

The Role of Institutional Investors in Public-to-Private Transactions

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Abstract

In Italy, as in many other European countries, listed firms have gone dark through controlling shareholder-initiated tender offers. We find that the presence of institutional investors, especially when foreign, helps minority shareholders receive a higher takeover premium and reduces the likelihood of a successful bid. We explore the effect of a number of hitherto unexplored factors on the takeover premium and find that shareholder agreements facilitate the public-to-private acquisition. Other factors, such as a threat to merge the target if the bid fails or external validation of the offer price have no impact on either the likelihood of delisting or the premium paid by the bidder.

Keywords: Public-to-Private Transactions; Delisting; Family Firms; Tender Offer

JEL Classifications: G32, G34

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1. Introduction

In recent years, extensive evidence has accrued regarding the increasing importance of institutional investors in corporate decisions. Unlike individuals, institutional investors tend to own large equity stakes and have a stronger incentive to collect firm-specific information and monitor management. Thanks to the combination of more time, financial training and a fiduciary responsibility towards their own clients, institutional investors play a significant and active role in the corporate governance of firms (Kumar and Lee, 2006). If they are dissatisfied with a firm's performance or disagree with the board of directors' decisions, financial institutions can exert pressure by selling their holdings or proactively engaging with management via activist strategies.¹

Clearly, the presence of institutional investors does not guarantee activism effectiveness. If the institutional investor holds a relatively small stake in the company (which is likely for diversified mutual funds), the incentive to undertake proactive monitoring may be negligible. At the other extreme, if the institutional investor has a conflict of interest with management or the controlling shareholder, activism is less likely to be desirable or effective because of potential collusionary behavior.

Prior literature has investigated several issues associated with the presence of institutional investors, such as determining the salient firm characteristics that are most attractive to financial institutions (Smith, 1996; Gompers and Metrick, 2001); the effect of institutional investors on firm performance (Brav *et al.*, 2008; Clifford, 2008; Elyasiani and Jia, 2010; Ferreira and Matos, 2008, Cornett *et al.*, 2007; Ruiz-Mallorquí and Santana-Martín, 2011); their impact on

¹ A large body of work has examined the effectiveness of exit versus activism strategies. See Del Guercio and Hawkins (1999), Gillan and Starks (2000), English *et al.* (2004), Nelson (2006), Brav *et al.* (2008), Del Guercio *et al.* (2008), Kim *et al.* (2009), Lee and Park (2009), Greenwood and Schor (2009), Klein and Zur (2009), Becht *et al.* (2010), Cheng *et al.* (2010), and Ertimur *et al.* (2010) for more information.

the quality of a firm's corporate governance (Ferreira and Matos, 2008; Chung and Zhang, 2011); and the role played by financial institutions as facilitators of cross-border M&As (Ferreira *et al.*, 2010).

With few exceptions, most of the research in this area comes from the US and the UK, and little attention has been devoted to other countries or to the actions of institutional investors during important corporate events. We contribute to the existing literature by investigating how institutional investors affect the outcome of public-to-private transactions in an empirical setting where financial institutions can be the difference between a successful and failed bid. Our dataset comprises the totality of all Italian stock market delisting attempts (both successful and unsuccessful) in the 1998-2012 period.

Italy is a good setting to test the role of institutional investors in going dark transactions. The Italian corporate environment is characterized by firms with highly concentrated ownership structures and/or the presence of an active majority shareholder (Faccio and Lang, 2002). The regulatory environment in Italy mandates that minority investors lose all decision rights when 90 percent of a company's existing shares are held by one owner. This means that there is an ownership window where minority shareholders have the opportunity and power to extract value from potential bidders by refusing to tender their shares for sale. In such circumstances, institutional investors have the power (as blockholders) to act in minority shareholder interests by pushing up the bid premium or rejecting the bid. This can actively constrain expropriation by the controlling shareholder (Pagano and Röell, 1998), and increase firm value (Maury and Pajuste, 2005).

An example of the role of institutional investors in public-to-private (PTP) transactions is provided by Gewiss SpA (a medium cap firm listed on the Italian Exchange since 1988). On May 28th, 2010, the majority shareholder, who already controlled 75.34 percent of the shares, launched

a tender offer with the sole purpose to delist the company. The offer was made at €4.20 per share (embedding a 28 percent premium over the average price for one month before the announcement). At the time of the offer, the second shareholder (with a holding of 7.7 percent) was the US investment management fund, First Eagle Investment Management LLC. First Eagle refused to tender its shares citing an unacceptably low offer price. Because of this, the holdings of the bidder did not reach the required 90 percent threshold and the delisting attempt failed. Eleven months later, the same controlling shareholder launched a second successful tender offer at a higher price (€5.10 per share) for which First Eagle had preemptively agreed to tender its stake. The amount of shares owned by the controlling shareholder reached 95.65 percent and all remaining shareholders were frozen out (that is, forced to sell the remaining shares) prior to delisting.

Consistent with the Gewiss case above, we find new evidence of the role played by institutional investors during tender offers where the purpose of the bid is to delist the firm. We show that institutional investors can increase the probability of bid failure (for instance, by not tendering their shares) or improve the premium paid by the controlling owner. This allows minority shareholders to be more fairly compensated for the fundamental value of their tendered shares. Consistent with existing literature (Ferreira *et al.*, 2010 and Aggarwal *et al.*, 2011), we find these effects are more significant when investors are foreign or activist institutions.

We also contribute to the literature on public-to-private (PTP) transactions. Most research on PTPs originated from the acquisition wave that occurred in the US during the 1980s and late 1990s. Generally, target firms were acquired through leveraged buy-outs where the firm's delisting was simply a technical effect of the acquisition. Several scholars have since tried to conceptualize the possible rationale for PTP transactions and have proposed explanations based on the realignment of interests between shareholders and managers (Kaplan, 1989a); free cash flow (Jensen, 1986); tax shield gains (Kaplan, 1989b); target undervaluation (Lowenstein, 1985);

and the improvement of corporate governance (Admati *et al.*, 1994; Maug 1998). Unfortunately, these explanations are not particularly appropriate in countries where highly concentrated ownership structures are dominant.

In continental Europe, a tender offer accompanied by a freeze-out of minority shareholders is the *modus operandi* of bidders who wish to take a firm private. However, since control is usually already in the hands of the dominant shareholder, there is no need to realign managerial incentives as suggested by Kaplan (1989a). In addition, controlling owners can use financial leverage to manage the agency costs of free cash flow and tax shields. From all the explanations proposed for why firms delist, only undervaluation and corporate governance are likely to be salient factors in continental Europe. To the best of our knowledge, this paper is the first to consider these issues in an empirical setting.

The paper is organized as follows. The next section presents the theoretical framework. Section 3 provides an overview of the Italian corporate environment and the European takeover directive. In section 4 we describe the research methodology. Section 5 presents our main findings and Section 6 concludes the study.

2. Theoretical Framework

A considerable amount of research has investigated the impact of financial institutions on corporate behavior. Although institutions are external blockholders and active participants in the financial markets, there is little empirical consensus on whether they are effective independent monitors of managers. Institutional investors have an incentive to play an active

role in monitoring corporate management since they have—relative to retail investors—better skills, enhanced interest in the firm (due to a larger ownership stake) and more ways to impede harmful actions to minority shareholders' interests. Indeed, if institutional investors are not satisfied with the firm's performance or managerial behavior, they can pressure the board by using their voting power or selling their holdings.

Institutional investors have been shown to approve management proposals even when they are detrimental to shareholder value (Bigelli and Mengoli, 2011; Brickley *et al.*, 1988; Davis and Kim, 2007). Some studies (Black, 1998; Karpoff, 2001) show evidence of institutional investors putting little effort into the monitoring process and find no association between activism and improved operating performance. Other work suggests that even when firms are underperforming, it is difficult for blockholder institutions to forcibly remove corporate executives (Black, 1998; Romano 2001; Bebchuck, 2007).

In contrast, Brav *et al.* (2008), Clifford (2008) and Ferreira and Matos (2008) report a positive relationship between institutional holdings, operating performance and firm value. Klein and Zur (2009) and Clifford (2008) document a positive market reaction to the announcement of new activist investor interest in a firm, primarily because firm performance tends to improve when it is targeted by an activist institution (Clifford, 2008). However, Greenwood and Schor (2009) find that the market reaction to an activism event is not due to any expected improvement in the target firm's performance but to an increased likelihood that the firm will be taken over.

Whether they are overtly activist or not, financial institutions have been shown to positively affect the quality of a firm's corporate governance and managerial performance (Parrino *et al.*, 2003; Ferreira and Matos, 2008; Aggarwal *et al.*, 2011; Chung and Zhang, 2011). Moreover, Aggarwal *et al.* (2011) document that foreign institutions are more successful than their domestic counterparts in improving a firm's governance quality, and this is especially true in countries

with weak investor protection. In fact, whilst domestic institutions are more likely to have business ties with local corporations, foreign institutions are more independent and less compelled to be in agreement with management.

Consistent with their relevance in constraining the activities of managers, financial institutions can also play an important role in engaging with other dominant shareholders. Gomes and Novaes (2006) and Bennedsen and Wolfenzon (2000) develop theoretical models which predict that large investors (who will commonly be financial institutions) have an incentive to constrain the self-serving agendas of controlling shareholders. Other research has shown that large non-controlling shareholders can enhance firm value via their monitoring activities of the largest shareholder (see Pagano and Roell, 1998; Maury and Pajuste, 2005; Laeven and Levine, 2008; and Attig *et al.*, 2009).

To date, no research has considered how institutional investors can affect the success or cost of public-to-private transactions. Many reasons have been given for why an investor would attempt to delist a firm. These include free cash flow (Lehn and Poulsen, 1989; Opler and Titman, 1993); misaligned agency relationships between managers and shareholders (Halpern *et al.*, 1999; Renneboog *et al.*, 2007) and between shareholders and bondholders (Baran and King, 2010); unexploited tax shields (Halpern *et al.*, 1999; Renneboog *et al.*, 2007); stock price undervaluation (Halpern *et al.*, 1999; Renneboog *et al.*, 2007); and poor corporate governance (Weir *et al.*, 2005a; 2005b).

Traditional explanations for PTP transactions are less applicable to countries with concentrated ownership structure since firms are almost always delisted via tender offers promoted by the controlling shareholder. In spite of these fundamental differences, research on countries outside of the UK and US has been very sparse. Andres *et al.* (2007) report a 24% cumulative abnormal return (CAR) around the announcement of 115 European LBOs in the 1997-

2005 period. They find that the wealth effect is largely associated with a difference in the degree of minority shareholder protection: countries with poorer investor protection show a stronger market response to announcements of PTPs. Achleitner *et al.* (2013) investigate the motivation to acquire publicly listed firms by private equity funds in continental Europe and find that the presence of large shareholders decreases the likelihood of the firms being taken private. Croci and Del Giudice (2013) concentrate on European PTPs between 1997 and 2005 and find that, on average, there is no evidence that controlling shareholders exploit private information in taking their firm private.

The legal protection of minority shareholders is an important factor according to Thomsen and Vinten (2007). The authors show that the frequency of delistings is higher in countries with weaker legal investor protection and increases in response to the adoption of new corporate governance codes. They also find that delisted firms are undervalued, illiquid and slow-growing. More recently, Geranio and Zanotti (2010) study the market response to the announcement of a sample of continental European PTPs and provide evidence that small and undervalued firms experience wealth improvements, especially when the tender offer is launched by a family (as the controlling shareholder).

Building on the theoretical models of Gomes and Novaes (2006) and Bennedsen and Wolfenzon (2000), our central hypothesis is that financial institutions act to constrain the personal agendas of controlling shareholders. In the context of public-to-private transactions, this is manifested in actions that protect the interests of minority investors. The main avenue through which this can be achieved is via negotiation with the bidder to achieve an appropriate premium on the minority investor shares. This leads to our two testable hypotheses (expressed in alternate form):

H1a: The likelihood of a successful public-to-private bid is lower when a firm has institutional blockholders.

H2a: The premium paid in a successful public-to-private bid is higher when a firm has institutional blockholders.

3. Institutional background and sample construction

3.1. Institutional background

Since 1998 an Italian listed company can be taken private through a tender offer aimed to gather 90% of the existing shares. This is primarily because of a 10% minimum float requirement for stock exchange listing.² It follows that the most common way to take a firm private is by promoting a tender offer to all the minority shareholders in order to exceed the mandated 90% ownership level. When this threshold is not met, the company cannot be delisted and the bidder must launch another bid, typically at a higher price. When a 95% ownership threshold is surpassed, the bidder has the right to freeze-out minority investors at the same offer-price so that 100% ownership of the new private company can be achieved. When the amount of shares is between 90% and 95%, the bidder must either restore the minimum 10% float (within 90 days) or grant residual minority shareholders a second chance to sell their illiquid shares.

3.2 Sample construction

Our sample comprises all tender offers on the Italian Stock Exchange between July 1998 and June 2012 that had the express purpose to exceed the 90% ownership threshold. We began the

² A further regulatory requirement (UE takeover directive 25/2004) is that bidders who intend to delist a firm through exceeding the 90% ownership threshold must launch a mandatory bid on all outstanding shares at the highest trailing twelve month price.

sample period in 1998 to coincide with the introduction of new Italian regulation on takeovers and delistings (*Testo Unico della Finanza*, TUF). Detailed information on tender offers is collated from the actual offering documents (via the Italian financial markets regulator, CONSOB) or kindly provided to us by Mediobanca’s “Ricerche e Studi” division. Our sample of 85 observations comprises the population of all Italian public-to-private tender offers since the introduction of the new takeover regulation in 1998. It is worthwhile to note that during the same period, there were 178 initial public offerings in Italy and the number of listed Italian firms varied between 240 and 340.

Ownership information is taken from the Italian regulator CONSOB’s website. They report all shareholder stakes exceeding two percent of voting rights (the Italian threshold for mandatory filing to the regulator). We have further identified both foreign institutional investors and activist investors. An institution is defined as an activist if it is in the list of active investors reported by Becht *et al.* (2010), and adapted for the Italian market by Croci and Petrella (2012b). All other financial or accounting variables are taken from Datastream.

4. Results

4.1. Tender offers

Table 1 details the PTP transaction characteristics by year of tender offer. Over the sample period, the mean (median) deal value was about €267 (€98) million and the mean equity capital under offer was 37.38 percent of total shares. This implies that the mean (median) market capitalization of our sample firms at the offer price was €714 (€262) million. Out of a population of 85 tender offers, 72 resulted in the target firm delisting from the exchange. Of the remaining 13 instances, the 90% ownership threshold was not reached and the PTP attempt was unsuccessful.

[Please insert Table 1 here]

4.2. Comparative analysis of PTP Target Firms

Table 2 describes the characteristics of the target firms and compares them with a) the universe of Italian listed firms; and b) propensity score-matched firms (matched by size, voting rights of the largest shareholder and the dummy for financial firms). Firms that undergo a PTP bid tend to have a larger proportion of foreign and activist institutional investors in their ownership structure. However, given that all PTP bids in our sample are initiated by the controlling owner, it is perhaps not surprising that the voting rights of institutional investors in firms that receive a PTP tender offer (3.97%) are lower than the population of Italian firms (8.08%). Our propensity score matching ATT (Average Treatment effect if Treated) tests generally confirm the results from the overall population comparison.

In terms of corporate characteristics, we separate financial and non-financial firms in our descriptive analysis to reflect the fundamental structural differences between the sectors. Two significant differences between the sample and population are evident. First, target firms have lower leverage, irrespective of the sector they operate. Tender firms are also more efficient with higher returns on assets (6.33% *vs.* 3.91% for the non-financial sector population; and 3.90% *vs.* 1.22% for the financial sector population).

Taken together, industrial and financial target tender firms present an average market capitalization equal to €0.71 billion, a market-to-book equal to 1.82 and a yearly stock price volatility equal to 32.30% (significantly lower than other listed firms). The largest shareholders of PTP targets hold, on average, 62.62% of voting rights, a significantly higher stake than for other listed firms (47.47%). As a consequence, the percentage of free float is significantly lower for our sample (33.52%) than for other firms (43.41%). As would be expected from the largest shareholder

stake in tender firms, the second largest shareholder holds a lower average stake compared with the average holding in other firms (5.04% versus 9.91%).

ATT test results from the propensity score matching process are not as strong as our simple population comparison (last column of Table 2). However, we still detect significantly lower leverage levels (ATT = -11.77 for non-financial firms) and higher return on assets (ATT = 3.04 in non-financial firms) in the PTP tender sample. In addition, although the ATT results do not find any significant differences in largest ownership stake between treatment (tender offer targets) and non-treatment firms, we do detect significantly lower voting rights for the second largest shareholder (ATT = -5.89). This indirectly highlights the relatively more concentrated holdings of the controlling owner in firms that receive a tender offer.

From the offering prospectuses we observe (unreported in Table 2) that in 30% of our sample firms (19 instances) there exists a public agreement (i.e., explicit in the offering document) between some (or all the) relevant shareholders of the target company, which commit them to transfer their shares at the beginning of the offering period.³ In 39 deals (62% of the total) the bidder explicitly warns target firm's shareholders that it will push to merge the target with a private firm even if the tender offer is unsuccessful. In many cases the private firm is actually a special purpose vehicle created by the controlling shareholder with the sole objective of launching the tender offer. Given that a shareholder agreement and merger would forcibly lessen shareholder power, both of these strategies are an incentive to the target firm's shareholders to tender their shares. Finally, 44% of the deals (28 instances) include a fairness opinion issued by a third party (usually, an investment bank) deeming the offer price to be fair and appropriate.

³ By "relevant" we mean shareholders who hold 2% or more of the target firm's equity capital. Italian regulation (TUF) requires that equity holdings equal or greater than 2% of a listed company have to be disclosed to the Italian market authority (CONSOB).

[Please insert Table 2 here]

4.3. Institutional Holdings

Table 3 provides summary information on the level of institutional investor holdings in our sample of PTP target firms partitioned by the number of institutional investors. Of the 85 firms that received a tender offer, 46 (54.1 percent) had no institutional investor with holdings greater than 2 percent. Of the remaining firms, the number of blockholding (> 2 percent holdings) institutions ranged between 2 and 7. The majority of institutional investors are foreign domiciled (56 foreign *vs.* 25 domestic) and there was only a minority of activist investors (16 *vs.* 65).

Of the 17 firms with one institutional investor, the average holding is 4.99% of voting rights, foreign institutions hold an average of 2.71% of the shares, and activists 1.65%. The cumulative stake held by all institutional investors tends to grow with the number of investors in the ownership structure. When the number of investors is above or equal 5, their cumulative ownership must, by definition, exceed 10% of voting shares, which is enough to avoid a forced delisting, if all institutional investors refused to tender their shares.

[Please insert Table 3 here]

4.4. The Bid Premium

The premium paid by the bidder to the target firm's existing shareholders is computed as the natural logarithm of the ratio between the offer price and the share price a number of trading days preceding the tender offer announcement, which we label the anticipation window. Table 4 shows that both the mean and median bid premium is a positive function of the length of the anticipation window. The average premium equals 10.31% of the stock market price one day before the launch of the tender offer. This grows to 18.23% for a 30-day bid premium, which is

less than the 45% reported for UK PTP transactions (Weir *et al.*, 2005b), but similar to the 21.2% found for continental European PTPs (Geranio and Zanotti, 2010). In all anticipation windows, the bid premium is positive and statistically significant at the 5 per cent level.

Table 4 also reports the target firm's market-adjusted stock price performance, computed as the logarithmic return of the firm minus the logarithmic return of the market in the announcement windows [-31; -60], [-31; -90] and [-31; 360]. The firms' average market-adjusted performance over the three windows is slightly positive but not significantly different from zero.

[Please insert Table 4 here]

4.5. Likelihood of a Successful PTP Offer

We now consider the role of institutional investors in affecting the success of a PTP tender offer. A delisting attempt can only be successful if the 90 percent single ownership threshold is reached. This will trigger the sell-out or freeze-out options in Italian law to force minority investors to offload their holdings. Unsuccessful PTP offers are therefore those bids that result in less than 90 percent of the shares being held by the controlling owner.

In our empirical models we run a logit regression of the probability of bid success against a number of explanatory variables that have been shown to influence bid success in corporate acquisitions. We also address possible selection bias by running a two-stage (Heckman) model. In the first stage we estimate the probability of the largest shareholder launching a tender offer (not reported for brevity), and then use the inverse Mills ratio in the second stage (which was not significant) to minimize any biases from this source.

Results for the second stage are reported in Table 5. Model 1 does not include any of the variables related to institutional holdings, since the main goal is to address of effect of bid structure. The presence of a shareholder agreement to surrender shares positively affects the chances of a successful offer. In fact, the agreement directly and indirectly increases the number of shares in the hands of the bidder and reduces the percentage of shares to be bought. Quite surprisingly, the threat of a forced merger with another private firm does not seem to have any effect, probably because investors do not consider it a credible threat. In actuality, we see from the data that if the 90 percent ownership threshold is not reached, controlling shareholders prefer to launch a subsequent offer and take 100 percent of the company private rather than proceeding with a forced merger. The presence of a fairness opinion does not impact upon the probability of success of the offer. Finally, as would be expected, the probability of a successful PTP offer is positively associated with the magnitude of the bid premium and is statistically significant at the 5 percent level in most of our regressions.⁴

In Models (2) to (7) we directly investigate the role of institutional investors by including a number of ownership variables in the logistic regressions. The two main results from these regressions is the importance of foreign and activist institutional investors. When firms have an institutional shareholder, who is either a known activist or originates outside of Italy, the probability of a successful bid is significantly lower.

In conclusion, the probability of a successful tender offer that leads to delisting is positively associated with the presence of an agreement among blockholders, the magnitude of the premium offered, and the market to book ratio of the firm. There is also a greater chance of success when the target firm has no foreign or activist institutional holdings. In fact, consistent with our

⁴ In this set of regressions we use a 30-day premium (where day 0 is the tender offer announcement date). However, as a robustness check, we have also used different pre-announcement premium windows without any significant changes in the results.

predictions, we show that institutional investors, especially if foreign or activist, make it harder for controlling shareholders to delist their firm.

[Please insert Table 5 here]

4.6 Determinants of the PTP Bid Premium

We now investigate the determinants of the bid premium when a tender offer to delist is successful.⁵ Since the controlling shareholder will have 100 percent ownership of the firm and not be able to extract any further private benefits at the expense of minority shareholders (since there aren't any), we propose that the private benefits of control will be substantial. However, since the bidder must pay an average bid premium of 18.98%, the private benefits are shared between the controlling and the minority shareholders.

Ceteris paribus, the higher the bid premium, the larger the gain accruing to minority shareholders. We hypothesize that institutional investors, who are more skilled and informed than other retail investors, are better able to assess the fair value of a company and, consequently, they will oppose any delisting plan that does not properly compensate for the value of the tendered shares. We also believe that the opposition is stronger and more effective if carried out by foreign institutions, since there should be fewer business ties with the controlling shareholder.

Table 6 reports the OLS estimates of the bid premium as a function of firm characteristics (size, leverage, change in operating profit); stock price characteristics (past volatility and performance); the tender offer structure (fairness opinion, threat of a merger with a private

⁵ In this section, we only consider successful PTP bids. We omit unsuccessful offers because their inclusion would lead to a bias in our results coming from the exhibited association between bid success probability and bid premium size.

company, and existence of a shareholder agreement); ownership structure (ownership by the controlling shareholder, free float); and institutional investor holdings (foreign and domestic).

We intentionally do not include institutional ownership variables in Model (1) so we can understand the importance of our control variables. In subsequent models, we add different proxies of (foreign and domestic) institutional holdings in order to study the role of these types of investors.

From Table 6, it is perhaps surprising that our control variables have little power in predicting PTP bid premiums. The only variable that is consistently statistically significant across all our models is the stock price performance of the target prior to the bid. In each case poor stock price performance is associated with higher bid premiums. This is strongly suggestive of an underpricing motive in PTP delistings where the private benefits of control are large.⁶

Surprisingly, we find that neither the presence of a fairness opinion nor the threat of a merger with an unlisted firm is able to influence the success of a PTP bid. Taking the results in Table 5 and Table 6 together, it appears that shareholder agreements only impact upon the probability of bid success and not the bid premium. Merger threats have no significance at all.

Next, we incorporate the role of institutional ownership in determining the bid premium. By including cumulative institutional voting rights (model 2) we provide clear evidence of a positive association between premium size and institutional holdings. The positive coefficient indicates that, consistent with our hypothesis, the larger the institutional investor's stake in a firm, the higher the bid premium that must be offered.

⁶ We use a thirty-day window [-60 to -31 days] prior to the announcement because our dependent variable is the 30-day bid premium. As a robustness check, we have also used different performance windows (3, 6 and 12 months). Although, the effect of past stock price performance is still present for the 3-month window, it drops in importance for larger windows.

We next investigate whether an institutional investor's country of origin has any effect on the bid premium. In the previous section, we provided evidence that foreign funds were able to impede PTP delisting attempts. We argued that foreign institutions are more independent than their domestic counterparts and are consequently less likely to engage in collusion with other investors. This led to our proposition that foreign investors will attempt to extract as much value as possible from PTP bidders and this would result in a higher bid premium.

From models (4) to (6) in Table 6, it is clear that foreign institutional investors are associated with higher PTP bid premiums. This suggests that foreign institutional investors are especially effective in pressuring bidders to offer a larger premium, as illustrated in the Gewiss SpA case reported earlier. We also consider the impact of activist and non-activist funds on the PTP bid premium. Models (7) – (9) show that institutional investors are equally effective in maximising the PTP bid premium whether or not they are labeled as activist investors.

[Please insert Table 6 here]

4.7 CAR calculation

In our analysis we have used the premium offered as a measure of shareholder gain. This is because it is the effective price a bidder must pay to successfully delist the target firm. However, in the PTP literature (Andres *et al.*, 2007; Geranio and Zanotti, 2010), a measure frequently used is the cumulative abnormal return (CAR) around the offer announcement. Since the market price of the share generally aligns to the offer price, the correlation between bid premiums and CARs is expected to be extremely high. Clearly, CARs will be lower than bid premiums because they are market-adjusted whereas premiums are not.

As a robustness check of our results,⁷ we have computed CARs using two event windows, that is $[-30; +30]$ (spanning from -30 days to $+30$ days with respect to the to the announcement date) and $[-30; +1]$ (spanning from -30 days to $+1$ day with respect to the to the announcement date). The mean (median) $[-30; +30]$ CAR amounts to 18.2 (18.8) percent, in line with the literature on continental European PTPs (Geranio and Zanotti, 2010), whilst the mean (median) $[-30; +1]$ CAR is slightly lower at 17.1 (16.2) percent. Fortunately, the premium offered with either the $[-30; +30]$ -CAR or the $[-30; +1]$ -CAR in Table 6 does not affect our results in any appreciable manner.⁸

6. Conclusions

In this paper, we manually construct a database of all public-to-private acquisition offers of Italian firms between the years 1998 and 2012 from tender offer prospectuses. We show that institutional investors have a major impact on the successful outcome of a delisting acquisition bid and the premium offered by the bidder. We find that foreign institutions and those that are regarded as activist investors have the greatest influence on the bid process. Specifically, public-to-private acquisitions are less likely to occur when a firm has institutional investors in its ownership structure. In addition, the bid premium of successful bids tend to be significantly larger when foreign investors are blockholders.

We also investigate the effect of a number of hitherto unexplored aspects of public-to-private bids. These are a) the threat of a merger with an unlisted company (in the event of an unsuccessful offer); b) the presence of an agreement among shareholders to surrender their shares to the bidder; and c) a fairness opinion offered by an independent entity. As would be expected, shareholder agreements to sell to the bidder increase the probability of a successful bid.

⁷ We thank an anonymous referee for suggesting this robustness check.

⁸ Details of the regressions are available upon request.

Surprisingly, shareholders appear to ignore merger threats and fairness opinions because neither have any significance for the success probability or the bid premium paid by a successful acquirer.

The relevance of institutional investors in corporate activity is a debate that has been going on for many years and still has many more years to run. While there is substantial scope for institutional investors to collude with other shareholders or management, our research shows that there are a number of benefits to having them part of a firm's ownership structure. Consistent with the theoretical work of Bennedsen and Wolfenzon (2000) and Gomes and Novaes (2006), we find that institutions can act as effective guardians of minority shareholders.

There are a number of ways in which the research could be developed. This study considers only the Italian context. However, the regulatory, legal and economic development of a country may dominate the role of institutional investors. This is especially the case in environments where investor protection and law enforcement are stronger than in Italy. It may be that institutional investors act as a substitute for other governance structures within or outside the firm and this could be examined via an international comparative study.

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Table 1 – PTP tender offers by years.

The table reports the number, the percentage of equity capital (mean and median), and the value (mean, median and total value, € million) of controlling shareholder-initiated PTP Italian tender offers (successful and unsuccessful) in the period July 1998 to June 2012, by year. (Year 1998 figures have been converted from Italian Lira to Euro.)

| Year | N | EQUITY CAPITAL, % | | EQUITY CAPITAL, € MLN | | |
|-------|----|-------------------|--------|-----------------------|--------|-----------|
| | | MEAN | MEDIAN | MEAN | MEDIAN | TOTAL |
| 1998 | 1 | 16.40 | 16.40 | 12.97 | 12.97 | 12.97 |
| 1999 | 5 | 39.21 | 34.36 | 120.93 | 79.78 | 604.66 |
| 2000 | 9 | 40.26 | 45.00 | 866.05 | 516.52 | 7,794.45 |
| 2001 | 4 | 25.27 | 20.39 | 103.34 | 76.05 | 413.35 |
| 2002 | 8 | 45.14 | 45.27 | 603.70 | 343.53 | 4,829.56 |
| 2003 | 8 | 33.68 | 30.46 | 93.53 | 60.61 | 748.24 |
| 2004 | 7 | 26.06 | 25.79 | 47.16 | 18.71 | 330.11 |
| 2005 | 4 | 45.43 | 46.66 | 101.95 | 72.94 | 407.81 |
| 2006 | 3 | 33.43 | 25.53 | 460.93 | 127.63 | 1,382.80 |
| 2007 | 7 | 45.82 | 34.96 | 183.78 | 74.96 | 1,286.46 |
| 2008 | 12 | 44.24 | 38.73 | 165.30 | 128.30 | 1,983.63 |
| 2009 | 5 | 45.01 | 45.15 | 51.75 | 45.66 | 258.75 |
| 2010 | 4 | 23.30 | 22.61 | 97.45 | 55.29 | 389.78 |
| 2011 | 7 | 29.11 | 21.26 | 288.65 | 135.34 | 2,020.58 |
| 2012 | 1 | 25.15 | 25.15 | 211.31 | 211.31 | 211.31 |
| Total | 85 | 37.38 | 34.36 | 266.76 | 97.69 | 22,674.47 |

Table 2 – Descriptive statistics of target firms vs. other firms.

The table reports the descriptive statistics for the sample of 85 firms targeted by a controlling shareholder-initiated PTP tender offer vs. the universe of Italian listed firms in the period July 1998 to June 2012. *D_Inst_Investors*, *D_Foreign_Inst_Investors*, *D_Active_Inst_Investors*, *D_Non-Active_Foreign_Inst_Investors* are binary variables equal to 1 if the firm ownership structure includes institutional investors, foreign institutional investors, activist institutional investors, non-activist foreign institutional investors, respectively; *VR_Inst_Investors*, *VR_Foreign_Inst_Investors*, *VR_Active_Inst_Investors*, *VR_Non-Active_Foreign_Inst_Investors* represent the cumulative percentage voting rights of institutional investors, foreign institutional investors, activist institutional investors, non-activist foreign institutional investors, respectively; *D_Financial* is a binary variable equal to 1 in case of a financial firm; *Total Assets* and *Sales* represent the amount of total assets and sales, respectively; *Int_Coverage_Ratio* is the ratio between EBIT and interest expenses; *Leverage* is the ratio between net financial position and total assets (net of cash); *ROA* is measured as the ratio between EBIT and total assets; ΔROA is the difference between current ROA and ROA one year before; *Mkt_Cap* is the market capitalization; *MTB* is the market-to-book ratio; *Volatility* is the annualized 250-day standard deviation of stock log-return; *VR_1st_Shareholder* and *VR_2nd_Shareholder* represent the cumulative percentage voting rights of the first and second largest shareholder, respectively; *Free Float* is the percentage of floating shares. All balance sheet variables refer to the last balance sheet approved before the tender offer announcement. Market capitalization and market-to-book refer to the end of the previous year relative to the tender offer announcement. For each considered variable, mean differences between tender offer firms and other firms is provided. ATT represents the average treatment effect on treated, obtained through the nearest neighbour propensity score matching methodology (variables used for matching are: *Mkt_Cap*, *VR_1st_Shareholder* and *D_Financial*). Statistical significance follows the usual notation (i.e., ***, **, * denote significance at 1%, 5% and 10% probability level, respectively).

| | TENDER OFFER | | | NON-TENDER OFFER | | | MEAN DIFFERENCE | ATT |
|---|--------------|-------|--------|------------------|-------|--------|-----------------|------------|
| | N | MEAN | ST DEV | N | MEAN | ST DEV | | |
| <i>D_Inst_Investors</i> | 85 | 0.46 | 0.50 | 3,557 | 0.41 | 0.49 | 0.05 | -0.17 ** |
| <i>D_Foreign_Inst_Investors</i> | 85 | 0.34 | 0.48 | 3,557 | 0.18 | 0.38 | 0.16 *** | 0.05 |
| <i>D_Active_Inst_Investors</i> | 85 | 0.16 | 0.37 | 3,557 | 0.01 | 0.07 | 0.16 *** | 0.13 *** |
| <i>D_Non-Active_Foreign_Inst_Investors</i> | 85 | 0.18 | 0.38 | 3,557 | 0.18 | 0.38 | 0.00 | -0.08 |
| <i>VR_Inst_Investors</i> | 85 | 3.97 | 6.14 | 3,557 | 8.08 | 18.73 | -4.10 ** | -10.99 *** |
| <i>VR_Foreign_Inst_Investors</i> | 85 | 2.90 | 4.97 | 3,557 | 2.83 | 11.01 | 0.07 | -3.42 * |
| <i>VR_Active_Inst_Investors</i> | 85 | 1.03 | 2.64 | 3,557 | 0.13 | 3.18 | 0.90 *** | -2.39 |
| <i>VR_Non-Active_Foreign_Inst_Investors</i> | 85 | 1.52 | 4.24 | 3,557 | 2.64 | 10.31 | -1.11 | -1.37 |
| <i>D_Financial</i> | 85 | 0.13 | 0.34 | 3,557 | 0.12 | 0.33 | 0.01 | -0.07 |
| INDUSTRIAL: | | | | | | | | |
| <i>Total Assets (€, bln)</i> | 74 | 0.99 | 2.10 | 2,852 | 4.40 | 23.60 | -3.41 | -1.08 |
| <i>Sales (€, bln)</i> | 74 | 0.76 | 1.57 | 2,852 | 2.09 | 7.99 | -1.33 | -0.22 |
| <i>Int_Coverage_Ratio</i> | 74 | 12.23 | 20.91 | 2,815 | 9.12 | 19.11 | 3.11 | 5.05 |
| <i>Leverage (%)</i> | 74 | 19.81 | 26.51 | 2,849 | 29.31 | 36.09 | -9.50 ** | -11.77 ** |
| <i>ROA (%)</i> | 74 | 6.33 | 5.84 | 2,844 | 3.91 | 7.38 | 2.42 *** | 3.04 *** |
| <i>ΔROA (YoY, %)</i> | 74 | 1.54 | 9.08 | 2,844 | 0.00 | 18.47 | 1.54 | 0.05 |
| FINANCIAL: | | | | | | | | |
| <i>Total Assets (€, bln)</i> | 11 | 50.90 | 131.15 | 371 | 50.50 | 102.12 | 0.40 | 40.63 |
| <i>Leverage (%)</i> | 11 | 17.77 | 41.61 | 371 | 44.30 | 43.41 | -26.53 ** | -36.04 |
| <i>ROA (%)</i> | 11 | 3.90 | 4.95 | 353 | 1.22 | 3.82 | 2.68 ** | 2.03 |
| <i>ΔROA (YoY, %)</i> | 11 | 0.89 | 6.41 | 353 | -2.75 | 10.23 | 3.64 | -0.61 |
| <i>Mkt_Cap (€, bln)</i> | 85 | 0.71 | 2.64 | 3,223 | 1.19 | 4.19 | -0.48 | -0.26 |
| <i>MTB</i> | 85 | 1.82 | 1.68 | 3,099 | 2.02 | 4.77 | -0.20 | -0.52 |
| <i>Volatility (%)</i> | 85 | 32.30 | 11.37 | 3,229 | 36.26 | 13.90 | -3.96 *** | 0.51 |
| <i>VR_1st_Shareholder (%)</i> | 85 | 62.62 | 17.36 | 3,557 | 47.47 | 21.13 | 15.15 *** | -0.07 |
| <i>VR_2nd_Shareholder (%)</i> | 85 | 5.04 | 7.16 | 2,279 | 9.91 | 8.53 | -4.87 | -5.89 *** |
| <i>Free Float (%)</i> | 85 | 33.52 | 16.46 | 2,295 | 43.41 | 20.22 | -9.89 *** | -1.73 |

Table 3 – Number of institutional investors and holdings of target firms.

The table reports the breakdown of the presence of institutional investors among the firms included in the tender offer sample. The first three columns, (A), (B) and (C), indicate the number of institutional investors per firm and the total number of institutional investors. For example, there are 17 firms having 1 institutional investor (i.e., a total number of 17 institutional investors), 13 firms having 2 institutional investors (i.e., a total number of 26 institutional investors), etc. The fourth column, (D) TOTAL, presents the average cumulative voting rights held by institutional investors per firm. For example, 4.99 percent is the average cumulative voting rights per firm held by institutional investors when exactly 1 of them is present; 9.06 percent is the average cumulative voting rights per firm held by institutional investors when exactly 2 of them are present; etc. The fifth column, (E) FOREIGN, and the seventh column, (G) ACTIVE, respectively, report the number of foreign or active institutional investors and the average cumulative voting rights per firm held by foreign and active institutional investors, respectively. For example, in the class of firms with 1 institutional investor, 8 out of 17 institutional investors are foreign and hold 2.71 percent cumulative voting rights per firm, and 4 out of 17 institutional investors are active and hold 1.65 percent cumulative voting rights per firm). The sixth column, (F) DOMESTIC, and the eighth column, (H) PASSIVE, are complementary to columns (E) and (G), respectively.

| (A) | (B) | (C) = (A) × (B) | (D) TOTAL | (E) FOREIGN | (F) DOMESTIC | (G) ACTIVE | (H) PASSIVE | | | | |
|-------------|---------|-------------------------|------------------|----------------|------------------|---------------|------------------|---|------------------|----|------------------|
| # Investors | # Firms | Total # of Investors | Average VR, % | # | Average VR, % | # | Average VR, % | # | Average VR, % | # | Average VR, % |
| 0 | 46 | . | . | . | . | . | . | . | . | . | . |
| 1 | 17 | 17 | 4.99 | 8 | 2.71 | 9 | 2.28 | 4 | 1.65 | 13 | 3.34 |
| 2 | 13 | 26 | 9.06 | 18 | 7.05 | 8 | 2.01 | 8 | 3.83 | 18 | 5.23 |
| 3 | 3 | 9 | 9.06 | 7 | 6.89 | 2 | 2.17 | 1 | 0.74 | 8 | 8.32 |
| 4 | 3 | 12 | 13.85 | 10 | 11.09 | 2 | 2.76 | . | . | 12 | 13.85 |
| 5 | 2 | 10 | 24.73 | 7 | 19.92 | 3 | 4.81 | . | . | 10 | 24.73 |
| 6 | . | . | . | . | . | . | . | . | . | . | . |
| 7 | 1 | 7 | 17.01 | 6 | 15.00 | 1 | 2.01 | 3 | 7.67 | 4 | 9.34 |

Table 4 – Descriptive statistics of market premia and performance.

The table reports descriptive statistics for the sample of 85 Italian controlling shareholder-initiated PTP tender offers in the period July 1998 to June 2012. *x-Day Premium* is the natural logarithm of the ratio between the tender offer price and the market price of the stock *x* trading days prior to the tender offer announcement, where $x = 1, 5, 30, 90, 360$; *Performance [-31; -60]* and *Performance [-31; -90]* are the logarithmic returns in the time windows [-31; -60] and [-31; -90] relative to the tender offer announcement, respectively, minus the logarithmic return of the market computed in the same time window.

| VARIABLE | MEAN | ST DEV | Q1 | MEDIAN | Q3 |
|------------------------------------|-------|--------|--------|--------|-------|
| <i>1-Day Premium (%)</i> | 10.31 | 11.77 | 1.24 | 7.90 | 15.35 |
| <i>5-Day Premium (%)</i> | 14.73 | 13.67 | 7.34 | 14.40 | 22.31 |
| <i>30-Day Premium (%)</i> | 18.98 | 17.47 | 10.15 | 17.62 | 25.81 |
| <i>90-Day Premium (%)</i> | 18.23 | 23.16 | 4.65 | 18.57 | 30.27 |
| <i>360-Day Premium (%)</i> | 15.09 | 43.99 | -13.86 | 18.23 | 42.73 |
| <i>Performance [-31; -60] (%)</i> | 0.74 | 11.80 | -5.33 | -0.65 | 8.70 |
| <i>Performance [-31; -90] (%)</i> | 1.24 | 16.53 | -10.51 | 3.39 | 10.43 |
| <i>Performance [-31; -360] (%)</i> | 3.19 | 36.34 | -19.68 | -0.35 | 28.90 |

Table 5 – Likelihood of a successful PTP tender offer.

The table reports the results of a logit regression where the dependent variable is a binary variable equal to 1 if the tender offer is successful (i.e., resulted in the delisting of the target firm). *Free Float* is the percentage of floating shares; *MTB* is the market-to-book ratio; *30-Day Premium* is the natural logarithm of the ratio between the tender offer price and the market price of the stock 30 trading days before the tender offer announcement; *D_Agreement* is a binary variable equal to 1 if the tender offer prospectus mentions an agreement between shareholders aimed at surrender their shares to the offeror; *D_Fairness* is a binary variable equal to 1 if the tender offer price fairness is stated by an external entity; *D_Merger* is a binary variable equal to 1 if the tender offer prospectus indicates the offeror willingness to merge the target company with a private firm in case the delisting threshold (90% ownership threshold) is not reached; *VR_Inst_Investors*, *VR_Foreign_Inst_Investors*, *VR_Domestic_Inst_Investors*, *VR_Active_Inst_Investors*, *VR_Non-Active_Inst_Investors* represent the cumulative percentage voting rights of institutional investors, foreign institutional investors, domestic institutional investors, activist institutional investors, non-activist institutional investors, respectively. All balance sheet variables refer to the last balance sheet approved before the tender offer announcement. Market-to-book refers to the end of the previous year relative to the tender offer announcement. *Inverse Mills Ratio* controls for the effect of endogenous self-selection in a Heckman (1979) two-staged procedure. Statistical significance follows the usual notation (i.e., ***, **, * denote significance at 1%, 5% and 10% probability level, respectively). Standard errors are depicted in parentheses.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|-------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| <i>Free Float</i> | (0.027) -0.001 (0.004) | (0.027) -0.001 (0.004) | (0.026) -0.001 (0.004) | (0.028) -0.001 (0.004) | (0.028) -0.001 (0.004) | (0.025) -0.003 (0.004) | (0.027) -0.001 (0.004) |
| <i>MTB</i> | 0.045** (0.022) | 0.045** (0.021) | 0.044** (0.021) | 0.045** (0.022) | 0.043** (0.021) | 0.039* (0.020) | 0.045** (0.022) |
| <i>30-Day Premium</i> | 0.436** (0.210) | 0.525** (0.216) | 0.541** (0.213) | 0.433** (0.214) | 0.529** (0.215) | 0.520** (0.203) | 0.422* (0.217) |
| <i>D_Agreement</i> | 0.220*** (0.083) | 0.209** (0.083) | 0.198** (0.082) | 0.220*** (0.084) | 0.194** (0.083) | 0.203*** (0.078) | 0.222*** (0.084) |
| <i>D_Fairness</i> | 0.017 (0.076) | 0.016 (0.075) | 0.012 (0.075) | 0.016 (0.076) | 0.010 (0.075) | -0.002 (0.071) | 0.015 (0.076) |
| <i>D_Merger</i> | -0.016 (0.078) | 0.003 (0.078) | 0.012 (0.078) | -0.017 (0.078) | 0.013 (0.077) | 0.052 (0.075) | -0.016 (0.078) |
| <i>VR_Inst_Investors</i> | | -0.009 (0.006) | | | | | |
| <i>VR_Foreign_Inst_Investors</i> | | | -0.014* (0.008) | | -0.015** (0.008) | | |
| <i>VR_Domestic_Inst_Investors</i> | | | | 0.000 (0.015) | 0.007 (0.015) | | |
| <i>VR_Active_Inst_Investors</i> | | | | | | -0.048*** (0.014) | |
| <i>VR_Non-Active_Inst_Investors</i> | | | | | | -0.002 (0.008) | 0.002 (0.009) |
| <i>Constant</i> | 0.329 (0.659) | 0.453 (0.674) | 0.360 (0.645) | 0.373 (0.711) | 0.340 (0.695) | 0.473 (0.620) | 0.332 (0.660) |
| <i>Invers Mills Ratio</i> | 0.045 (0.290) | 0.004 (0.298) | 0.025 (0.285) | 0.021 (0.315) | 0.016 (0.308) | 0.043 (0.275) | 0.048 (0.291) |
| <i>N</i> | 2,094 | 2,094 | 2,094 | 2,094 | 2,094 | 2,094 | 2,094 |
| χ^2 (p-value) | 0.0145 | 0.0096 | 0.0050 | 0.0255 | 0.0082 | 0.0001 | 0.0245 |

Table 6 – Regression analysis of the tender offer premium.

The table reports the results of an OLS regression where the dependent variable is the 30-day tender offer premium, i.e. the natural logarithm of the ratio between the tender offer price and the market price of the stock 30 trading days before the tender offer announcement. *Performance [-31; -60]* is the logarithmic return in the time windows [-31; -60] relative to the tender offer announcement minus the logarithmic return of the market computed in the same time window; *VR_1st_Shareholder* represents the cumulative percentage voting rights of the first largest shareholder; *LN_Mkt_Cap* is the natural logarithm of the market capitalization; *Volatility* is the annualized 250-day standard deviation of stock log-return; *D_Financial* is a binary variable equal to 1 in case of a financial firm; *D_Industrial* is a binary variable equal to 1 in case of a non-financial firm; *Free Float* is the percentage of floating shares; *MTB* is the market-to-book ratio; ΔROA is the difference between current ROA and ROA one year before; *Leverage* is the ratio between net financial position and total assets (net of cash); *D_Agreement* is a binary variable equal to 1 if the tender offer prospectus mentions an agreement between shareholders aimed at surrender their shares to the offeror; *D_Fairness* is a binary variable equal to 1 if the tender offer price fairness is stated by an external entity; *D_Merger* is a binary variable equal to 1 if the tender offer prospectus indicates the offeror willingness to merge the target company with a private firm in case the delisting threshold (90% ownership threshold) is not reached; *VR_Inst_Investors*, *VR_Foreign_Inst_Investors*, *VR_Domestic_Inst_Investors*, *VR_Active_Inst_Investors*, *VR_Non-Active_Inst_Investors* represent the cumulative percentage voting rights of institutional investors, foreign institutional investors, domestic institutional investors, activist institutional investors, non-activist institutional investors, respectively. All balance sheet variables refer to the last balance sheet approved before the tender offer announcement. Market capitalization and market-to-book refer to the end of the previous year relative to the tender offer announcement. Statistical significance follows the usual notation (i.e., ***, **, * denote significance at 1%, 5% and 10% probability level, respectively).

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|-------------------------------------|---------------------|---------------------|--------------------|---------------------|--------------------|--------------------|---------------------|---------------------|---------------------|
| <i>Performance [-31; -60]</i> | -0.445** (0.210) | -0.356* (0.203) | -0.346* (0.206) | -0.389* (0.209) | -0.368* (0.207) | -0.380* (0.200) | -0.447** (0.212) | -0.392* (0.209) | -0.372* (0.208) |
| <i>VR_1st_Shareholder</i> | 0.002 (0.002) | 0.003* (0.002) | | 0.003 (0.002) | | | 0.002 (0.002) | 0.003* (0.002) | |
| <i>Ln_Mkt_Cap</i> | 0.001 (0.016) | 0.008 (0.014) | 0.003 (0.016) | -0.001 (0.014) | -0.003 (0.016) | 0.006 (0.017) | 0.000 (0.015) | -0.001 (0.014) | -0.003 (0.015) |
| <i>Volatility</i> | 0.137 (0.318) | 0.124 (0.306) | 0.117 (0.339) | 0.119 (0.311) | 0.113 (0.339) | 0.131 (0.342) | 0.139 (0.317) | 0.106 (0.313) | 0.104 (0.337) |
| <i>D_Financial</i> | 0.075 (0.060) | 0.094 (0.058) | 0.112* (0.060) | 0.094 (0.057) | 0.111* (0.059) | 0.096 (0.063) | 0.083 (0.060) | 0.097* (0.057) | 0.116* (0.059) |
| <i>Free Float</i> | 0.003* (0.002) | 0.003* (0.002) | 0.002 (0.001) | 0.003* (0.002) | 0.002 (0.001) | 0.002 (0.001) | 0.003* (0.002) | 0.003* (0.002) | 0.002 (0.001) |
| <i>MTB</i> | 0.005 (0.008) | 0.004 (0.009) | 0.001 (0.008) | 0.005 (0.009) | 0.001 (0.008) | 0.001 (0.008) | 0.005 (0.009) | 0.004 (0.009) | 0.001 (0.008) |
| <i>ΔROA*D_Ind</i> | -0.002 (0.002) | -0.002 (0.002) | -0.003 (0.002) | -0.001 (0.002) | -0.002 (0.002) | -0.003* (0.002) | -0.002 (0.002) | -0.001 (0.002) | -0.002 (0.002) |
| <i>ΔROA*D_Fin</i> | 0.003 (0.010) | 0.005 (0.008) | 0.000 (0.009) | 0.004 (0.009) | 0.000 (0.009) | 0.001 (0.010) | 0.003 (0.010) | 0.004 (0.009) | 0.000 (0.009) |
| <i>Leverage*D_Industrial</i> | -0.082 (0.082) | -0.040 (0.077) | -0.049 (0.083) | -0.048 (0.078) | -0.053 (0.082) | -0.069 (0.084) | -0.081 (0.081) | -0.042 (0.077) | -0.048 (0.080) |
| <i>Leverage*D_Financial</i> | 0.156 (0.253) | 0.121 (0.244) | 0.126 (0.234) | 0.130 (0.244) | 0.131 (0.234) | 0.142 (0.243) | 0.157 (0.254) | 0.127 (0.244) | 0.129 (0.235) |
| <i>D_Agreement</i> | -0.030 (0.034) | -0.019 (0.034) | -0.017 (0.035) | -0.016 (0.035) | -0.015 (0.035) | -0.028 (0.035) | -0.031 (0.033) | -0.020 (0.034) | -0.018 (0.034) |
| <i>D_Fairness</i> | 0.001 (0.041) | -0.021 (0.040) | 0.003 (0.049) | -0.008 (0.040) | 0.009 (0.048) | 0.002 (0.051) | 0.008 (0.041) | -0.009 (0.040) | 0.011 (0.049) |
| <i>D_Merger</i> | -0.048 (0.036) | -0.053 (0.033) | -0.047 (0.035) | -0.058* (0.034) | -0.051 (0.035) | -0.041 (0.036) | -0.059 (0.037) | -0.056 (0.034) | -0.054 (0.035) |
| <i>VR_Inst_Investors</i> | | 0.009*** (0.002) | 0.006** (0.002) | | | | | | |
| <i>VR_Foreign_Inst_Investors</i> | | | | 0.010*** (0.003) | 0.007** (0.003) | | | | |
| <i>VR_Domestic_Inst_Investors</i> | | | | | | 0.009 (0.008) | | | |
| <i>VR_Active_Inst_Investors</i> | | | | | | | 0.012** (0.005) | 0.013*** (0.004) | 0.014*** (0.004) |
| <i>VR_Non-Active_Inst_Investors</i> | | | | | | | | 0.012*** (0.003) | 0.009*** (0.003) |
| <i>Constant</i> | -0.030 (0.260) | -0.245 (0.211) | 0.081 (0.255) | -0.099 (0.206) | 0.149 (0.246) | 0.042 (0.269) | -0.022 (0.254) | -0.088 (0.201) | 0.155 (0.241) |
| <i>N</i> | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 |
| <i>R²</i> | 0.265 | 0.348 | 0.288 | 0.329 | 0.283 | 0.258 | 0.284 | 0.356 | 0.312 |

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