Tamayo, 2014), even though private equity acquisitions are not typically hostile deals.

certainly generate some common responses, the substantial gap in the purposes and motivations between strategic and private equity acquisitions may affect the magnitude and the direction of the industry spillover effect. The shock takes place in about 3.6% of firm-year observations, suggesting that the acquisition of one of the closest rival represents an important departure from the *status quo* for the average firm. In one-ninth of these shocks, rivals are acquired by private equity investors. In the regression analysis, we show that takeovers of rivals make firms invest more thanks to an increased acquisition spending. This result is observed for both strategic acquirers and private equity ones. We also observe a decrease in cash holdings when rivals are acquired by strategic acquirers, likely used to finance new acquisition investments. Overall, this is consistent with a reshaping of the competitive environment due to the takeovers. The empirical evidence confirms the existence of heterogeneous spillover effects depending on the type of acquirer. Firms increase leverage and payouts to shareholders and reduce capex following private equity acquisitions. After a rival is acquired by private equity, firms adopt defensive strategies to reduce the probability of being acquired rather than implementing predatory strategies. This confirms the importance of the information channel in triggering spillover effects.

To better understand takeover spillover effects, we examine a second source of heterogeneity, i.e. firm characteristics. In fact, the effect induced by a specific acquirer type may change with the characteristics of the acquired firm as well as the firm itself. In fact, acquisitions of stronger and more financially flexible rivals can affect a firm's reaction differently than the acquisitions of weaker and more financially constrained ones. For example, rich and well-positioned firms are in a better position to exploit the weaknesses of financially constrained rival bought by private equity funds by implementing predatory strategies (Bolton and Scharfstein, 1990). Predatory strategies should also be more likely the more rivals are financially constrained.

We examine the role of rivals' and firms' position within industry, as proxied by their market share, interacted with the acquirer type variables (e.g., Kovenock and Phillips, 1997; Leary and Roberts, 2014). The base results found above are confirmed and enriched. When private equity funds buy high market-share rivals, firms carry out less acquisition investments and increase their share repurchases, which suggests a relaxation in competition. This may be due to the targets' high level of debt post-leveraged buyout (LBO), which reduce their ability to compete. By contrast, high market share firms whose rivals are taken over by strategic acquirers increase their acquisition spending to preserve their market leadership under threat.

Finally, the increase in leverage observed when rivals are targeted in private equity acquisition is particularly accentuated when firms have high market share, consistent with the a softening of the competition in the industry.

We also extend our investigation to the role played by firms' and rivals' financial position in terms of debt and cash. We find that the acquisition of highly leveraged rivals by a strategic acquirer triggers a more accentuated increase in total investments, especially R&D and acquisitions, suggesting that the firm is preparing for a more intense competition. Given the limited possibility for the private equity acquirers to further leverage up the balance sheet of high debt target firm, peer firms do not change their leverage policy. We also note a different behavior of highly leveraged firms when rivals are acquired. The investment decrease associated with a high debt level is attenuated when competitors are taken over by strategic acquirers and amplified when the acquirer is a private equity firm. This effect is mostly associated with acquisition investments. Regarding cash balance, we document that firms reduce acquisition investments and overall investments when a cash-poor rival is taken over by a private equity fund. Cash-poor firms on the other hand tend to make less capital expenditures after an acquisition of a rival by a strategic acquirer and increase debt after private equity funds buy competitors. Overall, these results suggest a relatively complex picture, where peer effects are either attenuated or reinforced by the financial conditions of the firm and the acquired rivals. We also show that cash is not just negative debt when it comes to peer effects. In fact, the adjustments elicited by cash and debt are different.

We perform several additional analyses to examine peer effects of takeovers on performance, risk and survival. In fact, the heterogeneity of peers and firms' characteristics has a relevant effect on firms' own corporate policies, which are adjusted accordingly. This can, in turn, influence their performance, risk, and the likelihood of going bankrupt or being acquired. Overall, we document a negligible effect on firms' performance associated with rivals' takeovers, suggesting the changes are needed to preserving the current level of profitability. However, rivals' LBOs reduce firms' stock volatility, with the effect being concentrated in firms with a small market share. Finally, we find some evidence that firms are more likely to be acquired within one year if a rival is acquired. This is consistent with Gorton, Kahl, and Rosen (2009), which argues that acquisitions foster other acquisitions. We do not observe any significant impact on the probability of going bankrupt. Finally, we distinguish acquisition between horizontal and

non-horizontal strategic acquisitions. The test unveils a negligible difference in firms' reactions to these deals. Finally, using the fluidity measure of Hoberg and Phillips (2016), we provide confirmation that leveraged buyouts reduce competition.

The paper contributes to the literature in several ways. First, we provide novel evidence that firms adjust their policies not only because of a rival firm's acquisition *per se*, but also because of the type of acquirer. We further examine the heterogeneity in the peer effects interacting the type of acquirer with firm's characteristics. Our results offer insights about the heterogeneous reaction to peers' acquisitions that complements recent evidence by Derrien et al. (2023). However, Derrien et al. (2023) examine another source of variation in the peer effect that depends on the ownership status of the target company that is bought by a rival (i.e., private vs public acquisition). Our source of variation is also in the ownership status, but in the one of the acquiring firm (strategic vs. private equity). This paper also adds to the findings of Fee and Thomas (2004) and Fathollahi, Harford, and Klasa (2021), which examine upstream and downstream product-market effects of horizontal mergers and acquisitions, finding different reactions for rivals, customers and suppliers.

Second, we contribute to the strand of literature that investigates spillover effects of acquisitions and leveraged buyouts (e.g, Song and Walkling, 2000; Cai, Song, and Walkling, 2011; Servaes and Tamayo, 2014; Slovin, Sushka, and Bendeck, 1991; Chevalier, 1995; Kovenock and Phillips, 1997; Harford, Stanfield, and Zhang, 2016; Bernstein et al., 2017; Aldatmaz and Brown, 2020). While the spillover effects of both acquisitions and leveraged buyouts have already been investigated, we are not aware of any study that presents evidence on the incremental effects of private equity acquisitions compared to strategic acquirers on peers and how these effects are shaped by attributes of the peers as well as the acquired firms. Studies on the leveraged buyout wave of the 1980s show that rival firms tend to invest more when facing highly-levered competitors (e.g., Chevalier, 1995; Kovenock and Phillips, 1997). Harford, Stanfield, and Zhang (2016) is close to our paper, showing that LBOs and strategic acquisitions have different implications for the target industry and the peer firms. However, their analysis mostly focuses on the likelihood of future acquisitions and stock price performance,⁶ while we extend the analysis

⁶Harford, Stanfield, and Zhang (2016) find that an LBO increases the likelihood for an industry peer to be acquired in either an LBO or a strategic acquisition, whereas a strategic acquisition significantly reduces the likelihood of an LBO occurring in the same industry. They also document that peer firms are more likely to increase R&D and enter into strategic alliances following LBOs but not strategic M&As, consistent with LBOs significantly impacting the competitive environment of the industry. They also make governance changes, even if they do not improve it, but they put in place defenses, reducing board independence and increasing antitakeover

to different corporate policies and examine how the relationship is modified by market share and leadership. Differently from Bernstein et al. (2017) and Aldatmaz and Brown (2020), which document positive externalities created by private equity investments at aggregate industry level in terms of higher employment and productivity, we provide evidence of spillover effects due to private equity acquisitions at firm level.

Finally, we add to the literature that investigates how leadership in the product market (e.g., Leary and Roberts, 2014; Kovenock and Phillips, 1997) shapes corporate policy. We find that the market shares both of the acquired firms as well as the peer firm generate a heterogeneous response to the acquisition. In particular, we document policies consistent with a softening of competition within the industry following acquisitions of high market-share firms by private equity funds.

The remaining of the paper proceeds as follows: Section 2 describes the data, the sample and the variables used in the analysis, and the methodology, Section 3 shows the main results, Section 4 provides additional analyses. We discuss robustness checks in Section 5. Section 6 concludes.

2 Data and Sample

2.1 Sample

We start from a list of mergers and acquisitions from Refinitiv's M&A module, applying the following screens. The transactions are announced and completed between January 1997 and December 2019 and have US public companies as targets. Deal value is at least \$1 million. The acquirer has an ownership in the target firm of less than 25% six months before the announcement date and of at least 50% after the transaction. Moreover, following Officer, Ozbas, and Sensoy (2010), we impose a delisting event for the target within one year from the announced transaction. We exclude deals with target companies classified as REITs, closed-ended investment funds and financial institutions (SIC codes from 6000 to 6999). We also exclude bankruptcies, restructurings, MBOs and transactions funded by individuals, spin-offs, share repurchases and stock splits. Finally, the target company must be listed in Compustat and CRSP provisions and share repurchases.

databases as well as in the Hoberg and Phillips database for industry classification (Hoberg and Phillips, 2016). Our final ‘acquisition sample’ is composed of 3,441 transactions. We report the steps that led us to the final sample in Appendix A.

To study the heterogeneous impact that different acquirers have on their targets’ rivals, we classify acquisitions into private equity deals, with private equity firms as acquirers, and strategic deals, with acquirers different from private equity firms. In order to classify the deals, we start by manually searching the deal synopses and the short business descriptions of acquirers provided from Refinitiv, as in Officer, Ozbas, and Sensoy (2010). However, this description is very general and sometimes fails to properly identify private equity firms. Thus, we screen the SEC filings (namely, DEF14A, PREM14A, SC-T-TO, DEFS14A) searching for corroborating information about the acquirer type and we integrate them with internet searches (Boone and Mulherin, 2011).

At the end of this process, we are left with 3,002 strategic transactions and 439 private equity deals. Table 1 shows the time series of corporate acquisitions, as distinguished between strategic and private equity deals. As expected, acquisitions tend to happen in waves (e.g., Harford, 2005; Rhodes-Kropf, Robinson, and Viswanathan, 2005). Our data capture the wave of the late 1990s, with a peak of 317 corporate takeovers in 1999 and 22 private equity acquisitions both in 1999 and 2000. Another peak occurs before the crisis of 2008 with 139 corporate acquisitions in 2007 and 33 private equity acquisitions in 2006, after which the market freezes for some years (Martos-Vila, Rhodes-Kropf, and Harford, 2019).

[Please Insert Table 1 here]

The ‘acquisition sample’ is the starting point to create the ‘rival sample’, which will be used for the analyses in the following sections. We start from the universe of firms listed in CRSP and Compustat and we identify their peers for every sample year using the firm pairwise similarity scores by Hoberg and Phillips (2016).⁷ We sort on the similarity score to select the top 5 rivals. We identify rivals for year t based on the firm pairwise similarity scores at the end of year $t - 1$ (i.e., for a firm-year observation in 2010, rivals are defined using the 2009 scores).

⁷They are firm-by-firm pairwise similarity scores, which identify for each firm the ones related to them. Classification is based on a text parsing algorithm applied to the business descriptions of the 10-K annual filings with the SEC from 1996 to 2019, which determines the choice of our sample period. Industry classification is as granular as the SIC 3 digits code. A higher similarity score means that firms are closer rivals. See: <http://hobergphillips.tuck.dartmouth.edu/industryclass.htm>

If a firm does not have 5 rivals, we use those available.⁸ Throughout the paper, we use the term rival to identify the selected peer firms. We then merge this ‘rival sample’ with the ‘acquisition sample’ to determine whether one or more rival firms have been acquired for each sample year.

2.2 Methodology

We employ a series of panel and cross-sectional regressions to investigate whether firms’ corporate policies, performance, risk and probabilities of going bankrupt or being acquired are affected by the fact that one (or more) of their closest rivals have been acquired. We include firm and year fixed effects, with standard errors clustered at firm level.

The first equation investigates the impact of acquirer type, specifically PE funds, on corporate policies.

$$Y_{i,t} = \beta_1 * Acquired_{i,t-1} + \beta_2 * PE_{i,t-1} + \beta_3 * Size_{i,t-1} + \tau_t + \lambda_i + \epsilon_{i,t} \quad (1)$$

where $Y_{i,t}$ are variables proxying for corporate policies (investments, financial and payout decisions) that are discussed in Section 2.3. $Acquirer_{i,t-1}$ is the number of rivals taken over by any kind of acquirer over the total number of rivals (maximum 5) in year $t - 1$. It captures the baseline effect of having rivals taken over in a given year. $PE_{i,t-1}$ captures the fraction of rivals bought out by private equity funds: it is the number of rivals acquired by PE funds over the total number of rivals (maximum 5). For example, if the takeover occurs in 2010 ($t-1$), we measure the effect on peers’ corporate policies one year later, in 2011 (t). Rivals are selected on the basis of the 2009 ($t-2$) Hoberg and Phillips scores. Thus, β_2 coefficient in Equation 1 measures the incremental effect of a rival acquired by a private equity fund compared to a strategic acquirer. $Size_{i,t-1}$ is included to control for firms’ dimension in terms of assets. Finally τ_t and λ_i are year and firm fixed effects, respectively.

The second equation adds the impact of market share, debt and cash ($X_{i,t-1}$) and their interactions with the acquirer type variables.

⁸We also extend to the top 10 rivals in a robustness analysis.

$$\begin{aligned}
Y_{i,t} = & \beta_1 * Acquirer_{i,t-1} + \beta_2 * PE_{i,t-1} + \beta_3 * X_{i,t-1} + \beta_4 * Acquirer_{i,t-1} * X_{i,t-1} + \\
& + \beta_5 * PE_{i,t-1} * X_{i,t-1} + \beta_6 * Size_{i,t-1} + \tau_t + \lambda_i + \epsilon_{i,t}
\end{aligned} \tag{2}$$

We also employ a similar specification to estimate the probability of acquisition and bankruptcy for the sample firms depending on their rivals being taken over and the market positioning.

2.3 Variables and Summary Statistics

This section presents all the variables used in the empirical analysis. Appendix B reports their definitions and Table 2 presents their summary statistics.

[Please Insert Table 2 Here]

The main (independent) variables, *Acquired* and *PE*, are computed as intensities, thus accounting for how many firms' rivals have been acquired in a given year. On average, 3.6% of each firm's rivals are acquired and 0.4% are targeted by private equity funds, implying that most of the takeovers are strategic ones.

The next set of variables are computed from rivals' data: *Market Share* is the sum of rivals' market share, where rival's market share is the ratio of its sales over industry sales. On average, firms' closer rivals cover 3.01% of industry sales, with a median value of 0.7%. *High Debt* and *Low Cash* are computed as intensities as in Leary and Roberts (2014), thus accounting for how many firms' rivals have high debt and low cash, respectively. We consider a firm as high debt (low cash) firm if it belongs to the top (bottom) tercile of the debt (cash) over assets distribution for each industry and year. On average, 32.5% (33.4%) of firms' rivals have high debt (low cash). We then compute similar variables for the sample firms. *Own Market Share* is the market share of the sample firm: on average, each firm covers 0.65% of its industry sales. *Own High Debt* and *Own Low Cash* are binary variables, taking the value of one if the firm has high debt or low cash, respectively. In all cases, about one third of our sample firms has high debt and low cash.

We use the following dependent variables to examine sample firms' corporate policies. The first group investigates investments: *Total Investments* is the sum of *Capex*, *R&D* and *Acquisitions*, scaled by total assets. The largest component of total investments is research and

development expenses⁹, with an average value of 5.28%. *Capex* has a slightly lower average value than *R&D* (4.38%); *Acquisitions* represent the smallest component, with a mean value of 2%.

The next group of variables accounts for capital structure and payout policies, which the literature has shown to be affected by peer effects. Indeed, firms' decisions about financial structure are also explained by industry factors (e.g., Frank and Goyal, 2009; Leary and Roberts, 2014), especially in more concentrated industries (MacKay and Phillips, 2005).¹⁰ *Leverage*, which is the sum of long and short term debt, and *Cash* are divided by total assets, and represent 23.58% and 17.63%, respectively, of the firm's assets, on average. Previous literature has also documented spillover effects in dividend policies (Grennan, 2019).¹¹ We consider three variables related to the payout policy of a firm: *Payout* is divided by total assets and it is the sum of *Dividends* and *Repurchases*. Sample firms pay out on average 3.12% of their asset, with *Repurchases* being the largest component (1.74%).

We proxy for competition threats using *Fluidity*, which measures how firm product market changes on the basis of its product market vocabulary (Hoberg and Phillips, 2016).

To examine if firms' performance and risk are affected by different types of acquisitions, we employ both market and operating measures. *Excess Return* measures the stock market performance. It is the annual excess return over the corresponding size and book-to-market Fama and French portfolio and its average is close to zero (0.76%). *ROA* is a measure of operating performance and it is positive (3.55%).¹² *Return Volatility* is the standard deviation of daily stock returns, with an average value of 3.49%.

Finally, *Bankruptcy* is a binary variable taking the value of one if the firm goes bankrupt within one year of the year considered. Overall, bankruptcy is an unlike outcome for our sample firms. Likewise, *Acquisition* is a binary variable taking the value of one if the firm is acquired

⁹Following the standard convention, the observation is replaced with 0 if the value is missing.

¹⁰Leary and Roberts (2014) also examine sources of variation in peer effects. They find that leaders and followers show different reactions to their peers in that followers are sensitive to financial policies of industry leaders, but the reverse does not hold. This behavior is explained with learning and reputational concerns, with leaders less concerned about followers' choices.

¹¹(Grennan, 2019) finds that consistent with the predictions in Lintner (1956) partial adjustment model for dividend payments, firms tend either to shorten the adjustment period or to increase the target payout ratio when peers increase their dividends.

¹²In unreported analysis, we also compute the cumulative abnormal return over a 5-day event window centered on the rivals' acquisition announcement day with a market model. Using the 13,827 firms with acquired rivals, we find on average a positive and significant CAR of about 0.46%.

within one year of the year considered. About 3% of our firm-year observations are for sample firms that are acquired within one year.

3 Empirical Analysis

The following section provides evidence on the effects of acquisitions by different types of acquirers on firms' corporate policies. Indeed, when rival firms are taken over, they determine a reorganization at industry level, which influences firms' operations and corporate policies. We start with the baseline model, which accounts for the different acquirer type, then we introduce the role of market share and of debt and cash, both on rivals' and on firms' side.

3.1 The Type of Acquirer

The literature has shown that firms learn from their peers, collecting information and observing their actions and shocks, to make decisions about their own policies and exploit growth opportunities (e.g., Roychowdhury, Shroff, and Verdi, 2019; Albuquerque et al., 2018; Leary and Roberts, 2014).

While reactions in corporate policies to rivals being acquired are well documented, we introduce a source of heterogeneity related to the acquirer type, i.e. strategic acquirers vs private equity funds. Indeed, strategic buyers select their targets on the basis of synergistic potential and complementarities that allow them to create a new integrated entity that will continue operating for the foreseeable future. Private equity firms, instead, select companies with agency problems but with great potential for improvements, to implement operating as well as corporate governance changes (e.g., Jensen, 1989; Eckbo and Thorburn, 2013; Stowell, 2017) and successfully exit their investments after a median of six years (Kaplan and Stromberg, 2009). Therefore, it is reasonable to expect that companies have different reactions to their rivals being acquired by different acquirers.

Table 3 reports results for panel regressions for the effect of the acquirer type on firms' corporate policies, i.e. investments, financial and payout decisions. All regressions include firm and year fixed effects, with the standard errors being clustered at firm level.

[Please Insert Table 3 Here]

When their rivals are acquired, firms increase their investments in acquisitions, which reflects into higher total investments. This is in line with Bustamante and Frésard (2021) and Bernard, Blackburne, and Thornock (2020), who find that firms acquire information about their peers and use it to set their investment level. It is also consistent with Gorton, Kahl, and Rosen (2009), whose theory predicts a race to increase firm size through mergers to ensue for either defensive or positioning reasons. However, neither R&D nor capex are significantly adjusted, which indicates that firms do not alter their internal investments, but they tend to rely more on external growth in response to the shock. This higher acquisition spending is partially financed with cash and with a reduction in share buybacks. When considering takeovers of rivals by PE funds, we notice a markedly different behavior in certain corporate policies, which is consistent with firms adopting defensive strategies to lower the probability of being acquired. In fact, firms decrease capex and increase both leverage and payout, the latter as an effect of higher share repurchases. Consistently, Leary and Roberts (2014), observe that managers consider the financing decisions and characteristics of peer firms as informative for their own financing decisions (Frank and Goyal 2009; MacKay and Phillips 2005). Therefore, there is no evidence suggesting that firms respond to a rival's acquisition by a private equity fund with predatory strategies.

Overall, this evidence supports the hypothesis that firms adjust their corporate policies differently depending on who acquired their rivals. In particular, our findings are consistent both with firms re-positioning themselves to face stronger rivals as well as with the takeover avoidance explanation. Indeed, the larger synergistic potential associated with strategic acquisitions leading to a more formidable rival determines the reduction in cash and payout used to acquire more, thus being prepared to compete against the new stronger entity resulting from the merger. By contrast, private equity acquisitions give raise to defensive strategies: when observing a leveraged buyout in the industry, firms realize there is an increased likelihood of takeovers within industry, thus they adjust to be less appealing to other potential private equity buyers (lower investments, higher leverage and payout).

3.2 Market Share

The positioning of rivals within the industry is an important factor that firms need to take into account in setting their own policies, since it could influence and possibly change the reactions to acquisitions of their rivals by different types of acquirers (Leary and Roberts, 2014). We use the market share, i.e. the percentage of firms' sales with respect to industry sales, as proxy for the relative importance of firms within their industry. We consider market share as continuous variable, but we also employ a binary transformation in an additional test, as in Leary and Roberts (2014).¹³

In Table 4 Panel A, we include the sum of rivals' market share (*Market Share*), the sum of acquired rivals' market share (*Acquired Market Share*) and the sum of PE acquired rivals' market share (*PE Market Share*). All the regressions include firm and year fixed effects with errors clustered at firm level. Results of Table 3 are confirmed: when their rivals are acquired, firms use cash to acquire more. When their rivals are acquired by PE funds, firms decrease capex and increase leverage to be less appealing to other potential PE buyers. Moreover, if rivals account for a larger portion of the market (*Market Share*), firms change their investment mix, fostering internal growth (*R&D*) and relying less on external growth (*Acquisitions*). Also, they return more money to their shareholders, both in terms of share repurchases and dividends. More importantly, while there is no incremental reaction when larger rivals are acquired in strategic mergers, there is a significant impact on firms' policies when high market-share rivals are acquired by private equity funds (*PE Market Share*). The result of fewer acquisition investments and higher payout in response to private equity leveraged buyouts suggests a relaxation of the competitive pressure. In fact, large rivals acquired by PE funds are now loaded with debt, thus reducing their ability to compete aggressively in the product market. These findings do not provide support to predatory strategies (Bolton and Scharfstein, 1990). These results also represent a change with respect to Kovenock and Phillips (1997), which show that in 1980s rival firms were more likely to invest when the market share of leveraged firms was higher. Overall, Table 4 Panel A documents that firms fine tune their response to rivals' acquisitions not only on the basis of acquirer type but also on the basis of rivals' market share (in line with Leary and Roberts, 2014).

¹³See Section 5.

Table 4 Panel B replicates the analysis above, considering firms' own market share. *Own Market Share* is the percentage of firm's sales over industry sales, *Own Market Share x Acquired* is the percentage of acquired rivals times firm's market share and *Own Market Share x PE* is the percentage of PE acquired rivals times firm's market share. Again, the table corroborates the baseline findings of Table 3 for the effect of the acquirer type on corporate policies. Moreover, firms with larger market share are more prone to R&D, and rely less on capex and acquisitions. They also return more money to their shareholders, both in terms of dividends and share repurchases. This signals that, as firm's position in the market is stronger, it can focus on strengthening its competitive advantage moving resources from short term to longer term projects, i.e. R&D. At the same time, the dominant position in the market allows these firms to generate enough cash flows to return more money to their shareholders. More importantly, we do not find evidence that a higher market share works as an amplifier for firms' adjustments on their corporate policies following acquisitions. Indeed, there are only two interactions with a significant coefficient: high market share firms acquire even more as their rivals are taken over, suggesting that dominant firms in the industry are more responsive to potential threats. Also, firms with larger market share tend to leverage up more when their rivals are acquired by PE funds, which is consistent with the takeover avoidance explanation. These results further confirm a lack of support for predatory strategies following acquisitions.

[Please Insert Table 4 Here]

Collectively, the more granular view of the variation in the peer effects offered by Table 4 confirms and enriches the findings of Table 3. Results are still consistent with the positioning explanation in case of strategic mergers, with firms using cash and reducing payout to grow faster, since they need to face a new stronger competitor. In case of private equity leveraged buyouts, firms decrease capex and increase leverage to be less appealing to other potential buyers, thus being consistent with a defensive strategy. The market share also plays a significant role in shaping firms' actions and reactions. When PE funds buy larger rivals, results suggest a relaxation in competition, with firms investing less and paying out more. This is possibly due to the post-LBO high debt of targets, whose ability to compete is now reduced. It can also be due to a lack of resources by PE funds that, having just bought out large companies, do not have enough resources to buy other companies, thus not being a serious threat for other firms within industry. By contrast, higher-market-share firms are more responsive to potential threats

coming from rivals' takeovers, acquiring more in case of strategic mergers to grow even more stronger and increasing leverage in case of LBOs to be less appealing to other buyers.

3.3 Debt and Cash

Another possible explanation for the different adjustments in firms' corporate policies after rivals' acquisitions hinges on the role of their debt and cash balances. On the one hand, a high level of debt and a low level of cash can negatively affect firms' financial flexibility and their ability to compete in the product market, making them vulnerable to predation (e.g., Bolton and Scharfstein, 1990) and price competition by rival firms (e.g., Chevalier, 1995; Kovenock and Phillips, 1997). We expect that firms increase investments more after private equity leveraged buyouts than after strategic acquisitions, exploiting targets' high debt post-LBO. Therefore, it is more likely to observe these strategies when rivals are financially constrained. Also, they are more likely to be implemented by firms that are financially unconstrained, and therefore well-positioned to exploit the new competitive environment. However, another mechanism could be at play, that is the higher post-LBO debt may signal a softening in product market competition (Brander and Lewis, 1986; Maksimovic, 1988), which leads to a reduction in investments and an increase in payout.

Table 5 Panel A considers rivals' debt. As more of their rivals are highly levered (*High Debt*), firms decrease all types of investment spending, which points to a relaxation in competition due to the constrained status of rivals. Firms also change their financing mix, reducing cash and increasing leverage, possibly imitating their rivals. More importantly, when acquired rivals are debt-heavy (*Acquired High Debt*), firms increase their short term investments (*Acquisitions*), which reinforces the base effect of higher acquisitions following takeovers of firms' rivals. However, firms also adopt a longer term perspective with higher R&D after their debt-heavy rivals' takeovers. This signals that firms try to preserve and possibly improve their position in the market when their rivals are acquired. Looking at the impact of rivals bought by private equity, the baseline results are confirmed and, interestingly, the increase in firms' R&D becomes significant, at the 10% level only, though. This change in the investment mix, i.e. higher *R&D* and lower *Capex*, may signal a softening in competition when rivals are acquired by PE funds, which allows firms to move resources towards longer term investments that can lead them to

build a stronger competitive advantage. Also, the more PE acquired rivals are debt-heavy (*PE High Debt*), the more firms decrease their *Leverage*, which counterbalances the base effect of higher leverage following rivals' LBOs. This finding is consistent with the view that private equity acquirers do not have much room to increase the debt level in these already highly levered firms, thus providing less incentives for firms to adjust their own leverage policy.

Overall, these results show that the debt profile of rivals is an important element to be taken into account for firms setting their own corporate policies. Takeovers of high debt rivals lead to higher investment spending, signalling that firms react to threats coming from new competitors established as a result of the mergers. They invest more in the short term to react faster to the new threat, but they also exploit the constrained situation of acquired rivals to build a stronger and long lasting competitive advantage, by investing in research & development. However, when debt-heavy rivals are bought out by PE funds, firms' reaction is limited to a decrease in leverage, which counterbalances the base effect of higher leverage following LBOs. Results are thus in contrast with the predation explanation, predicting higher investments by firms to drive PE acquired rivals out of the market.

Panel B of Table 5 shifts the attention to the firm's own debt, interacting it with the acquirer type. Debt-heavy firms (*Own High Debt*) decrease their investment spending due to their constrained situation. They also reduce payout (both share repurchases and dividends) to their shareholders and make use of their cash to increase even more their leverage. However, highly levered firms whose rivals are acquired (*Own High Debt x Acquired*) acquire more, thus suggesting that constrained firms are the most responsive to threats coming from the takeover market. Since they are already highly levered, they reduce their cash reserves to at least partially finance these acquisitions. By contrast, when rivals of debt-heavy firms are acquired in LBOs (*Own High Debt x PE*), firms decrease their acquisition spending compared to strategic acquisitions. This is consistent with the view that rivals acquired by private equity are not considered a significant threat in the product market.

[Please Insert Table 5 Here]

The second type of constraint that we examine is whether the firm has a low cash balance. Panel A of Table 6 refers to rivals' cash profile. As more of their rivals do not have abundant cash (*Low Cash*), firms invest less in R&D and, similarly to what observed in Panel A of Table

5, change their financing mix according to their rivals', reducing cash and increasing leverage. They also reduce their dividends to shareholders. The cash constrained status of rivals seems to have a limited effect on firms' corporate policies. Firms increase cash when their low cash rivals are acquired (*Acquired Low Cash*), which may be an attempt at avoiding being acquired. Also, when low cash rivals are bought out by PE funds (*PE Low Cash*), firms decrease their acquisitions, which can be interpreted as a relaxation in competition.

When firms themselves have low cash (*Own Low Cash* in Panel B of Table 6), they invest less, decrease their cash and payout and increase their leverage, consistent with them being constrained. Moreover, low cash firms reduce capex after their rivals are acquired (*Own Low Cash x Acquired*). More importantly, low cash firms increase leverage after their rivals are bought out by a PE fund (*Own Low Cash x PE*), which is consistent with a defensive strategy due to the possibility of being acquired.

[Please Insert Table 6 Here]

Overall, Tables 5 and 6 show that firms do take into account their own and their acquired rivals' constrained status when setting up their corporate policies. Moreover, they adjust differently depending on the type of constraints that we consider. When acquired rivals are constrained by a high level of debt, firms foster their investment spending to survive the tougher competitive environment resulting from the takeovers. They also invest more in R&D to build a stronger competitive position exploiting the fact that acquired rivals are constrained. Also, when firms themselves are debt constrained, they invest more, since they already have high debt, thus being highly responsive to threats. Reaction to rivals' LBOs is different though, with firms decreasing leverage when high debt rivals are bought out by PE funds and acquiring less when they are debt constrained. However, firms do not engage in massive investments to drive LBO targets out of the market, as the predation theory predicts. These adjustments are interpreted as the result of a perceived softening in competition after LBOs.

When the constraint is on cash side, results are different. Indeed, firms increase their cash if low cash rivals are taken over and decrease capex if they are cash constrained and their closer rivals are acquired. The former reaction is likely dictated by the willingness of firms to defend against the possibility of being acquired, whereas the latter is most likely the result of their limited resources. These reactions are therefore different from the ones associated with debt

constrained status, which seems to be the result of a tougher competitive environment. When low cash rivals are acquired in LBOs, firms perceive a softening in competition, which is in line with the perception associated to PE acquired high debt rivals. However, the former translates into lower acquisitions and the latter into lower leverage. A relaxation in competition is also associated with rivals' LBOs of high debt firms, which leads to lower acquisitions. Differently, low cash firms whose rivals are acquired in LBOs increase their leverage to defend against the possibility of being taken over.

4 Additional Analyses

4.1 Performance & Risk

After having presented and discussed the evidence on corporate policies, we examine the effect of acquirer type and market positioning on performance and risk. While these are not decisions made by the firm itself, they can also be impacted by the acquisitions of rivals as well as by the changes in corporate policies induced by them. We examine how rivals' acquisitions affect firms' performance in Table 7. Panel A considers firms' annual stock market performance (*Excess Return*) and operating performance (*ROA*). We do not observe a significant effect on firms' excess return and ROA depending on rivals' acquirer type and market position. Thus, the changes implemented following the rival's takeover do not generate extra performance. This is consistent with an equilibrium argument where firms adopt the corporate policies that are optimal for themselves upon observing a rival being bought and its type of acquirer.¹⁴

In Panel B, we consider the effect of acquirer type and market share on firms' market risk, proxied by the return volatility. Consistent with a reduction in the competition pressure, we find that firms' stock returns are less volatile (*Return Volatility*) after rivals' acquisition by PE funds. While the market share of acquired rivals does not impact the firm's stock volatility, the firm's own market share does. In fact, a high market share makes the firm's return volatility higher, but it attenuates the decrease in stock returns volatility after private equity investors buy rivals. Overall, this table documents that acquisitions and the type of acquirer also affect

¹⁴In an unreported analysis, we regress the firms' abnormal returns at the time of the announcement of their rivals' acquisitions on a dummy to capture private equity acquisitions and controls. We find that, although the reaction to rivals' LBOs is negative, it is not significant.

the riskiness profile of the peer firms.

[Please Insert Table 7 Here]

4.2 Acquisitions and Bankruptcies

Firms may react to rivals' acquisitions to increase their probabilities of survival as stand-alone entities. Indeed, it may be the case that firms become themselves targets of takeovers or they may go bankrupt as a consequence of the reorganization of the competitive environment following their rivals' acquisitions. Indeed, Slovin, Sushka, and Bendeck (1991); Song and Walking (2000); Harford, Stanfield, and Zhang (2016)) find evidence that an LBO occurring within an industry significantly increases the likelihood of a rival being targeted in an acquisition.

Panel C of Table 7 reports results from linear probability models for the probability of being taken over (going bankrupt) within one year of rivals' acquisitions. *Acquisition Probability* is a binary variable taking the value of 1 if the firm is acquired within one year of the rivals' takeovers; *Bankruptcy Probability* is a binary variable taking the value of one if the firm goes bankrupt within one year of the rivals' takeovers.

We observe that rivals' takeovers increase the probability of acquisitions within industry, thus making more likely for firms to be taken over in the next year. However, no incremental effect is associated with private equity acquisitions. High market share firms whose rivals are bought out by PE funds are less likely to be acquired in the year following the takeover. This is consistent with more powerful firms being able to compete more aggressively, thus avoiding offers by other potential acquirers. As for the probability of going bankrupt (Panel C of Table 7), we do not observe any effect of rival's acquisitions.

Overall, the results indicate that the strategies put in place by the firms are successful in preserving their own independence.

4.3 Horizontal and Non-horizontal Acquisitions

Strategic acquisitions can be further divided into horizontal and non-horizontal acquisitions, which may trigger a different adjustment in firms' corporate policies. *No Horizontal* is computed

as an intensity measure, which accounts for the number of non-horizontal rivals' acquisitions over the total number of rivals. Non-horizontal acquisitions are defined as acquisitions involving firms that do not belong to the same industry. On average, 1.74% of firms' rivals are acquired in a non-horizontal acquisition.

Results are displayed in Table 8. Firms increase their acquisitions when rivals are acquired, as a reaction to increased competition due to synergies generated by the new entity. Firms also decrease their capex and acquisitions and increase their leverage and repurchases as a consequence of rivals' LBOs, in line with the defensive strategies already discussed in previous sections. Also, when rivals are taken over by buyers operating in different industries (non-horizontal acquisitions), firms invest even more in acquisitions. This is likely due to the willingness to grow faster to face a stronger new entity whose operations span over different industries, thus representing a serious threat to firms' operations.

[Please Insert Table 8 Here]

4.4 Effects on Competition

In this subsection we run a specific test for the effect on competition generated by different types of acquisitions. We start analyzing how different types of rivals' takeovers impact competition in the product market of firms. We then interact acquirer type variables with market share variables, to check whether firms' positioning alter the results. We employ the fluidity measure by (Hoberg, Phillips, and Prabhala, 2014) (*Fluidity*), which is a proxy for the competitive threats and the changes in firms' product market. Specifically, it measures how firms' product market changes based on their product market vocabulary. In line with what found above, we expect a more accentuated increase in competition for strategic takeovers, due to the creation of a larger rival associated with these deals. On the other hand, we expect a decline in competition following private equity acquisitions, given that the target company is loaded with debt and cannot benefit from operating synergies with the acquirer.

Table 9 reports the results, which are in line with our expectations. While rivals' private equity acquisitions decrease competition in their industry, takeovers in general have a positive impact on competition, even though the coefficient is significant only when we include the rivals' market share in the model.

[Please Insert Table 9 Here]

5 Robustness Tests

We have shown that firms react to the acquisition of their rivals adapting their corporate policies in a different way according to the type of acquirers. In this section, we perform robustness checks.

In our analysis, we assign the same weight to each rival, but it could be argued that these rivals are different in terms of their market capitalization. While the moderating variables we use already partially account for these differences, we examine if our results are due to how we weight rivals. Therefore, in Table 10, we weight rivals on the basis of their market capitalization. We re-run the regressions of Table 4 and observe that results are generally robust to the different weighing of rivals. In fact, when we account for their market share (Panel A of Table 10), firms still make use of their cash reserves to acquire more as a higher percentage of their rivals is taken over. Firms also decrease their capex as their rivals are bought out by private equity funds. However, we notice that the increase in leverage as rivals are targeted in LBOs is no longer significant. This may suggest that the result of higher leverage in the main analysis is driven by responses to acquisitions of smaller rivals. Moreover, when rivals acquired by private equity have high market shares, firms move their resources from investments in acquisitions to buy back their own shares.

When considering the market share of sample firms (Panel B of Table 10), we obtain a similar picture: firms acquire more as response to their rivals' takeovers and invest less in capex and increase their share repurchases as their rivals are bought out by PE funds. The decrease in capex associated with PE LBOs is amplified by the high market share of the sample firm. We also observe an additional effect in terms of higher research & development expenditures as rivals of high market share firms are taken over.

[Please Insert Table 10 Here]

An additional robustness check replicates the analyses of Tables 3 and 4, employing firm and industry by year fixed effects to control for yearly industry characteristics that could drive

the results. In unreported tables,¹⁵ we find that firms still invest more in external acquisitions to face the new stronger merged entities. However, following rivals' acquisitions by private equity, leverage increases. The decrease in capex is not significant anymore, while it is significant the increase in R&D. When considering the market share, results are in line with the ones already found in Table 4. Firms increase their acquisition investments after takeovers, and takeover avoidance is at the basis of firms' reactions to rivals' LBOs. Also, when larger market share rivals are acquired by PE funds, firms acquire less and payout more, consistent with a defensive approach. Finally, high market share firms whose rivals are acquired increase both R&D and acquisitions, thus being more responsive to threats to their current status in the market. By contrast, high market share firms decrease R&D if their rivals are acquired by PE funds, the increase in leverage is not significant anymore, though.

We then expand the pool of rivals, considering the top 10 rivals for each sample firm rather than the top 5 as in the main analysis. We replicate again the analyses in Tables 3 and 4 using this new larger pool. In unreported tables, we find that results are in line with those already shown. When their rivals are acquired, firms acquire more in response to the stronger competitor generated by the new merged entity. However, when rivals are targeted in LBOs, firms decrease their capex and increase their leverage, which is consistent with a defense against the possibility of being taken over. Defensive strategies are also adopted when PE funds acquire larger market share rivals, increasing leverage and repurchases and lowering investments. Larger market share firms are still highly responsive to their rivals' acquisitions. They increase their investments (the increase in acquisitions is not significant anymore, it is the increase in R&D, though) and the decrease in cash and leverage becomes significant. The increase in firms' leverage following rivals' LBOs is still significant, and the decrease in R&D becomes significant, too, thus pointing once again to the adoption of defensive strategies.

We also experiment with lags on the independent variables of Table 3, since it may be argued that it takes time for corporate policies to adjust. In unreported tables, baseline results are confirmed and enriched. Also, there are changes in firms' investment type, with R&D increasing and acquisitions decreasing 2 years after the acquisitions, and capex decreasing 3 years after the takeovers. This change in investment mix indicates the willingness of firms to grow quickly in the year following the rivals' takeover not to lose their market, then in successive years firms

¹⁵The tables, like all the unreported ones, are available upon request from the authors.

move resources from external acquisitions to longer term investments, finally three years after they decrease their daily investments. As for financial policies, firms increase leverage 2 years after and decrease cash both 2 and 3 years after the takeovers, likely due to their investment needs. Finally, almost all the adjustments in corporate policies associated with LBOs occur in the year following the LBO itself, since the only significant coefficient is on capex 2 years after the LBO. This is an additional support to the takeover avoidance view used to explain firms' reactions to their rivals' LBOs, since the likelihood of a takeover associated with LBOs for firms' operating in the same industry as PE targets increases in the year following the LBO (Harford, Stanfield, and Zhang, 2016).

We re-run the panel regressions of Table 3, adding two independent variables that make a further distinction in the type of acquirer. *Private* accounts for the fraction of private strategic acquirers, and *Club* accounts for the fraction of syndicated deals in private equity acquisitions. Indeed, reactions to these types of takeovers may be different, since private companies are usually smaller and have different disclosure requirements than public ones. Also, the presence of multiple bidders in club deals may convey additional information to the peer firm. In unreported tables, we find that baseline results are confirmed: synergies generated in strategic takeovers make firms invest more through lower cash and pay out less. Also, following rivals' acquisitions by private equity, firms invest less both in terms of capex and acquisitions and increase leverage and payout, consistent with the documented defensive approach. Lower acquisition spending is observed after rivals' takeovers by private bidders possibly indicating a relaxation in competition. By contrast, higher acquisitions and lower leverage follow club deal LBOs, thus mitigating the defensive strategies observed on the PE coefficient.

Finally, we replicate the analyses of Tables 3 and 4, but, instead of employing the market share as continuous variable, we use it in the same way as we did for debt and cash in Tables 5 and 6, respectively. In unreported analyses, we find results that are remarkably similar.

6 Conclusions

We have investigated the heterogeneity of peer effects generated from corporate acquisitions of US listed firms from 1997 to 2019. Although the literature has shown that there are peer

effects in almost every aspect of companies life including corporate acquisitions, little attention has been paid so far to the heterogeneity of these effects. The first source of heterogeneity we consider is the acquirer type, distinguishing between private equity and strategic acquirers. Given the substantial difference of these two types of buyers, it is reasonable to expect different reactions by targets peers. We confirm the existence of differentiated spillover effects on peers' investments and financial policies depending on the identity of acquirers.

When we combine the effect of different acquirers with firms' and peers' positioning within industry, results are confirmed and enriched since industry positioning affects firms' investment and financial policies. We document evidence suggesting that competition decreases following an acquisition of a rival by a private equity fund and that these acquisitions trigger a more defensive reaction than strategic deals. We also show that acquisitions trigger a cascade effect, with firms increasing acquisition spending after takeovers (mostly strategic ones). We do not find evidence supporting predation strategies, not even for firms with high market share or with financial flexibility.

We also investigate the impact of acquirer type alone and together with market share on performance, risk and survival. Overall, we document a negligible effect on the firm's performance whereas risk is affected. In particular, acquisitions of private equity reduce the return volatility of the closest competitors, especially if they are not market leaders. Finally, the strategies put in place by firms are successful in preserving their own independence.

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Tables

Table 1: Acquisition Sample.

The table reports the time series of acquisitions, and the split between *Strategic* and *PE* acquisitions. *Strategic %* is the percentage of strategic over total number of acquisitions; *PE %* is the percentage of PE over total number of acquisitions.

| Year | Total | Strategic | Strategic % | PE | PE % |
|-------|-------|-----------|-------------|-----|-------|
| 1997 | 267 | 246 | 92.13 | 21 | 7.87 |
| 1998 | 317 | 301 | 94.95 | 16 | 5.05 |
| 1999 | 339 | 317 | 93.51 | 22 | 6.49 |
| 2000 | 267 | 245 | 91.76 | 22 | 8.24 |
| 2001 | 190 | 183 | 96.32 | 7 | 3.68 |
| 2002 | 107 | 101 | 94.39 | 6 | 5.61 |
| 2003 | 119 | 103 | 86.55 | 16 | 13.45 |
| 2004 | 115 | 102 | 88.70 | 13 | 11.30 |
| 2005 | 148 | 124 | 83.78 | 24 | 16.22 |
| 2006 | 155 | 122 | 78.71 | 33 | 21.29 |
| 2007 | 171 | 139 | 81.29 | 32 | 18.71 |
| 2008 | 110 | 96 | 87.27 | 14 | 12.73 |
| 2009 | 98 | 87 | 88.78 | 11 | 11.22 |
| 2010 | 128 | 104 | 81.25 | 24 | 18.75 |
| 2011 | 110 | 83 | 75.45 | 27 | 24.55 |
| 2012 | 103 | 82 | 79.61 | 21 | 20.39 |
| 2013 | 80 | 62 | 77.50 | 18 | 22.50 |
| 2014 | 94 | 82 | 87.23 | 12 | 12.77 |
| 2015 | 120 | 108 | 90.00 | 12 | 10.00 |
| 2016 | 126 | 100 | 79.37 | 26 | 20.63 |
| 2017 | 97 | 72 | 74.23 | 25 | 25.77 |
| 2018 | 86 | 68 | 79.07 | 18 | 20.93 |
| 2019 | 94 | 75 | 79.79 | 19 | 20.21 |
| Total | 3,441 | 3,002 | 87.24 | 439 | 12.76 |

Table 2: Summary Statistics.

The table reports summary statistics for acquirer types', firms' characteristics', corporate policies and control variables, as defined in the Appendix B.

| Variable | Mean | Median | Standard Deviation | N |
|-------------------------|--------|---------|--------------------|---------|
| Acquired | 0.0359 | 0 | 0.0966 | 100,478 |
| PE | 0.0040 | 0 | 0.0324 | 100,478 |
| Market Share | 0.0301 | 0.0069 | 0.0541 | 100,478 |
| High Debt | 0.3253 | 0.2 | 0.2740 | 100,478 |
| Low Cash | 0.3340 | 0.25 | 0.2855 | 100,478 |
| Own Market Share | 0.0065 | 0.0006 | 0.0186 | 100,064 |
| Own High Debt | 0.3201 | 0 | 0.4665 | 100,295 |
| Own Low Cash | 0.3413 | 0 | 0.4741 | 100,295 |
| Size | 6.2619 | 6.3003 | 2.2021 | 100,296 |
| Total Investments | 0.1192 | 0.0728 | 0.1453 | 91,470 |
| Capex | 0.0438 | 0.0253 | 0.0565 | 91,470 |
| R&D | 0.0528 | 0 | 0.1208 | 91,470 |
| Acquisitions | 0.0200 | 0 | 0.0555 | 91,470 |
| Leverage | 0.2358 | 0.1828 | 0.2284 | 99,827 |
| Cash | 0.1763 | 0.0802 | 0.2187 | 100,265 |
| Payout | 0.0312 | 0.0071 | 0.0598 | 87,334 |
| Repurchases | 0.0174 | 0 | 0.0419 | 87,722 |
| Dividends | 0.0128 | 0 | 0.0320 | 99,463 |
| Fluidity | 7.1905 | 6.5236 | 3.5788 | 87,968 |
| Excess Return | 0.0076 | -0.0579 | 0.5487 | 86,418 |
| ROA | 0.0355 | 0.0804 | 0.2329 | 96,375 |
| Return Volatility | 0.0349 | 0.0284 | 0.0226 | 99,434 |
| Acquisition Probability | 0.0299 | 0 | 0.1704 | 100,478 |
| Bankruptcy Probability | 0.0028 | 0 | 0.0528 | 100,478 |

Table 3: Type of Acquirers.

The table reports results from panel regressions for firms' investment, financial and payout policies depending on rivals' acquisitions by different types of acquirers. Independent variables are computed as intensities: *Acquired* is the percentage of acquired rivals by either strategic buyers or PE funds, *PE* is the percentage of rivals acquired by PE funds. Variables are defined in Appendix B. All the regressions have firm and year fixed effects; standard errors are clustered at industry level. Coefficients denoted with *, **, *** are significant at the 1%, 5% and 10% level, respectively.

| | Total Investments | Capex | R&D | Acquisitions | Leverage | Cash | Payout | Repurchases | Dividends |
|----------|------------------------|----------------------|------------------------|-----------------------|-----------------------|------------------------|------------------------|----------------------|------------------------|
| Acquired | 0.0160*** (0.0041) | 0.0002 (0.0014) | 0.0001 (0.0022) | 0.0147*** (0.0026) | 0.0002 (0.0053) | -0.0082* (0.0044) | -0.0031 (0.0021) | -0.0029* (0.0015) | 0.0002 (0.0010) |
| PE | -0.0027 (0.0107) | -0.0066* (0.0038) | 0.0071 (0.0047) | -0.0054 (0.0074) | 0.0582*** (0.0157) | -0.0132 (0.0122) | 0.0124* (0.0064) | 0.0095* (0.0051) | -0.0002 (0.0024) |
| Size | -0.0160*** (0.0014) | -0.0002 (0.0004) | -0.0284*** (0.0012) | 0.0128*** (0.0005) | 0.0198*** (0.0024) | -0.0227*** (0.0020) | -0.0057*** (0.0007) | -0.0008* (0.0004) | -0.0040*** (0.0003) |
| N | 91,470 | 91,470 | 91,470 | 91,470 | 99,827 | 100,265 | 87,334 | 87,722 | 99,463 |
| Firm FE | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| Year FE | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| R^2 | 0.031 | 0.051 | 0.082 | 0.024 | 0.036 | 0.024 | 0.021 | 0.018 | 0.015 |

Table 4: Market Share.

The table reports results from panel regressions for firms' corporate policies on the basis of acquirers' type, rivals' (Panel A) and own (Panel B) market share. *Market Share* is the sum of rivals' market share; *Acquired Market Share* is the sum of acquired rivals' market share, *PE Market Share* is the sum of PE acquired rivals' market share. *Own Market Share* is the sample firm's market share, which is then interacted with intensities: *Own Market Share x Acquired* is the sample firm's market share times the percentage of acquired rivals, *Own Market Share x PE* is the sample firm's market share times the percentage of PE acquired rivals. Variables are defined in Appendix B. All the regressions have firm and year fixed effects; standard errors are clustered at industry level. Coefficients denoted with *, **, *** are significant at the 1%, 5% and 10% level, respectively.

| Panel A: Rivals | | | | | | | | | | |
|-----------------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|------------------------|------------------------|-----------------------|------------------------|--|
| | Total Investments | Capex | R&D | Acquisitions | Leverage | Cash | Payout | Repurchases | Dividends | |
| Acquired | 0.0160*** (0.0044) | 0.0005 (0.0015) | 0.0003 (0.0024) | 0.0141*** (0.0027) | 0.0013 (0.0057) | -0.0098** (0.0048) | -0.0025 (0.0022) | -0.0026 (0.0017) | 0.0004 (0.0011) | |
| PE | 0.0056 (0.0118) | -0.0091** (0.0039) | 0.0065 (0.0055) | 0.0048 (0.0080) | 0.0562*** (0.0170) | -0.0146 (0.0138) | 0.0065 (0.0067) | 0.0049 (0.0053) | -0.0012 (0.0026) | |
| Market Share | -0.0055 (0.0099) | 0.0018 (0.0045) | 0.0149*** (0.0057) | -0.0217*** (0.0061) | 0.0279 (0.0218) | -0.0156 (0.0140) | 0.0145** (0.0061) | 0.0094** (0.0046) | 0.0051* (0.0029) | |
| Acquired Market Share | -0.0027 (0.0651) | -0.0162 (0.0279) | -0.0061 (0.0217) | 0.0252 (0.0471) | -0.0501 (0.0993) | 0.0845 (0.0649) | -0.0237 (0.0312) | -0.0096 (0.0264) | -0.0075 (0.0126) | |
| PE Market Share | -0.5617** (0.2278) | 0.1654 (0.1147) | 0.0413 (0.0737) | -0.6826*** (0.1602) | 0.1294 (0.4548) | 0.1166 (0.2277) | 0.3944** (0.1713) | 0.3059** (0.1348) | 0.0635 (0.0712) | |
| Size | -0.0160*** (0.0014) | -0.0002 (0.0004) | -0.0284*** (0.0012) | 0.0129*** (0.0005) | 0.0197*** (0.0024) | -0.0227*** (0.0021) | -0.0057*** (0.0007) | -0.0008* (0.0004) | -0.0040*** (0.0003) | |
| N | 91,470 | 91,470 | 91,470 | 91,470 | 99,827 | 100,265 | 87,334 | 87,722 | 99,463 | |
| Firm FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | |
| Year FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | |
| R ² | 0.031 | 0.051 | 0.082 | 0.025 | 0.036 | 0.024 | 0.021 | 0.018 | 0.015 | |
| Panel B: Own | | | | | | | | | | |
| | Total Investments | Capex | R&D | Acquisitions | Leverage | Cash | Payout | Repurchases | Dividends | |
| Acquired | 0.0142*** (0.0044) | 0.0005 (0.0016) | 0.0002 (0.0025) | 0.0124*** (0.0027) | 0.0003 (0.0058) | -0.0065 (0.0049) | -0.0030 (0.0022) | -0.0028* (0.0016) | 0.0003 (0.0011) | |
| PE | 0.0023 (0.0119) | -0.0080* (0.0041) | 0.0083 (0.0053) | -0.0011 (0.0081) | 0.0453*** (0.0172) | -0.0158 (0.0138) | 0.0105 (0.0066) | 0.0071 (0.0052) | 0.0001 (0.0026) | |
| Own Market Share | -0.2875*** (0.0734) | -0.1549*** (0.0415) | 0.4955*** (0.0420) | -0.5766*** (0.0535) | -0.2071 (0.1650) | 0.1202 (0.1349) | 0.2578*** (0.0662) | 0.1065** (0.0499) | 0.1391*** (0.0239) | |
| Own Market Share x Acquired | 0.2239 (0.1660) | -0.0649 (0.0481) | 0.0354 (0.0549) | 0.2694* (0.1397) | -0.0750 (0.2003) | -0.1659 (0.1448) | 0.0325 (0.0810) | 0.0322 (0.0709) | 0.0006 (0.0303) | |
| Own Market Share x PE | -0.7395 (0.5861) | 0.2414 (0.1798) | -0.2304 (0.1566) | -0.6262 (0.5058) | 2.1692** (0.9735) | 0.4110 (0.4199) | 0.2538 (0.4045) | 0.3353 (0.3442) | -0.0721 (0.0978) | |
| Size | -0.0156*** (0.0015) | 0.0001 (0.0004) | -0.0296*** (0.0013) | 0.0140*** (0.0005) | 0.0202*** (0.0025) | -0.0227*** (0.0021) | -0.0063*** (0.0007) | -0.0010** (0.0004) | -0.0043*** (0.0003) | |
| N | 91,160 | 91,160 | 91,160 | 91,160 | 99,484 | 99,922 | 87,032 | 87,417 | 99,129 | |
| Firm FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | |
| Year FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | |
| R ² | 0.031 | 0.051 | 0.085 | 0.028 | 0.036 | 0.024 | 0.022 | 0.018 | 0.017 | |

Table 5: Debt Constraints.

The table reports results from panel regressions relating firms' corporate policies with acquirers' type and the debt profile of rivals (Panel A) and of firms themselves (Panel B). *High Debt* (Panel A) is computed as an intensity and it is the percentage of rivals that have high debt, where firms with high debt are the ones in the top tercile of the debt over assets distribution for each industry and year. *Own High Debt* (Panel B) is an indicator variable equal to one if the firm is in the top tercile of the debt over assets distribution in its industry for a given year. Debt variables are then interacted with acquirers' type variables. Variables are defined in Appendix B. All the regressions have firm and year fixed effects; standard errors are clustered at industry level. Coefficients denoted with *, **, *** are significant at the 1%, 5% and 10% level, respectively.

| Panel A: Rivals | | | | | | | | | | | |
|--------------------------|-------------------|------------|------------|--------------|-----------|------------|------------|-------------|------------|--|--|
| | Total Investments | Capex | R&D | Acquisitions | Leverage | Cash | Payout | Repurchases | Dividends | | |
| Acquired | 0.0091* | -0.0010 | -0.0025 | 0.0112*** | -0.0032 | -0.0053 | -0.0055** | -0.0047** | -0.0006 | | |
| | (0.0050) | (0.0018) | (0.0029) | (0.0030) | (0.0064) | (0.0058) | (0.0025) | (0.0020) | (0.0011) | | |
| PE | 0.0036 | -0.0089* | 0.0121* | -0.0017 | 0.0829*** | -0.0077 | 0.0171* | 0.0115* | 0.0009 | | |
| | (0.0139) | (0.0048) | (0.0068) | (0.0092) | (0.0195) | (0.0151) | (0.0089) | (0.0070) | (0.0030) | | |
| High Debt | -0.0048*** | -0.0017*** | -0.0017* | -0.0016* | 0.0244*** | -0.0073*** | -0.0013 | -0.0008 | -0.0002 | | |
| | (0.0015) | (0.0006) | (0.0009) | (0.0009) | (0.0027) | (0.0020) | (0.0009) | (0.0007) | (0.0004) | | |
| Acquired High Debt | 0.0204** | 0.0034 | 0.0077* | 0.0103* | 0.0101 | -0.0085 | 0.0072 | 0.0054 | 0.0023 | | |
| | (0.0085) | (0.0030) | (0.0045) | (0.0054) | (0.0115) | (0.0089) | (0.0045) | (0.0033) | (0.0022) | | |
| PE High Debt | -0.0183 | 0.0061 | -0.0139 | -0.0108 | -0.0712** | -0.0119 | -0.0130 | -0.0060 | -0.0032 | | |
| | (0.0225) | (0.0076) | (0.0097) | (0.0155) | (0.0320) | (0.0250) | (0.0125) | (0.0099) | (0.0047) | | |
| Size | -0.0160*** | -0.0002 | -0.0284*** | 0.0128*** | 0.0197*** | -0.0227*** | -0.0057*** | -0.0008* | -0.0040*** | | |
| | (0.0014) | (0.0004) | (0.0012) | (0.0005) | (0.0024) | (0.0020) | (0.0007) | (0.0004) | (0.0003) | | |
| N | 91,470 | 91,470 | 91,470 | 91,470 | 99,827 | 100,265 | 87,334 | 87,722 | 99,463 | | |
| Firm FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | | |
| Year FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | | |
| R ² | 0.031 | 0.051 | 0.082 | 0.024 | 0.038 | 0.024 | 0.021 | 0.018 | 0.015 | | |
| Panel B: Own | | | | | | | | | | | |
| | Total Investments | Capex | R&D | Acquisitions | Leverage | Cash | Payout | Repurchases | Dividends | | |
| Acquired | 0.0090* | -0.0005 | 0.0004 | 0.0095*** | -0.0027 | -0.0029 | -0.0035 | -0.0021 | -0.0003 | | |
| | (0.0047) | (0.0017) | (0.0029) | (0.0029) | (0.0056) | (0.0057) | (0.0025) | (0.0019) | (0.0012) | | |
| PE | 0.0110 | -0.0095** | 0.0119* | 0.0038 | 0.0402** | -0.0216 | 0.0152* | 0.0133** | -0.0027 | | |
| | (0.0135) | (0.0047) | (0.0062) | (0.0089) | (0.0171) | (0.0164) | (0.0079) | (0.0062) | (0.0028) | | |
| Own High Debt | -0.0163*** | -0.0041*** | -0.0021*** | -0.0085*** | 0.0926*** | -0.0158*** | -0.0061*** | -0.0044*** | -0.0010*** | | |
| | (0.0012) | (0.0005) | (0.0008) | (0.0006) | (0.0024) | (0.0016) | (0.0006) | (0.0005) | (0.0003) | | |
| Own High Debt x Acquired | 0.0219** | 0.0025 | -0.0008 | 0.0160*** | 0.0083 | -0.0153* | 0.0015 | -0.0022 | 0.0016 | | |
| | (0.0087) | (0.0030) | (0.0044) | (0.0056) | (0.0124) | (0.0086) | (0.0041) | (0.0030) | (0.0020) | | |
| Own High Debt x PE | -0.0398* | 0.0082 | -0.0138 | -0.0265* | 0.0380 | 0.0266 | -0.0073 | -0.0098 | 0.0068 | | |
| | (0.0218) | (0.0079) | (0.0092) | (0.0158) | (0.0353) | (0.0229) | (0.0134) | (0.0110) | (0.0052) | | |
| Size | -0.0158*** | -0.0002 | -0.0284*** | 0.0129*** | 0.0179*** | -0.0223*** | -0.0055*** | -0.0007 | -0.0040*** | | |
| | (0.0014) | (0.0004) | (0.0012) | (0.0005) | (0.0022) | (0.0020) | (0.0007) | (0.0004) | (0.0003) | | |
| N | 91,297 | 91,297 | 91,297 | 91,297 | 99,644 | 100,082 | 87,167 | 87,554 | 99,281 | | |
| Firm FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | | |
| Year FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | | |
| R ² | 0.035 | 0.052 | 0.082 | 0.027 | 0.098 | 0.027 | 0.023 | 0.020 | 0.015 | | |

Table 6: Cash Constraints.

The table reports results from panel regressions relating firms' corporate policies with acquirers' type and the cash profile of rivals (Panel A) and of firms themselves (Panel B). *Low Cash* (Panel A) is computed as an intensity and it is the percentage of rivals that have low cash, where firms with low cash are the ones in the bottom tercile of the cash over assets distribution for each industry and year. *Own Low Cash* (Panel B) is an indicator variable equal to one if the firm is in the bottom tercile of the cash over assets distribution in its industry for a given year. Cash variables are then interacted with acquirers' type variables. Variables are defined in Appendix B. All the regressions have firm and year fixed effects; standard errors are clustered at industry level. Coefficients denoted with *, **, *** are significant at the 1%, 5% and 10% level, respectively.

| Panel A: Rivals | | | | | | | | | | | |
|-------------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|--|--|
| | Total Investments | Capex | R&D | Acquisitions | Leverage | Cash | Payout | Repurchases | Dividends | | |
| Acquired | 0.0149*** (0.0053) | 0.0006 (0.0018) | 0.0017 (0.0032) | 0.0119*** (0.0030) | -0.0061 (0.0067) | -0.0140** (0.0060) | -0.0033 (0.0026) | -0.0031 (0.0019) | 0.0003 (0.0013) | | |
| PE | 0.0138 (0.0141) | -0.0084* (0.0047) | 0.0095 (0.0067) | 0.0089 (0.0093) | 0.0549*** (0.0192) | -0.0119 (0.0154) | 0.0100 (0.0083) | 0.0083 (0.0067) | -0.0013 (0.0030) | | |
| Low Cash | -0.0017 (0.0014) | -0.0007 (0.0006) | -0.0017** (0.0007) | 0.0007 (0.0009) | 0.0129*** (0.0025) | -0.0143*** (0.0019) | -0.0010 (0.0009) | 0.0001 (0.0006) | -0.0009** (0.0004) | | |
| Acquired Low Cash | 0.0034 (0.0082) | -0.0012 (0.0030) | -0.0047 (0.0040) | 0.0083 (0.0055) | 0.0182 (0.0115) | 0.0171* (0.0088) | 0.0007 (0.0043) | 0.0008 (0.0033) | -0.0003 (0.0019) | | |
| PE Low Cash | -0.0485** (0.0207) | 0.0055 (0.0077) | -0.0070 (0.0088) | -0.0419*** (0.0149) | 0.0105 (0.0324) | -0.0040 (0.0247) | 0.0071 (0.0132) | 0.0033 (0.0104) | 0.0032 (0.0049) | | |
| Size | -0.0160*** (0.0014) | -0.0002 (0.0004) | -0.0284*** (0.0012) | 0.0128*** (0.0005) | 0.0197*** (0.0024) | -0.0226*** (0.0020) | -0.0057*** (0.0007) | -0.0008* (0.0004) | -0.0040*** (0.0003) | | |
| N | 91,470 | 91,470 | 91,470 | 91,470 | 99,827 | 100,265 | 87,334 | 87,722 | 99,463 | | |
| Firm FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | | |
| Year FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | | |
| R ² | 0.031 | 0.051 | 0.082 | 0.024 | 0.037 | 0.026 | 0.021 | 0.018 | 0.015 | | |
| Panel B: Own | | | | | | | | | | | |
| | Total Investments | Capex | R&D | Acquisitions | Leverage | Cash | Payout | Repurchases | Dividends | | |
| Acquired | 0.0196*** (0.0052) | 0.0036** (0.0018) | 0.0011 (0.0031) | 0.0138*** (0.0030) | -0.0020 (0.0066) | -0.0078 (0.0059) | -0.0038 (0.0027) | -0.0038* (0.0020) | 0.0005 (0.0013) | | |
| PE | -0.0065 (0.0139) | -0.0109** (0.0048) | 0.0054 (0.0066) | -0.0002 (0.0092) | 0.0314 (0.0192) | -0.0195 (0.0170) | 0.0117 (0.0078) | 0.0101* (0.0061) | -0.0018 (0.0030) | | |
| Own Low Cash | -0.0124*** (0.0010) | -0.0029*** (0.0004) | -0.0015** (0.0006) | -0.0068*** (0.0006) | 0.0204*** (0.0018) | -0.0319*** (0.0014) | -0.0034*** (0.0006) | -0.0018*** (0.0004) | -0.0011*** (0.0002) | | |
| Own Low Cash x Acquired | -0.0105 (0.0079) | -0.0096*** (0.0028) | -0.0029 (0.0039) | 0.0023 (0.0052) | 0.0057 (0.0109) | -0.0006 (0.0082) | 0.0020 (0.0030) | 0.0028 (0.0030) | -0.0007 (0.0018) | | |
| Own Low Cash x PE | 0.0111 (0.0211) | 0.0124 (0.0080) | 0.0046 (0.0084) | -0.0149 (0.0147) | 0.0775** (0.0323) | 0.0185 (0.0207) | 0.0025 (0.0134) | -0.0016 (0.0111) | 0.0044 (0.0050) | | |
| Size | -0.0156*** (0.0014) | -0.0001 (0.0004) | -0.0284*** (0.0012) | 0.0131*** (0.0005) | 0.0189*** (0.0024) | -0.0213*** (0.0020) | -0.0055*** (0.0007) | -0.0007 (0.0004) | -0.0039*** (0.0003) | | |
| N | 91,297 | 91,297 | 91,297 | 91,297 | 99,644 | 100,082 | 87,167 | 87,554 | 99,281 | | |
| Firm FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | | |
| Year FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | | |
| R ² | 0.034 | 0.053 | 0.082 | 0.026 | 0.040 | 0.050 | 0.022 | 0.018 | 0.016 | | |

Table 7: Performance, Risk and Survival.

The table reports results of panel regressions for market and operating performance measures (Panel A) and for risk (Panel B) depending on acquirer's type and market share. Panel C reports results for linear probability models, which estimate the probability of being acquired and the probability of going bankrupt. Probabilities are computed in the year after the one considered. *Acquisition Probability* is a dummy variable equal to one if the firm is acquired in the year following the one considered. *Bankruptcy Probability* is a dummy variable equal to one if the firm goes bankrupt in the year following the one considered. Variables are defined in Appendix B. Coefficients denoted with *, **, *** are significant at the 1%, 5% and 10% level, respectively.

| Panel A: Performance | | | | |
|-------------------------------|-------------------------|------------------------|------------------------|------------------------|
| | Rivals | | Own | |
| | Excess Return | ROA | Excess Return | ROA |
| Acquired | -0.0276 (0.0271) | -0.0007 (0.0057) | -0.0166 (0.0278) | -0.0025 (0.0058) |
| PE | 0.1031 (0.0729) | -0.0229 (0.0145) | 0.0756 (0.0746) | -0.0196 (0.0144) |
| Market Share | 0.0249 (0.0533) | -0.0372** (0.0163) | 1.5734*** (0.3349) | -1.3683*** (0.1207) |
| Acquired Market Share | 0.4336 (0.3914) | -0.0594 (0.0738) | -0.0516 (0.8345) | -0.0456 (0.1413) |
| PE Market Share | -2.6075* (1.4125) | 0.0709 (0.2243) | -2.2647 (2.7797) | -0.0572 (0.4806) |
| N | 86,411 | 96,375 | 86,213 | 96,066 |
| Firm FE | YES | YES | YES | YES |
| Year FE | YES | YES | YES | YES |
| R ² | 0.036 | 0.071 | 0.036 | 0.076 |
| Panel B: Return Volatility | | | | |
| | Rivals | Own | | |
| Acquired | -0.0005 (0.0006) | -0.0005 (0.0006) | | |
| PE | -0.0045*** (0.0017) | -0.0052*** (0.0017) | | |
| Market Share | 0.0005 (0.0016) | | | |
| Acquired Market Share | 0.0025 (0.0093) | | | |
| PE Market Share | 0.0084 (0.0427) | | | |
| Own Market Share | | 0.0828*** (0.0116) | | |
| Own Market Share x Acquired | | -0.0029 (0.0216) | | |
| Own Market Share x PE | | 0.1385** (0.0571) | | |
| Size | -0.0047*** (0.0002) | -0.0049*** (0.0002) | | |
| N | 99,256 | 98,923 | | |
| Firm FE | YES | YES | | |
| Year FE | YES | YES | | |
| R ² | 0.306 | 0.308 | | |
| Panel C: Survival Probability | | | | |
| | Acquisition Probability | | Bankruptcy Probability | |
| Acquired | 0.0133* (0.0078) | 0.0132* (0.0079) | -0.0012 (0.0018) | -0.0022 (0.0018) |
| PE | 0.0038 (0.0206) | 0.0099 (0.0207) | 0.0092 (0.0085) | 0.0096 (0.0079) |
| Market Share | 0.0406*** (0.0157) | | 0.0055 (0.0052) | |
| Acquired Market Share | -0.1040 (0.1028) | | -0.0862*** (0.0315) | |
| PE Market Share | -0.0523 (0.4984) | | 0.0270 (0.1104) | |
| Own Market Share | | -0.0695 (0.0810) | | 0.0269 (0.0257) |
| Own Market Share x Acquired | | -0.3498 (0.2237) | | -0.0962 (0.0600) |
| Own Market Share x PE | | -1.0736* (0.5546) | | 0.0576 (0.2524) |
| Size | -0.0043*** (0.0010) | -0.0040*** (0.0010) | -0.0009** (0.0004) | -0.0010** (0.0004) |
| N | 100,296 | 99,953 | | |
| Firm FE | YES | YES | YES | YES |
| Year FE | YES | YES | YES | YES |
| R ² | 0.022 | 0.022 | | |

Table 8: Horizontal vs Non-horizontal Acquisitions.

The table investigates the influence of horizontal and non-horizontal acquisitions on firms' corporate policies. *No Horizontal* is the ratio of non horizontal acquisitions and the total number of rival, where acquisitions are defined as horizontal if they involve firms belonging to the same industry according to Fama-French 49 industries classification. Variables are defined in Appendix B. All the regressions have firm and year fixed effects; standard errors are clustered at industry level. Coefficients denoted with *, **, *** are significant at the 1%, 5% and 10% level, respectively.

| | Total Investments | Capex | R&D | Acquisitions | Leverage | Cash | Payout | Repurchases | Dividends |
|---------------|------------------------|----------------------|------------------------|-----------------------|-----------------------|------------------------|------------------------|----------------------|------------------------|
| Acquired | 0.0092* (0.0052) | -0.0006 (0.0017) | 0.0003 (0.0030) | 0.0084** (0.0033) | 0.0050 (0.0067) | -0.0070 (0.0059) | -0.0023 (0.0027) | -0.0013 (0.0020) | -0.0004 (0.0012) |
| No Horizontal | 0.0173** (0.0084) | 0.0021 (0.0029) | -0.0004 (0.0046) | 0.0159*** (0.0052) | -0.0122 (0.0106) | -0.0030 (0.0093) | -0.0018 (0.0041) | -0.0039 (0.0030) | 0.0015 (0.0021) |
| PE | -0.0130 (0.0117) | -0.0078* (0.0042) | 0.0073 (0.0054) | -0.0148* (0.0079) | 0.0656*** (0.0169) | -0.0114 (0.0135) | 0.0135** (0.0069) | 0.0118** (0.0054) | -0.0011 (0.0027) |
| Size | -0.0160*** (0.0014) | -0.0002 (0.0004) | -0.0284*** (0.0012) | 0.0128*** (0.0005) | 0.0198*** (0.0024) | -0.0227*** (0.0020) | -0.0057*** (0.0007) | -0.0008* (0.0004) | -0.0040*** (0.0003) |
| N | 91,470 | 91,470 | 91,470 | 91,470 | 99,827 | 100,265 | 87,334 | 87,722 | 99,463 |
| Firm FE | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| Year FE | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| R^2 | 0.031 | 0.051 | 0.082 | 0.025 | 0.036 | 0.024 | 0.021 | 0.018 | 0.015 |

Table 9: Effect on Competition.

The table reports results from panel regressions relating competitive threats to acquirer type and rivals' and firms' market share. Variables are defined in Appendix B. All the regressions have firm and year fixed effects; standard errors are clustered at industry level. Coefficients denoted with *, **, *** are significant at the 1%, 5% and 10% level, respectively.

| | Fluidity | Fluidity | Fluidity |
|-----------------------------|------------------------|------------------------|------------------------|
| Acquired | 0.1104 (0.0678) | 0.1298* (0.0731) | 0.1183 (0.0727) |
| PE | -0.6541*** (0.1759) | -0.6966*** (0.1948) | -0.7341*** (0.1920) |
| Market Share | | 0.2069 (0.3129) | |
| Acquired Market Share | | -1.0389 (1.2175) | |
| PE Market Share | | 2.8942 (5.5464) | |
| Own Market Share | | | -7.9499*** (2.7589) |
| Own Market Share x Acquired | | | -3.1593 (3.5265) |
| Own Market Share x PE | | | 15.0041 (12.4282) |
| Size | 0.2574*** (0.0273) | 0.2568*** (0.0274) | 0.2700*** (0.0276) |
| N | 87,899 | 87,899 | 87,603 |
| Firm FE | YES | YES | YES |
| Year FE | YES | YES | YES |
| R^2 | 0.159 | 0.159 | 0.160 |

Table 10: Market Cap-Weighted Rivals.

The table reports results from panel regressions explaining firms' corporate policies on the basis of the type of acquirers, rivals' (Panel A) and firms' (Panel B) market share. Rivals are weighted on the basis of their market capitalization as of December of the year when they are selected as rivals. Variables are defined in Appendix B. All the regressions have firm and year fixed effects; standard errors are clustered at industry level. Coefficients denoted with *, **, *** are significant at the 1%, 5% and 10% level, respectively.

| Panel A: Rivals | | | | | | | | | | | |
|-----------------------|------------------------|-----------------------|------------------------|-----------------------|-----------------------|------------------------|------------------------|-----------------------|------------------------|--|--|
| | Total Investments | Capex | R&D | Acquisitions | Leverage | Cash | Payout | Repurchases | Dividends | | |
| Acquired | 0.0052 (0.0041) | -0.0017 (0.0013) | -0.0023 (0.0025) | 0.0089*** (0.0023) | -0.0027 (0.0052) | -0.0077* (0.0044) | -0.0001 (0.0019) | -0.0004 (0.0014) | 0.0001 (0.0010) | | |
| PE | 0.0023 (0.0139) | -0.0096** (0.0040) | 0.0079 (0.0076) | 0.0020 (0.0088) | 0.0196 (0.0178) | 0.0001 (0.0159) | 0.0016 (0.0064) | -0.0000 (0.0050) | 0.0002 (0.0027) | | |
| Market Share | -0.0192 (0.0195) | 0.0005 (0.0086) | 0.0122 (0.0108) | -0.0299** (0.0121) | 0.0543 (0.0377) | -0.0661** (0.0287) | 0.0356*** (0.0118) | 0.0248*** (0.0091) | 0.0111** (0.0049) | | |
| Acquired Market share | 0.0831 (0.1790) | 0.0016 (0.0681) | 0.0703 (0.0742) | 0.0214 (0.1180) | 0.0265 (0.2264) | 0.1865 (0.1426) | -0.0902 (0.0730) | -0.0654 (0.0580) | -0.0031 (0.0345) | | |
| PE Market Share | -1.3126 (0.8748) | 0.4879 (0.3861) | -0.3099 (0.4079) | -1.3968** (0.6470) | 0.4980 (1.7383) | -0.4273 (0.7971) | 1.6733** (0.7176) | 1.5165*** (0.5848) | 0.0224 (0.1732) | | |
| Size | -0.0160*** (0.0014) | -0.0002 (0.0004) | -0.0284*** (0.0012) | 0.0128*** (0.0005) | 0.0198*** (0.0024) | -0.0227*** (0.0020) | -0.0057*** (0.0007) | -0.0008* (0.0004) | -0.0040*** (0.0003) | | |
| N | 91,470 | 91,470 | 91,470 | 91,470 | 99,827 | 100,265 | 87,334 | 87,722 | 99,463 | | |
| Firm FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | | |
| Year FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | | |
| R ² | 0.031 | 0.051 | 0.082 | 0.024 | 0.036 | 0.024 | 0.021 | 0.018 | 0.015 | | |

| Panel B: Own | | | | | | | | | | | |
|-----------------------------|------------------------|----------------------|------------------------|------------------------|-----------------------|------------------------|------------------------|----------------------|------------------------|--|--|
| | Total Investments | Capex | R&D | Acquisitions | Leverage | Cash | Payout | Repurchases | Dividends | | |
| Acquired | 0.0048 (0.0037) | -0.0014 (0.0012) | -0.0020 (0.0022) | 0.0081*** (0.0021) | -0.0025 (0.0047) | -0.0049 (0.0040) | -0.0011 (0.0017) | -0.0012 (0.0013) | 0.0006 (0.0009) | | |
| PE | -0.0038 (0.0120) | -0.0078* (0.0040) | 0.0064 (0.0059) | -0.0042 (0.0077) | 0.0190 (0.0166) | -0.0042 (0.0133) | 0.0120* (0.0063) | 0.0098* (0.0051) | -0.0005 (0.0023) | | |
| Own Market Share | -0.0685* (0.0364) | -0.0313* (0.0186) | 0.1565*** (0.0280) | -0.1798*** (0.0369) | -0.0580 (0.0782) | 0.0608 (0.0529) | 0.0784** (0.0356) | 0.0347 (0.0269) | 0.0380*** (0.0145) | | |
| Own Market Share x Acquired | 0.1834 (0.1179) | -0.0416 (0.0306) | 0.0562* (0.0336) | 0.1610 (0.1017) | -0.0798 (0.1105) | -0.0754 (0.0718) | 0.0119 (0.0404) | 0.0237 (0.0391) | 0.0075 (0.0231) | | |
| Own Market Share x PE | -0.3957 (0.5749) | 0.2661* (0.1377) | -0.1313 (0.1525) | -0.4467 (0.4002) | 0.7027 (0.7151) | 0.3339 (0.2972) | -0.0066 (0.2905) | 0.1992 (0.3929) | -0.0221 (0.0836) | | |
| Size | -0.0160*** (0.0015) | -0.0002 (0.0004) | -0.0290*** (0.0012) | 0.0133*** (0.0005) | 0.0199*** (0.0024) | -0.0226*** (0.0021) | -0.0059*** (0.0007) | -0.0008* (0.0004) | -0.0043*** (0.0004) | | |
| N | 91,160 | 91,160 | 91,160 | 91,160 | 99,484 | 99,922 | 87,032 | 83,851 | 90,754 | | |
| Firm FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | | |
| Year FE | YES | YES | YES | YES | YES | YES | YES | YES | YES | | |
| R ² | 0.031 | 0.051 | 0.083 | 0.026 | 0.036 | 0.024 | 0.021 | 0.017 | 0.017 | | |

Appendix A: Sample Construction

Table: Sample Criteria

The table specifies the criteria that have been used to create the sample of corporate acquisitions, with number of observations at each step. Data are retrieved from Refinitiv.

| | N |
|--|---------|
| Deals announced between 1997 and 2019 | 958,183 |
| Target is from the USA | 247,523 |
| Target is a public company | 36,615 |
| Exclude targets with SIC codes from 6000 to 6999 | 26,474 |
| Deal value of at least \$1 million | 21,817 |
| Acquirer owns at least 50% of target shares after transaction | 6,174 |
| Deals status is completed | 6,118 |
| Acquirer owns less than 25% of target shares as of 6 months before the deal announcement | 5,651 |
| Exclude bankruptcies and restructurings | 5,386 |
| Targets that are in Compustat | 4,057 |
| Targets that are in HP dataset | 3,803 |
| Exclude MBOs, spin-offs, shares repurchases, stock splits and transactions funded by individuals | 3,441 |

Appendix B: Variable Definitions

| Dependent Variables | |
|--------------------------------|--|
| <i>Acquisition Probability</i> | Binary variable equal to one if the sample firm is acquired within one year of the year considered. |
| <i>Acquisitions</i> | Acquisitions divided by total assets. |
| <i>Bankruptcy Probability</i> | Binary variable equal to one if the sample firm goes bankrupt within one year of the year considered. |
| <i>Capex</i> | Capital expenditures divided by total assets. |
| <i>Cash</i> | Cash divided by total assets. |
| <i>Dividends</i> | Dividends divided by total assets. |
| <i>Excess Return</i> | Excess return over Fama and French 25 research portfolios in the 12 months following the event, computed according to Denis and Sibilkov (2010). |
| <i>Fluidity</i> | It takes the data from Hoberg and Phillips (2016), as updates up to 2019. It measures how firm product market changes on the basis of product market vocabulary. |
| <i>Leverage</i> | Sum of short-run debt and long-run debt, divided by total assets. |
| <i>Payout</i> | Sum of dividends and shares repurchases, divided by total assets. |
| <i>R&D</i> | Research and development expenditures divided by total assets. |
| <i>Repurchases</i> | Shares repurchases divided by total assets. |
| <i>Return Volatility</i> | Annual standard deviation of stock returns computed starting from daily data. |
| <i>ROA</i> | EBITDA divided by total assets. |
| <i>Total Investments</i> | Sum of capital expenditures, research and development expenditures and acquisitions, divided by total assets. |

Independent Variables

| | |
|------------------------------------|---|
| <i>Acquired</i> | It is the ratio between the number of acquired rivals and the total number of rivals (maximum of 5) in a given year and industry. |
| <i>Acquired High Debt</i> | It is the percentage of acquired rivals that have high debt. |
| <i>Acquired Low Cash</i> | It is the percentage of acquired rivals that have low cash. |
| <i>Acquired Market Share</i> | It is the market share of acquired rivals. |
| <i>PE</i> | It is the ratio of the number of PE acquired rivals and the total number of rivals (maximum of 5) in a given year and industry. |
| <i>PE High Debt</i> | It is the percentage of rivals acquired by PE funds that have high debt. |
| <i>PE Low Cash</i> | It is the percentage of rivals acquired by PE funds that have low cash. |
| <i>PE Market Share</i> | It is the market share of PE acquired rivals. |
| <i>Low Cash</i> | It is the ratio between the number of rivals that have low cash and the total number of rivals (maximum of 5) in a given year and industry. Firms with low cash are firms that are in the bottom tercile of the cash over assets distribution in a given year and industry. |
| <i>High Debt</i> | It is the ratio between the number of rivals that have low cash and the total number of rivals (maximum of 5) in a given year and industry. Firms with low cash are firms that are in the bottom tercile of the cash over assets distribution in a given year and industry. |
| <i>Market Share</i> | It is the sum of rivals' market share, where market share of each rival firm is defined as its sales over industry sales. |
| <i>No Horizontal</i> | It is the ratio between the number of non horizontal acquisitions and the total number of rivals (maximum 5) in a given year and industry. Acquisitions are considered as horizontal if they involve firms belonging to the same industry. |
| <i>Own Low Cash</i> | It is a dummy variable equal to one if the firm has low cash, that is if it is in the bottom tercile of the cash over assets distribution in a given year and industry. |
| <i>Own Low Cash x Acquired</i> | It is the interaction between <i>Own Leader Cash</i> and <i>Acquired</i> , thus being the percentage of acquired rivals whose firm has low cash. |
| <i>Own Low Cash x PE</i> | It is the interaction between <i>Own Leader Cash</i> and <i>PE</i> , thus being the percentage of PE acquired rivals whose firm has low cash. |
| <i>Own High Debt</i> | It is a dummy variable equal to one if the firm has high debt, that is if it is in the top tercile of debt over assets distribution in a given year and industry. |
| <i>Own High Debt x Acquired</i> | It is the interaction between <i>Own High Debt</i> and <i>Acquired</i> , thus being the percentage of acquired rivals whose firm has high debt. |
| <i>Own High Debt x PE</i> | It is the interaction between <i>Own Leader Leverage</i> and <i>PE</i> , thus being the percentage of PE acquired rivals whose firm has high debt. |
| <i>Own Market Share</i> | It is the sample firm's market share, where market share is defined as sales over industry sales. |
| <i>Own Market Share x Acquired</i> | It is the interaction between <i>Own Market Share</i> and <i>Acquired</i> , thus being the market share of sample firms with at least one acquired rival. |
| <i>Own Market Share x PE</i> | It is the interaction between <i>Own Market Share</i> and <i>PE</i> , thus being the market share of sample firms with at least one PE acquired rival. |
| <i>Size</i> | It is the logarithm of total assets. |
