Price Informativeness and the Role of Advisors in M&As*

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Abstract

Price informativeness influences the takeover decisions and the effectiveness of advisors in the U.S. market for corporate control. Relatively high informed trading in the target's shares is associated with high synergies, which are reflected in high abnormal returns for both merging firms. In public target acquisitions, high informed trading limits the need to hire top-tier advisors and pay high advisory fees. In private target acquisitions, high informativeness in the acquirer's shares is a necessary condition for top-tier advisors to increase the acquirer abnormal returns. We provide the first contribution highlighting the effectiveness of top-tier advisors in private target acquisitions.

Keywords: Acquisitions; Informed Trading; Merger Advisors; Private Targets; Cumulative Abnormal Returns.

JEL classification: G34; G14.

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1. Introduction

Mergers and Acquisitions (M&As) represent one of the most informationally demanding forms of corporate investment and restructuring. In addition to facing legal, logistical, and regulatory challenges, the acquiring firm requires an accurate assessment of the potential synergies that aim to increase shareholder wealth. Limited access to relevant information about the growth prospects of the target firm might lead to the inaccurate evaluation of the acquired assets, a potential failed integration of business activities, and ultimately a decline in the acquiring firm's value (Moeller et al. 2007). As a result, acquirers tend to seek financial advice from expensive, external, and often reputable financial advisors who potentially increase firm value by identifying targets with greater economic synergies (Bao and Edmans 2011; Bowers and Miller 1990). More recently, Golubov et al. (2012) show that reputational considerations incentivize top-tier advisors to provide valuable advice to their clients. Notably, an important array of studies shows that corporate decision makers may infer valuable information from the variation in stock prices and end up incorporating such information in designing their investment plans (Chen et al. 2007, Durnev et al. 2004, Subrahmanyam and Titman 1999). Accordingly, the ability of acquiring firms – with and without the involvement of top-tier advisors – to design high synergy deals can be significantly influenced by the information imbedded in the merging firms' stock prices. Despite the relevance of this connection, it has not been thoroughly examined to this date. In this paper, we fill this gap in the literature by tracing the role of merging firms' price informativeness in (a) influencing the gains of the merging firms, and (b) shaping the acquirer's gains that are derived from expensive financial advice.

First, we argue that a relatively high degree of informed trading in the target's shares provides a more reliable valuation reference point for the acquirer compared to cases in which most of the

variation in the target firm's valuation is driven by market- and sector-wide co-movements. In such a case, the target's pre-acquisition market valuation allows for an accurate assessment of the potential synergies that can be realized in the event of a merger. This should lead acquirers to combine their own private information about the deal's prospects with the rich sets of information reflected in the targets' share prices to realize high takeover gains. We also predict that the shareholders of target firms subject to high informed trading capitalize on the informativeness of their shares to realize higher returns.

Second, our analysis of the wealth effects of price informativeness in M&As has direct implications in assessing the effectiveness of top-tier and expensive advisors. Put simply, the high relative informativeness in the target's shares can be a substitute for the efforts required by top-tier and highly paid advisors to assess the deal's prospects by valuing the target's assets and growth opportunities.[1] In such a case, acquiring firms are likely to misallocate valuable resources through the payment of relatively high advisory fees. Alternatively, high informativeness in the target's shares may provide additional opportunities for advisors to identify high synergies for their clients, and hence lead to higher acquirer gains.

We test these empirical predictions on a comprehensive sample that covers domestic acquisitions by public U.S. companies from 2000 to 2014. Our evidence from both multivariate regressions and Propensity Score Matching (PSM) suggests that acquirers in public target deals in which the target is subject to a relatively high degree of informed trading realize, on average, one to two percentage points higher announcement period Cumulative Abnormal Returns (CAR) compared to acquirers of counterpart companies subject to relatively low informed trading. Furthermore, target firms subject to relatively high informed trading realize, on average, three to

[1] In this paper, the terms 'high target informativeness' and 'high relative target informativeness' are used interchangeably.

nine percentage points higher CAR than counterparts subject to relatively low informed trading. Taken together, these results are in line with the main conjecture that a relatively high degree of informed trading in a target's shares allows for the design of high-synergy M&As from which both the acquirer and the target firms earn wealth gains. Our findings also highlight a spillover in informed trading: relatively high price informativeness in the target's shares is a significant predictor of increases in the acquirer's non-synchronized trading in the year following the acquisition announcement.

We build on previous evidence on the difference in the effectiveness of top-tier advisors between public and private target M&As (Golubov et al. 2012) by analyzing separate samples of public and private target acquisitions. We find that in public target acquisitions the presence of top-tier advisors and the payment of high advisory fees are associated with significant acquirer gains, but only for M&As with relatively low target price informativeness. In particular, the presence of a top-tier advisor in acquisitions of targets subject to low informed trading can generate up to a four percent increase in the acquirer's CAR. Moreover, the payment of high advisory fees is also associated with significant increases in the acquirer's CAR in such deals. However, these positive wealth effects are neutralized when the target firm's shares are subject to a relatively high informed trading. Acquiring firms are aware of the limited added value offered by top-tier advisors and are less likely to hire such advisors when the target's relative degree of price informativeness is high.

In private target acquisitions we find that the presence of top-tier advisors is associated with significant increases in the acquirer's shareholder abnormal returns relative to the absence of such advisors, only if the acquiring firm is subject to a relatively high informed trading. Moreover, the

presence of top-tier advisors in such deals is a necessary condition for acquiring firms to capitalize on the high informativeness in their shares to generate gains for their shareholders.

Our paper is related to a growing number of studies on two related strands of literature that examine whether informativeness and financial advice, independently, lead to measurable benefits for the acquiring firm. Importantly, it extends the literature in a number of important dimensions.

First, we contribute to the literature examining the relationship between the price system and investment decisions. An influential part of this literature casts doubt on the informative role of stock prices in affecting corporate decisions (Bosworth 1975, Morck et al. 1990). This strand postulates that the stock market cannot be more than a sideshow, especially because corporate managers are – to a large extent – the source of the information that is reflected in the prevailing prices (Morck et al. 1990). Moreover, making decisions based on short-term stock price movements might lead corporate managers to deviate from their long-term objectives (Bosworth 1975). Our study provides a direct example from the market for corporate control on the effectiveness of the input provided by non-synchronized trading in designing and adjusting investment plans (Chen et al. 2007; Durnev et al. 2003, 2004). M&A-wise, the robust empirical findings emphasize the critical role of price informativeness in shaping the synergies of a deal and ultimately the gains realized by the merging companies.

In recent work, Adra and Barbopoulos (2017) focus on the role of mispricing in incentivizing investors to collect relevant information, as suggested by Grossman and Stiglitz (1980), which allows acquirers to realize high abnormal returns. We extend these findings by focusing on the degree of non-synchronized trading, rather than overall levels of shares turnover, as the key source of relevant information in designing value-enhancing M&As. We further show that the gains from high takeover synergies are not exclusively limited to acquiring firms. In fact, target companies

subject to relatively high informed trading capitalize on the informativeness of their shares and end up receiving a sizable portion of the overall synergies.

Second, our findings refine the literature on advisory roles in M&As (Agrawal et al. 2013; Hunter and Jagtiani 2003; Kale et al. 2003). Golubov et al. (2012) find that top-tier advisors deliver significant increases in bidder returns relative to non-top-tier counterparts in public target acquisitions and, accordingly, charge high fees for their services. However, the authors find that top-tier advisors do not add value relative to their non-top-tier counterparts in the acquisition of unlisted targets. They present these results as evidence that top-tier advisors deliver better services in public target acquisitions due to the relevance of the larger losses that arise from reputational sanctions in the public M&A market relative to the acquisitions of unlisted firms.

Our results offer a distinct perspective on the effectiveness of top-tier advisors relative to their non-top-tier counterparts by putting emphasis on the informational environment in which such advisors deliver their services. In public target M&As, when significant information is already incorporated in the target's prevailing prices, top-tier and expensive advisors cannot provide added value to their customers relative to their non-top-tier and non-expensive counterparts. Nevertheless, private target acquisitions are characterized by significant information asymmetry concerns and valuation difficulties. In such a context, top-tier advisors can put their skills and expertise to their best use to deliver high returns for their clients, as long as the acquirer's shares provide relevant informational input for these advisors to properly evaluate the synergies of the takeover.

2. Related Literature

2.1. Prices and investments

An influential body of literature examines whether investment managers should pay attention to the stock market in developing, adjusting, and applying their investment plans (Blanchard et al. 1993; Chen et al. 2007; Morck et al. 1990; Polk and Sapienza 2009). Both Morck et al. (1990) and Blanchard et al. (1993) question whether managers should follow the signals provided by the stock market, even when such signals do not coincide with their own assessment. If managers are more knowledgeable than the average market participant about the fundamentals that affect their business strategies, then the evidence of a stock market effect on investment decisions would indicate that managers "cater" for investor sentiment (Polk and Sapienza 2009) and follow the fads and fashions affecting the overall market (Shiller 1984).

Along similar lines, early work by Bosworth (1975) stresses the notion that the stock market can't be more than a sideshow, and that managers should ignore the movement in stock prices and base their decisions on their own assessments. Bakke and Whited (2010), however, recognize the importance of separating price movements that are due to fundamentals from those that are not. Their overall evidence suggests a noticeable stock market effect on investment decisions only when the variation is fundamentals-driven for firms whose stocks are not mispriced and that rely on external financing.

Especially at the initial stages of investment, the information sets available to corporations are incomplete at best. This incompleteness complicates planning tasks and makes the initiation and continuation of the investments subject to significant uncertainties. Classical work by Hayek (1945) suggests that prices offer useful signals for decision makers in allocating resources. In this context, prices are interpreted as aggregators of widely dispersed information across the economic

system, which simplifies the resource allocation task of decision makers. This initial proposition is refined in the context of financial markets by Grossman and Stiglitz (1980), Subrahmanyam and Titman (1999), and Dow and Gorton (1997), who emphasize the role of market participants in acquiring costly information and making trading decisions based on such information. Accordingly, despite the imperfection of the pricing mechanisms, the prevailing equity prices allow corporate managers to infer valuable information about the growth prospects of their companies. The empirical literature provides ample evidence in support of these propositions (Chen et al. 2007, Durnev et al. 2004).

Durnev et al. (2004) document a high correlation between firm-specific variation in returns and the overall efficiency of corporate investments across sectors. Along similar lines, Chen et al. (2007) put more emphasis on the role of informed trading in influencing investment decisions. They analyze firm-level data and document a positive correlation between the degree of price informativeness – which is represented both by the Roll (1988) price non-synchronicity measure and the Easley et al. (1996) probability of informed trading – and the investments' sensitivity to stock prices. Fresard (2012) extends this analysis by showing that corporate managers infer valuable information from stock prices not only in determining their investment decisions but also in determining optimal cash reserves levels. Cesari and Huang-Meier (2015), in turn, show that corporations learn from stock returns in setting and adjusting dividends.

2.2. Prices, information, and M&A

Previous contributions have also emphasized the relevance of market price signals for the consummation of M&As. Jayaraman et al. (2001) find a significant increase in the trading of options written on the stocks of merging firms before the acquisition announcement. They present

this result as evidence in support of the notion that informed trading increases prior to corporate events. Kau et al. (2008) provide evidence suggesting that managers tend to listen to the market, as they are likely to respond to a negative reaction to a takeover announcement by cancelling the deal. Luo (2005) finds that merging firms extract information from stock prices when determining whether a deal will eventually be closed. This finding is particularly noticeable in the acquisitions made by small acquirers and in M&As in non-hi-tech sectors, which represent cases in which the market has more information than the companies' insiders.

3. Empirical Predictions

3.1. Price informativeness and acquirer gains

During the due diligence process, the acquirer needs to ensure that the proposed synergies can be realistically realized and that the target firm does not end up being overpaid in the deal. Furthermore, organizational challenges that might delay the integration of the merging firms' business activities need to be properly identified and addressed.

We argue that the presence of a relatively high degree of informed trading in the target's shares before the acquisition announcement presents a rich information environment for the acquirer to realize high synergies from the takeover. Such high informed trading indicates that equity investors have been reacting to the release of new corporate information and continuously assessing future growth prospects. Moreover, even when no formal announcements are made by the target firm, high informed trading in the target's shares can be due to equity investors' buying and selling decisions based on privately collected, non-publicly available information (Roll 1988).

Such factors lead the prevailing market valuation of the target firm to become a credible reference point during the due diligence process. That is, because the valuation of the target firm

is driven by trading decisions dependent on firm-specific information, the acquirer becomes less likely to conflate the target-specific growth prospects with common market- or industry-wide trends. Furthermore, in assessing the potential synergies to be realized from the acquisition, the acquirer can analyze the pre-acquisition stock variation of the target firm and equity investors' assessment of its previous announcements. The input provided by such an analysis provides a rich information environment leading to the design of a high-synergy deal, which is reflected in a significant increase in the acquirer's announcement period returns.

Empirical Prediction 1: High relative price informativeness in the target's shares is associated with an increase in acquirer gains.

3.2. Price informativeness and the target's gains

The direct implication of Empirical Prediction 1 is that the target's shareholders should capitalize on the degree of relative price informativeness in their shares when negotiating with potential acquirers. Knowing that relatively high informativeness of their shares is a critical contributor to the realization of high synergies, the target firm's shareholders can claim a significant part of the added synergies in exchange for tendering their shares. Consequently, shareholders of target companies whose shares are subject to a relatively high degree of informed trading should, on average, realize larger gains than shareholders of companies whose share pricing is mainly driven by industry- and market-wide factors.

Empirical Prediction 2: High relative price informativeness in the target's shares is associated with an increase in target gains.

3.3. Price informativeness, top-tier advisors, and advisory fees in public target acquisitions

The high relative degree of price informativeness might limit the need for the acquirer to hire top-tier financial advisors and pay high advisory fees. In particular, such decisions might be considered a waste of valuable resources by the acquirer because (a) the market valuation of the target company – to a large extent – already reflects its firm-specific growth opportunities, and (b) the price movements in the target firm's shares before acquisition allow the acquiring firm to infer valuable information about the target's business prospects. In such a case, extensive reliance on advisors might be a signal of the acquirer's failure to locate significant synergetic opportunities despite the richness of the information environment.

Nevertheless, high price informativeness in the target's shares might present a valuable opportunity for expensive financial advisors to locate synergetic opportunities for their clients. The relatively rich information environment provided by the information-driven trading activity in the target's shares can allow expensive advisors to put their highly relevant knowledge, skills, and business expertise to their best use. Through their analysis of the price variation in the target's shares, highly paid financial advisors can infer valuable information that they can use in designing an effective integration strategy of the merging firms. Accordingly, we form the following empirical prediction:

Empirical Prediction 3a: In public target acquisitions, the presence of a top-tier advisor is associated with an increase in acquirer gains when the target's degree of price informativeness is relatively high.

Empirical Prediction 3b: In public target acquisitions, an increase in advisor fees is associated with an increase in acquirer gains when the target's degree of price informativeness is relatively high.

3.4. Price informativeness and the effectiveness of top-tier advisors in private target acquisitions

Golubov et al. (2012) cast doubt on the ability of top-tier financial advisors to deliver added gains to their acquirer clients in private target acquisitions relative to their non-top-tier counterparts. Their main conjecture is that top-tier advisors are more incentivized to provide high-quality advising in public target acquisitions, which tend to be subject to high media and analyst coverage, compared to private target acquisitions. Accordingly, the reputational sanctions faced by top-tier advisors are more relevant in the former case than the latter.

We deviate from this explanation by arguing that the effectiveness of top-tier advisors in private target acquisitions is mainly influenced by the informational environment in which they operate. More specifically, the valuation difficulties and information asymmetry concerns characterizing private target M&As provide a venue for top-tier financial advisors to put their skills and expertise to their best use. Nevertheless, we argue that these skilled advisors need to rely on the information reflected in the acquiring firm's share price to accurately evaluate the deal's synergies and design integration plans.

Accordingly, we predict that the informativeness in the acquirer's share prices has a significant complementary role in enhancing the effectiveness of the services provided by top-tier advisors aiming to generate high returns to the acquirer.

Empirical Prediction 4: Top-tier advisors manage to increase acquirers' returns in private target acquisitions only in the presence of a high degree of acquirer-specific price informativeness.

4. Data

4.1. Sample selection criteria for public target acquisitions

Our sample covers U.S. mergers and acquisitions between January 1, 2000, and December 31, 2014, from the Thomson One Securities Data Corporation Database. We limit our analysis to domestic acquisitions to ensure that the merging firms operate within the same economic, legal, and institutional framework, as such factors need to be correctly identified in the analysis of cross-border M&As. Because our primary predictions are related to the relative price informativeness of the target's shares relative to the acquirer's, both the acquirer and the target should be publicly traded companies.

We exclude leveraged buyouts, acquisitions in the government sector, going-private deals, and reverse takeovers. We impose the restriction that the acquirer controls 100% of the target's shares after the deal's completion to ensure that all acquirers in our sample have the same objective of full target ownership and control. Furthermore, we limit the size of pre-acquisition toeholds to a maximum of 10% to ensure that the acquiring firm had limited impact on the target's decision-making before the acquisition. After imposing the restriction that the method of payment (stock, cash, or a mix of both), the deal value, and the merging firms' Datastream codes are reported, we end up with a sample of 918 acquisitions.

Table 1 provides a yearly breakdown of the sample in terms of the aggregate number of M&As, the acquirer and target industry relatedness, the payment method used in the deals, and the target sector. The aggregate takeover data follows a pro-cyclical pattern, reaching a peak in 2007 (79 deals) and a minimum during the financial crisis of 2008 (38 deals). Most of the deals (56%) are industry diversifying. Moreover, the deals that are settled in cash, stock, or a mix of both are almost evenly distributed in the sample. Industry-wise, the largest percentage of the acquired

companies operate in the hi-tech sector (26%), while the lowest percentage is in the retail sector (2.29%).

(Insert Table 1 about here)

4.2. Measuring price informativeness

Roll (1988) suggests that the portion of overall variation in a company's stock returns that is not explained by market and sector returns is generally due to the trading activity of arbitrageurs who collect additional information. As discussed by Chen et al. (2007), the systematic market- and industry-driven co-movement among stock returns reflects factors such as sentiment (Baker and Wurgler 2006), style investing (Barberis and Shleifer 2003), and contagion (Kodres and Pritsker 2002), rather than privately generated firm-specific information. Hence, as proposed by Roll (1988), and in the context of our analysis, the estimation of the degree of non-synchronized trading consists of running the following regression for both the acquiring and the target firms:

$$R_{i,t} = \alpha_1 + \alpha_2 R_{MKT,t} + \alpha_3 R_{Sector,t} + \varepsilon_{i,t} \quad (1)$$

$R_{i,t}$ represent the daily stock returns, α_1 is a constant, and α_2 and α_3 represent the sensitivities to daily market returns and local sector returns, respectively. We estimate the Roll R^2 by applying the regression from Equation (1) on the (*t*-252; *t*-3) window, with *t* referring to the announcement day.[2] The acquirer's and the target's degrees of pre-acquisition informed trading are calculated as 1-Roll R^2. This measure of price informativeness has been used in previous studies, such as Chen et al. (2007) and Durnev et al. (2003). Recently, Morck et al. (2013) estimate the Roll R^2 at market-wide and country-wide levels to investigate the dynamics of price informativeness over time.

[2] The empirical results reported in this article do not change if the (*t*-252; *t*-10) and (*t*-252; *t*-20) windows are used in the analysis.

Furthermore, we also estimate the Roll R^2 for the acquirer in the (t+3; t+252) window. Hence, the change in the acquirer's degree of price informativeness (Δ Acquirer Informativeness) is the difference between the acquirer's post-acquisition (1-Roll R^2) and its pre-acquisition (1-Roll R^2). These variables are defined in Appendix 1.

4.3. The treatment variables

We assess the informativeness of the target's shares relative to the acquirer's by constructing the variable *Relative Target Informativeness*. This variable refers to the difference between the target's degree of non-synchronized trading (1-Roll R^2) and the acquirer's. The median level of *Relative Target Informativeness* is 0.04 on the overall sample and 0 on the sample of observations for which the target's pre-acquisition profitability is available. Accordingly, we construct our initial treatment variable as a dummy variable assigned the value of 1 if *Relative Target Informativeness* exceeds its median value in the corresponding sample, and 0 otherwise. We refer to this variable as *High Relative Target Informativeness* to suggest that the target's degree of informed trading exceeds that of the acquirer. Such high relative informativeness in the target's shares should lead the acquirer's managers to infer valuable additional information from their target's price variation, beyond the information provided in the variation in their own company's stock movement.

Additionally, we construct an alternative treatment variable that explicitly combines the absolute high informativeness in the target's shares and the absolute low informativeness in the acquirer's shares. Specifically, the variable *Information Dispersion* is assigned the value of 1 when the target's degree of informed trading (1-Roll R^2) exceeds 0.82 *and* the acquirer's degree of informed trading is below this threshold, and 0 otherwise. The threshold level of 0.82 is the median degree of price informativeness for the acquiring firms in our sample.

Our reported findings in the paper are based on *High Informativeness* as the treatment variable. Key results with *Informativeness Dispersion* as the treatment variable are reported in Appendix 2.

4.4. Descriptive statistics

Table 2 provides the descriptive statistics of the continuous variables used in our empirical analysis. These variables cover the announcement period CAR of the acquirer and the target, the measures of non-synchronized trading, and a rich set of control variables. The announcement period CAR for the acquiring and target firms, as in Fuller et al. (2002), are estimated as the sum of the daily differences between the company's returns and the returns of the market index (NYSE firms) over the five-day event-window (*t-2, t+2*) around the day of the deal's announcement (day *t*=0). The relative target informativeness, in turn, is measured as the difference between the target's and the acquirer's levels of non-synchronized trading (1-Roll R^2).

(Insert Table 2 about here)

We also include in our analysis a variable representing the target's pre-acquisition performance. Given that the pre-acquisition Earnings before Interest and Taxes (EBIT) is the most covered target-specific variable in Thomson One, we introduce the variable *Target Profit*, which is the percentage of the target's EBIT to its total market value, to our empirical analysis. Overall, this variable is available for 888 out of the 918 observations in our sample.

To test Empirical Prediction 3a, we construct a dummy variable that is assigned the value of 1 in the presence of a top-tier advisor, and 0 otherwise. In classifying advisors as top-tier, we follow the classification provided by Golubov et al. (2012). This variable is covered in 796 deals of which 112 deals include top-tier advisors. To test Empirical Prediction 3b, we retrieve the

acquirer's advisory fees, as a percentage of the deal value, from Thomson One. We find this variable to be covered in 212 out of the 918 deals in our sample (12%).

To control for the effect of the acquirer's and the target's size, we include the market valuation of these companies' equity on the 43rd day before the acquisition announcement. The acquirer's and the target's market-to-book valuations are also presented for the same day. We also add to our analysis the acquirer's return on equity for the calendar year preceding the acquisition announcement. Moreover, our proxy for the acquirer's acquisition experience is calculated as the number of other acquisitions announced by the same acquirer during the same sample period. Appendix 1 provides a detailed description of these empirical variables.

4.5. Univariate evidence

Table 3 presents the initial univariate analysis of the acquirer and target wealth differentials between deals in which the target is subject to relatively high informed trading compared to the acquirer, and deals in which the degree of relative informed trading is low. Specifically, we consider a deal to be characterized by "high informativeness" when *Relative Target Informativeness* exceeds its median level (0.04). Otherwise, we consider the deal to be subject to "low informativeness."

(Insert Table 3 about here)

The reported evidence in Table 3 supports our predictions regarding the wealth effects of relative target informativeness. As suggested in Empirical Prediction 1, acquirers in deals subject to relatively high target informativeness tend to break even by realizing statistically insignificant CAR, while acquirers in deals subject to relatively low target informativeness tend to experience

highly significant announcement period losses (CAR of -2.04%). Moreover, the difference between the CAR of both deals (1.73%) is significant at the 1% level.

In line with Empirical Prediction 2, target firms also realize significant announcement period gains in deals with high informativeness. More specifically, targets in deals with high informativeness realize, on average, 9.43% higher CAR (significant at the 1% level) than targets in deals subject to low informativeness. In turn, Empirical Prediction 3 is supported, as the change in the degree of informed trading is higher in the shares of acquirers in deals with high informativeness compared to acquirers in deals with low informativeness.[3]

5. Multivariate Analysis of Public Target Acquisitions

5.1. Does target price informativeness lead to high returns?

To directly test Empirical Prediction 1, Table 4 covers multivariate regressions with the following specification:

$$\begin{aligned} Acquirer\ CAR_i &= \alpha_1 + \alpha_2 High\ Relative\ Target\ Informativeness_i \\ &+ \sum_{j=1}^{k} \beta_j X_{ij} + \varepsilon_i \end{aligned} \tag{2}$$

Where the sign and magnitude of α_2 reflect the CAR difference between M&As subject to high informativeness and M&As subject to low informativeness. If our main empirical prediction holds, then α_2 should be positive and significant. $\sum_{j=1}^{k} \beta_j X_{ij}$ represents the effect of the control factors and ε_i is a white noise error term.

[3] Interestingly, acquirer advisory fees, as a percentage of deal value, are marginally larger in deals with high informativeness than in deals with lower informativeness.

Model (1) (of Table 4) does not control for industry and year effects, while Model (2) controls for such factors. To control for the effect of the target's pre-acquisition performance, Model (3) includes an additional variable (Target Profit) and is estimated on a relatively smaller sample (888 deals), for which the target's pre-acquisition EBIT is reported by Thomson One.[4]

The three reported models support Empirical Prediction 1. More specifically, acquirers in deals with high informativeness realize, on average, 1% to 1.5% higher CAR than acquirers in deals with low informativeness.

(Insert Table 4 about here)

Table 5 presents the output of the multivariate analysis of the target's CAR. The reported models cover the same independent variables reported in Table 5. The empirical evidence from Models (1), (2), and (3) supports our main empirical prediction regarding the target gains from high price informativeness. In particular, targets in deals with high informativeness realize, on average, 3.8% to 5% higher CAR than targets in deals with low informativeness. Consequently, these reports support Empirical Prediction 2, suggesting that targets subject to relatively high informed trading tend to receive a significant share of the synergies.

(Insert Table 5 about here)

The results reported in Appendix 2 also support Empirical Predictions 1 and 2, with *Informativeness Dispersion* as the treatment variable. These results show that M&As in which the target has a high degree of price informativeness *and* the acquirer has a low degree of price informativeness are characterized by a 1% increase in acquirers' CAR (Models 1 and 2) and a 3% increase in targets' CAR (Models 3 and 4).

[4] In addition to the various firm and deal characteristics, the reported models also control for deals announced on Fridays, following evidence by Louis and Sun (2010), among others, that equity investors are less attentive to takeover announcements on that day.

Overall, the support for Empirical Predictions 1 and 2 is in line with our main conjecture that the relatively high price informativeness in the target's shares facilitates the realization of high synergies that are shared by both acquirer and target.

5.2. Informed trading or target returns?

Our main empirical conclusion up to this point is that the high relative informativeness in the target's share price allows both acquiring and target firms to realize high wealth gains from M&A transactions. To further validate this conclusion, we examine whether the wealth effect of target price informativeness is independent from the wealth effect of variations in the target firm's returns. For instance, in the Betton et al. (2014) model, the increase in the target's pre-acquisition run-up reflects investor expectations of potentially high synergies to be realized from the deal.

We argue that the wealth effect of the high informed trading per se is different from the wealth effects arising from the sign or magnitude of target price movements. That is, our main conjecture is that the presence of high informed trading in the target's shares offers useful input for the design and completion of the M&As, irrespective of whether such trading reflects positive or negative expectations. Merging firms can combine the information reflected in the prevailing prices with their own private information in further adjusting takeover plans. In the presence of negative feedback, merging firms can adjust potential errors in their takeover-related investment strategies. Moreover, the presence of positive market feedback might alert merging firms to potentially overlooked synergy-creating aspects of their deals.

In Tables 4 and 5, we report models (4 and 5 in each table) that control for both linear and non-linear effects of the merging firms' pre-announcement stock returns. Interestingly, the wealth effect of high relative target price informativeness remains both statistically and economically

significant after controlling for the effect of the merging firms' pre-acquisition returns. The results in Appendix 2 also support this conclusion.

5.3. Do acquirers' stocks become more informative?

Stock market investors must be selective in their information collection efforts. This is not only due to the limitations in attention and cognitive abilities, which are well-documented in the psychological literature (Kahneman 1973), but is also driven by practical necessities. As discussed by Hong et al. (2000) and Chan and Hameed (2006), the high fixed costs of information acquisition lead analysts to limit their focus to a subset of securities. Because the target's business activities become a significant part of the acquirer's investments after the acquisition, Tehranian et al. (2014) document a tendency for analysts covering the target firm to keep covering the acquirer after the target is delisted. In the presence of fixed costs of information collection, we expect equity investors who spend considerable resources in collecting relevant information about the target firm to shift their focus to the acquiring firm during the post-acquisition period.

In Table 6, we estimate the following specification:

$$\Delta\, Acquirer\ Informativeness_i = \alpha_1 + \alpha_2 High\ Relative\ Target\ Informativeness_i + \sum_{j=1}^{k} \beta_j X_{ij} + \varepsilon_i \qquad (3)$$

The coefficient α_2 in the specification above is positive and statistically significant, suggesting a 7% to 9% increase in the acquirer's degree of non-synchronized trading in deals with relatively high informativeness compared to deals with relatively low informativeness.

(Insert Table 6 about here)

This result supports our conjecture of a spillover in informed trading from the target to the acquirer in the post-acquisition period. The results in Appendix 2 with *Informativeness Dispersion* as the treatment variable provide qualitatively similar conclusions.

5.4. Does it pay to hire expensive advisors in public target deals?

To test Empirical Prediction 3a, Model (1) in Table 7 has the following specification:

$$Acquirer\ CAR_i = \alpha_1 + \alpha_2 Top\ Tier\ Advisor_i + \alpha_3 Top\ Tier\ Advisor_i \times High\ Relative\ Target\ Informativenness_i + \sum_{j=1}^{k} \beta_j X_{ij} + \varepsilon_i \quad (4)$$

In particular, α_2 refers to the additional effect of the presence of a top-tier advisor on the acquirer's CAR relative to the absence of such advisors in the case of low relative target informativeness. $\alpha_2 + \alpha_3$ represents this additional effect in the presence of relatively high target informativeness. Accordingly, the sign and magnitude of α_3 represent the added value/reduced value that high informativeness provides to wealth effects of top-tier advisor presence.

The reported evidence in Model (1) does not support Empirical Prediction 3a. The deals including top-tier acquirer financial advisors and in which the target is subject to a relatively low degree of price informativeness have, on average, 4.5% higher CAR relative to counterpart deals not including top-tier advisors. However, this positive wealth effect is offset in the group of deals in which the target is subject to relatively low informed trading. We apply the Wald test on the restriction that α_2 and α_3 have the equal magnitudes with opposing signs. The null hypothesis is not rejected with a *p*-value of 0.14. Accordingly, our results support the view that high relative informativeness in the target's shares limits the effectiveness of top-tier advisors in delivering added value to acquirers.

To test Empirical Prediction 3b, Models (2) and (3) have the following specification:

$$Acquirer\ CAR_i = \alpha_1 + \alpha_2 dvisor\ Fees\ Percentage_i + \alpha_3 Advisor\ Fees\ Percentage_i \times High\ Relative\ Target\ Informativenness_i + \sum_{j=1}^{k} \beta_j X_{ij} + \varepsilon_i \quad (5)$$

α_2 represents the wealth effect of a one-point increase in the percentage of acquirer financial advisor fees to the deal value on the acquirer's CAR. α_3 represents the additional wealth effect of advisory fees in deals subject to high informativeness. That is, the effect of advisory fees in deals with high informativeness is $\alpha_2 + \alpha_3$. As a control factor, we construct a dummy variable that is assigned the value of 1 in the presence of a top-tier advisor, and 0 otherwise. In classifying advisors as top-tier, we follow the classification provided by Golubov et al. (2012). Model (2) does not control for year and industry effects, while Model (3) controls for such factors.

(Insert Table 7 about here)

The evidence reported in Table 8 does not support Empirical Prediction 3b. In particular, our results suggest that a percentage point increase in the percentage of advisory fees to the deal value is, on average, associated with a 5% to 6% increase in the acquirer's announcement period CAR in the group of deals with relatively low informativeness. However, this positive association between advisory fees and the acquirer's CAR seems to be neutralized in the group of deals characterized by high informativeness. We apply the Wald test to the null hypothesis of no significant effect of advisory fees on the acquirers in the group of deals with high informativeness, i.e. $\alpha_2 = -\alpha_3$, and the resulting p-value is 0.44 in Model (1) and 0.32 in Model (2). Taken together, our results suggest that the high relative informativeness in the target's shares reduces the benefits arising from paying high advisory fees.[5]

5.5. Do acquirers hire top-tier advisors in the presence of high informativeness?

The models reported in Table 8 test a direct implication of the support for Empirical Prediction 3a in Section 5.4. Given that the reliance on top-tier advisors adds limited value to the acquiring firm

[5] In untabulated results, we re-estimate specification (4) with *Informativeness Dispersion* as the treatment variable. The results are economically similar to the results in Table 7 but statistically insignificant.

when the target is already subject to relatively high informativeness, we expect acquirers to be less likely to hire top-tier advisors in the presence of high relative informativeness in the target's shares.

(Insert Table 8 about here)

The evidence from the two models reported in Table 8 supports these predictions both before controlling for year and sector effects (Model 1) and after controlling for these effects (Model 2). In both models, the relative high informativeness in the target's shares is negatively associated with the presence of a top-tier advisor in the deal. In untabulated robustness checks, we re-estimated the *High Relative Target Informativeness* variable by re-estimating the acquirer's and the target's Roll R^2 for the -240 to -140 day-window preceding the announcement, in order to ensure that the assessment of the level of informativeness in the target's share price precedes the advisor hiring decision. The results from these robustness checks are qualitatively similar to the ones reported in Table 8.[6]

6. Matching-Based Results

6.1. Propensity score matching

To assess the robustness of our conclusions, we apply the PSM analysis (Smith and Todd 2005) to our sample. In the context of our analysis of acquirers' CAR, for instance, this process consists of matching comparable deals with high and low informativeness and estimating the Average Treatment Effect on the Treated (*ATT*) as:

$$ATT = E\big(Acquirer\ CAR_{High\ Relative\ Target\ Informativeness} - Acquirer\ CAR_{Low\ Relative\ Target\ Informativeness} \big| Higher\ Informativeness = 1\big) \quad (6)$$

[6] These results are available from the authors upon request.

In particular, *ATT* is the average effect of high relative target informativeness on the acquirers' CAR relative to the counterfactual case in which the deal is subject to low informativeness. Due to the lack of access to counterfactual observations, Rosenbaum and Rubin (1985, 1983) suggest that conditioning on known propensity scores $P(W)$ estimated using observable characteristics W removes the bias due to these observed covariates. In our analysis, such propensity scores are estimated via a Logit model in which the dependent variable (treatment) is the presence of high deal informativeness. Accordingly, the acquirer CAR of comparable deals with low informativeness is a proxy for the missing counterfactuals.

Empirically, we estimate *ATT* on the matched sample as:

$$ATT = \frac{\sum_{i:\, High\ Relative\ Target\ \ Informativeness=1}\{Acquirer\ CAR_i(\ High\ Relative\ Target\ Informativeness_i) - Acquirer\ CAR_i(Low\ Relative\ Target\ Informativeness)\}}{N} \quad (7)$$

where N is the number of matched pairs. To test the null hypothesis of no treatment effect, we use the standard errors developed by Abadie and Imbens (2006). This follows from Abadie and Imbens' (2008) simulations that highlight the superior performance of the variance estimator they developed (Abadie and Imbens 2006), even in small samples.

Table 9 presents the outcome of the PSM analysis of the effect of high deal informativeness on acquirer CAR, target CAR, and the change in the acquirer's degree of informed trading in post-acquisition trading. Panel A presents the Logit model used to estimate the propensity score. Panels B, C, and D present the estimation of the *ATT* of high informativeness on acquirer CAR, target CAR, and the change in the acquirer's informed trading, respectively. Panel E describes the balancing of the main covariates through the matching exercise.

(Insert Table 9 about here)

The rich matching exercise consists of matching five untreated observations (i.e. deals with low informativeness) to each treated observation (i.e. a deal with high informativeness), provided that the propensity scores of matched observations are within 15% (caliper of 0.15) of the standard

deviation of overall propensity scores. Accordingly, the resulting matched sample covers 85 treated observations and 425 untreated ones.

As shown in Panel B, the *ATT* of high informativeness on the acquirer CAR is statistically significant (at the 5% level). More specifically, the acquirer CAR in deals subject to high informativeness is 3.29% higher than the average CAR of the five comparable deals subject to low informativeness.

The empirical evidence from Panel C complements the results of both the univariate and multivariate analyses by emphasizing the gains realized by target firms subject to a relatively high degree of informed trading. The matching results in Panel D are also in line with the multivariate evidence from Table 6 by highlighting the growth in the acquirers' degree of informed trading in the year following the acquisition of targets with relatively high informativeness. Panel E, in turn, highlights the success of the matching exercise in balancing the key covariates on the matched sample. Interestingly, none of the differences between the mean levels of covariates between treated and untreated observations are statistically significant in the matched sample.

6.2. Sensitivity analysis

Because omitting relevant variables from the matching exercise can lead to biased *ATT* estimates (Heckman and Robb 1985), the Rosenbaum (2002) sensitivity analysis is added to the PSM by quantifying the effect that a missing covariate should have in the Logit model to invalidate the PSM-based conclusions. In this analysis, the parameter Γ is:

$$\frac{1}{\Gamma} \leq \frac{\frac{P_i(High\ Relative\ Target\ Informativeness = 1|W)}{1 - P_i(High\ Relative\ Target\ Informativeness = 1|W)}}{\frac{P_j(High\ Relative\ Target\ Informativeness = 1|W)}{(1 - P_j(High\ Relative\ Target\ Informativeness = 1|W))}} \leq \Gamma \qquad (8)$$

At $\Gamma = 1$, the assignment of high informativeness for two matched deals is equivalent to a random assignment. As Γ increases, this assignment departs from the random procedure. Accordingly, the fraction of odds can be written as:

$$\frac{\frac{P_i(High\ Relative\ Target\ Informativeness = 1|W)}{1 - P_i(High\ Relative\ Target\ Informativeness = 1|W)}}{\frac{P_j(High\ Relative\ Target\ Informativeness = 1|W)}{(1 - P_j(High\ Relative\ Target\ Informativeness = 1|W))}} \quad (9)$$

$$= \frac{exp(k(W) + \gamma u_i)}{exp(k(W) + \gamma u_j)} = exp\{\gamma(u_i - u_j\}$$

$\gamma \geq 0$ with $k(W)$ representing the effects of observed covariates which cancel out. u_i and u_j are the unobserved covariates influencing the presence of the treatment for units i and j respectively. γ represents the influence of these covariates on the choice of treatment. Normalizing $u = u_i - u_j$ between 0 and 1, Γ can be written as $\Gamma = e^{\gamma}$. Consequently, the treatment effects that maintain their significance at high levels of Γ are relatively insensitive to the effect of a missing covariate.

In Panels B, C, and D, we report the Γ levels at which the estimated *ATT*s cease to be significant at the 5% and 10% levels. For acquirer and target CAR, for instance, the estimated treatment effects cease to be significant at the 10% level at Γ of 1.5. In turn, the positive treatment effect of high informativeness on the change in the acquirer's degree of price informativeness in the post-acquisition period ceases to be significant at a Γ level of 2.26. Overall, these Γ are in line with the levels reported in previous studies, such as Peel and Makepeace's (2012) analysis of the premia of accounting auditors, and Barbopoulos and Adra's (2016) analysis of the wealth effects of earnout financing in private target acquisitions. These authors consider Γ levels higher than 1.5 as indicators of conclusions that are relatively insensitive to the impact of missing covariates.

7. Does It Pay to Hire Top-Tier Advisors in Private Target Acquisitions?

To test Empirical Prediction 4, we construct a sample of private target acquisitions announced by U.S. public companies between January 2000 and December 2014. We impose the same restrictions as those discussed in Section 3 when it comes to acquirer's characteristics, deal friendliness, and completion. Due to the limited coverage of the private target data in SDC, we use the overall deal value in our analysis as a proxy for the target's size. We also impose the restriction that the acquirer's advisor name is reported in SDC. The resulting sample covers 818 deals, 289 of which include a top-tier financial advisor for the acquiring firm.[7]

We test Empirical Prediction 5 with the following specification:

$$Acquirer\ CAR_i = \alpha_1 + \alpha_2 Top\ Tier\ Advisor_i + \alpha_3 Top\ Tier\ Advisor_i \times High\ Acquirer\ Informativenness_i + \sum_{j=1}^{k} \beta_j X_{ij} + \varepsilon_i \quad (10)$$

in which the dummy variable *High Acquirer Informativeness* is assigned the value of 1 if the acquirer's level of $(1 - R^2)$ exceeds its 80th percentile, and 0 otherwise. The findings reported in Table 10 support Empirical Prediction 5. We find that top-tier advisors fail to provide added value to acquirers in the presence of low acquirer price informativeness (1.8% reduction in acquirer CAR relative to non-top-tier counterparts). Nevertheless, the presence of a top-tier financial advisor is associated with significant gains for acquiring firms subject to high price informativeness. More specifically, the coefficient associated with (Top Tier Advisor × High Acquirer Price Informativeness) is positive, significant, and larger in absolute value than the coefficient associated with (Top Tier Advisor). Accordingly, the presence of a top-tier financial advisor in the presence

[7] The time distribution and the descriptive statistics of the variables in the sample of private target acquisitions are not tabulated in the paper to conserve space. These figures are available from the authors upon request.

of high price informativeness in the acquirer's shares is associated with 2.2% (=5%-1.8%) higher acquirer CAR compared to cases where a top-tier advisor is not hired by the acquiring firm.

(Insert Table 10 about here)

Interestingly, our findings suggest that the presence of a top-tier advisor is a necessary condition for the acquiring firm to capitalize on its high price informativeness to realize shareholder gains. Specifically, deals with high acquirer share price informativeness without the presence of a top-tier advisor are associated with a 1.6% decline in acquirer CAR (significant at the 10% level) relative to deals with low share price informativeness. However, the presence of a top-tier advisor manages to increase these gains by 5%, which makes up for the initial losses. Taken together, our results suggest that the presence of top-tier advisors and high informativeness in the acquirer's share price have complementary roles in boosting acquirers' gains from private target acquisitions.

8. Conclusions

This paper complements a large array of both theoretical and empirical studies by providing novel evidence from the U.S. market for corporate control on the informative role of prices in guiding both investment decisions and advisory roles. Acquirers of targets subject to relatively high informed trading manage to design high-synergy deals that are, in turn, associated with significant announcement period increases in acquirer abnormal returns. The shareholders of targets subject to more informed trading than their acquirers enjoy the benefits derived from the informative aspect of their share prices and consequently earn part of the synergies in the form of higher abnormal returns. Our findings also highlight the presence of an informational spillover from target to acquiring firms after the acquisition announcement. That is, companies that acquire targets with

a higher level of informed trading tend to experience post-acquisition increases in their informed trading.

Our results also provide new insights on the role and valuation effects of financial advisors in M&As. We show that the effectiveness of top-tier financial advisors in M&As is sensitive to the informational context in which they operate. In public target M&As, the relatively high informativeness in the target's share limits the influence of top-tier, and often highly paid financial advisors in significantly delivering high value to their clients compared to their non-top-tier counterparts. In private target acquisitions, we show that top-tier advisors can add significant value relative to their non-top-tier counterparts only when the acquirer's share price provides significant informational input. Overall, we show that the extent to which price informativeness interacts with financial advice affects the efficient design of M&As and influences their overall wealth effects.

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Appendix 1 Definitions of Variables

Variable	Description	Source
Acquirer CAR (%)	The acquirer's 5-day (-2, 2) announcement period cumulative abnormal returns. The abnormal return in each day is the difference between the firm's returns and the value-weighted returns of NYSE firms.	Datastream + Authors' Estimations
Acquirer Market to Book Value	The market value of the acquirer 43 days before the acquisition, divided by its book value of equity from the most recent accounting statement prior to the bid announcement.	Datastream
Target Market to Book Value	The market value of the target 43 days before the acquisition, divided by its book value of equity from the most recent accounting statement prior to the bid announcement.	Datastream
Acquirer Market Value (m$)	The acquirer's market value of equity 43 days prior to the bid announcement, in millions of dollars.	Datastream
Acquirer Price Informativeness	1- Acquirer Roll R^2	Datastream + Authors' Estimations
Advisor Fees Percentage (%)	The advisory fees paid by the acquiring firm as a percentage of the deal value.	SDC
High Relative Target Informativeness	Dummy=1 if Relative Target Informativeness exceeds the 25th percentile, and 0 otherwise.	SDC
High Acquirer Informativeness	Dummy=1, if the level of Acquirer Price Informativeness exceeds the 80th percentile, and 0 otherwise.	Datastream + Authors' Estimations
Deal Value (m$)	The transaction value reported in millions of dollars	Datastream + Authors' Estimations
Acquirer Roll R^2	The R^2 estimated from the regression in Equation (1), whereby the dependent variable is the acquirer's daily returns for the (t-250; t-3) period, with t referring to the acquisition announcement day.	Datastream + Authors' Estimations
Acquirer RoE (%)	The acquirer's Return on Equity (RoE) in the calendar year preceding the acquisition announcement.	Datastream
Acquirer Acquisition Frequency	The number of other acquisitions announced by the acquirer during the same period covered in the sample.	SDC
Target Profit (%)	The target's pre-acquisition EBIT as a percentage of total assets in the calendar year preceding the acquisition announcement.	SDC
Acquirer Roll R^2	The R^2 from the regression of the acquirer's returns on both the market and sector returns. The latter returns are defined by Datastream as the local sector returns.	Datastream + Authors' Estimations
Blockholding	Dummy=1 if the target firm ends up forming a blockholding group with more than 5% of the firm created by the acquisition.	SDC
Cash	Dummy=1 if the consideration is 100% financed with cash, and 0 otherwise.	SDC
Δ Acquirer Informativeness	The difference between the acquirer's non-synchronized trading (1-Acquirer Roll R^2) after the acquisition announcement and its non-synchronized trading (1-Acquirer Roll R^2) before the acquisition announcement.	Datastream + Authors' Estimations
Diversifying	Dummy=1 if the acquirer and the target have different two-digit SIC codes, and 0 otherwise (FCSD).	SDC
Friday	Dummy=1 if the deal is announced on a Friday, and 0 otherwise.	SDC
Mixed	Dummy=1 if the consideration is financed by a mix of cash and stock, and 0 otherwise.	SDC
Relative Target Informativeness	(1- Target Roll R^2)-(1- Acquirer Roll R^2)	Datastream + Authors' Estimations
Stock	Dummy=1 when the consideration is 100% financed with stock, and 0 otherwise.	SDC
Target CAR (%)	The target's 5-day (-2, 2) announcement period cumulative abnormal returns. The abnormal return in each day is the difference between the firm's returns and the value-weighted returns of NYSE firms.	Datastream + Authors' Estimations
Informativeness Dispersion	Dummy=1 when the acquirer's Price Informativeness is below 0.82 AND the target's Price Informativeness is above 0.82, and 0 otherwise.	Datastream + Authors' Estimations
Target Market Value (m$)	Target's market value of equity 43 days prior to bid announcement, in	Datastream

	millions of dollars.	
Target Price Informativeness	1- Target Roll R^2	Datastream + Authors' Estimations
Target Roll R^2	The R^2 estimated from the regression in Equation (1), whereby the dependent variable is the target's daily returns for the (t-250; t-3) period, with t referring to the acquisition announcement day.	Datastream + Authors' Estimations
Top Tier Advisor	Dummy=1 if the acquirer's advisors include any of the following companies: Goldman Sachs, Merrill Lynch (now Bank of America Merrill Lynch), Morgan Stanley, JP Morgan, Citi/Salomon Smith Barney, Credit Suisse First Boston, Lehman Brothers (now Barclays Capital), and Lazard), and 0 otherwise.	SDC
Acquirer Returns	The average daily acquirer returns from the period ranging from 240 to 3 days before the acquisition announcement.	Datastream
Target Returns	The average daily target returns from the period ranging from 240 to 3 days before the acquisition announcement.	Datastream

Appendix 2 Estimations with an alternative information proxy

The multivariate analysis of the acquirers' CAR with an alternative informativeness proxy

Dependent Variable	Acquirer CAR	Acquirer CAR	Target CAR	Target CAR	Δ Acquirer Informativeness	Δ Acquirer Informativeness
Explanatory Variable\Model (.)	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	5.596***	4.839**	21.514***	20.474***	0.090**	0.088**
	(2.081)	(2.152)	(6.726)	(5.449)	(0.039)	(0.039)
Informativeness Dispersion	1.212**	1.323**	3.525**	3.316*	0.020**	0.027**
	(0.590)	(0.637)	(1.790)	(1.782)	(0.011)	(0.012)
Stock	-0.749	-0.006	-1.388	-3.121*	0.003	0.018
	(0.789)	(0.795)	(1.910)	(1.682)	(0.014)	(0.014)
Cash	0.150	0.528	8.529***	9.617***	0.053***	0.049***
	(0.857)	(0.878)	(3.083)	(2.778)	(0.018)	(0.019)
Blockholding	-2.754***	-3.138***	4.460	4.960*	-0.017	-0.023
	(0.964)	(0.981)	(3.348)	(2.924)	(0.018)	(0.018)
Acquirer Market to Book Value	-0.328*	-0.229	0.901	0.468	-0.003	0.002
	(0.186)	(0.180)	(0.739)	(0.486)	(0.003)	(0.003)
Target Market to Book Value	0.246**	0.219*	-0.521	0.207	-0.004**	-0.003
	(0.128)	(0.126)	(0.332)	(0.279)	(0.002)	(0.002)
Diversifying	-0.312	-0.337	-1.560	-1.063	0.029***	0.027**
	(0.595)	(0.588)	(1.716)	(1.646)	(0.011)	(0.011)
ln(Target Market Value)	-0.173	0.156	-5.884***	-4.902***	0.001	0.004
	(0.304)	(0.339)	(1.111)	(0.966)	(0.005)	(0.005)
ln(Acquirer Market Value)	-0.218	-0.401	4.130***	3.608***	-0.032***	-0.033***
	(0.283)	(0.296)	(0.935)	(0.954)	(0.005)	(0.005)
Friday	-0.708	-0.882	-1.563	-2.623	-0.004	0.001
	(0.689)	(0.694)	(1.784)	(1.866)	(0.014)	(0.015)
Acquirer ROE	0.032*	0.010	-0.044	0.026	0.001	0.001
	(0.018)	(0.017)	(0.074)	(0.059)	(0.001)	(0.001)
Acquirer Acquisition Frequency	0.154	-0.014	-0.857**	-0.433	0.001	0.001
	(0.153)	(0.178)	(0.416)	(0.473)	(0.003)	(0.003)
Target Profit		-0.040*		-0.068		0.001
		(0.021)		(0.067)		(0.001)
Acquirer Return		5.244*		13.347*		-0.076**
		(2.759)		(7.029)		(0.036)
Target Return		5.213**		-39.485***		0.002
		(2.227)		(12.037)		(0.030)
Acquirer Return x Acquirer Return		-12.382**		-26.278*		-0.122*
		(5.508)		(12.217)		(0.065)
Target Return x Target Return		-5.739		56.211**		-0.108**
		(3.566)		(24.986)		(0.044)
Year Effects	YES	YES	YES	YES	YES	YES
Industry Effects	YES	YES	YES	YES	YES	YES
N	918	888	918	888	918	888
Adjusted R-Squared	0.07	0.10	0.16	0.25	0.26	0.30

Note: This table reports six models explaining the variation in the acquirers' and targets' CAR, in addition to the change in the acquirers' price informativeness after the acquisition announcement. The variation in the acquirers' CAR is explained in Models (1) and (2). The variation in the targets' CAR is explained in Models (3) and (4). The variation in the change in the acquirers' price informativeness is explained in Models (5) and (6). The standard errors reported in parentheses are corrected for heteroskedasticity using White (1980) heteroskedasticity consistent standard errors. *N* indicates the number of observations. ***, **, and * represent significance at the 1%, 5%, and 10% levels respectively. Please refer to Appendix 1 for an accurate description of the variables.

Table 1 Annual distribution of the sample

Panel A						
Year	All	Focused	Diversifying	Stock	Cash	Mixed
2000	75	32	43	46	9	20
2001	76	44	32	42	10	24
2002	47	18	29	11	15	21
2003	59	26	33	17	19	23
2004	78	34	44	27	22	29
2005	70	31	39	12	16	42
2006	72	25	47	11	38	23
2007	79	35	44	10	40	29
2008	38	15	23	8	18	12
2009	47	17	30	14	15	18
2010	66	30	36	14	35	17
2011	43	16	27	10	18	15
2012	50	22	28	7	23	20
2013	59	30	29	12	23	24
2014	59	31	28	16	18	25
N	918	406	512	257	319	342
%	100.00	44.23	55.77	28.00	34.75	37.25

Panel B												
Year	Industrials	Healthcare	Consumer Staples	Materials	Media	Retail	Consumer Products	High Technology	Energy and Power	Telecommunications	Financials	Real Estate
2000	7	4	2	4	4	2	5	28	3	1	14	1
2001	3	11	1	3	2	0	6	24	7	4	13	2
2002	3	5	0	2	3	1	0	17	4	2	6	4
2003	4	6	1	0	1	1	3	15	1	2	22	3
2004	3	11	4	2	7	4	5	14	7	1	16	4
2005	7	9	2	2	1	0	3	18	5	7	14	2
2006	3	9	2	2	4	2	2	18	4	2	17	7
2007	3	17	2	5	4	2	3	17	4	4	16	2
2008	2	8	0	2	0	1	1	11	3	2	7	1
2009	2	8	2	3	1	1	4	13	4	4	5	0
2010	5	5	1	2	0	0	3	27	9	2	12	0
2011	2	6	0	4	2	0	1	8	7	3	7	3
2012	5	7	2	2	1	1	3	10	4	4	11	0
2013	3	9	2	2	1	3	1	8	5	2	18	5
2014	4	9	4	5	4	3	2	8	5	4	9	2
N	56	124	25	40	35	21	42	236	72	44	187	36
%	6.10	13.51	2.72	4.36	3.81	2.29	4.58	25.71	7.84	4.79	20.37	3.92

Note: Panel A represents the annual distribution of domestic public target acquisitions announced by U.S. public companies between January 1st, 2000, and December 31st, 2014. For each year, we present the total number of deals, the number of focused acquisitions (in which the acquirer and the target have the same two-digit SIC code), the number of diversifying acquisitions (in which the acquirer and the target have different two-digit SIC numbers), and the number of deals settled in stock, cash, and a mix of both. Panel B covers the yearly distribution of acquisitions with respect to the target's sector. The sectors covered by SDC are: Industrials, Healthcare, Consumer Staples, Materials, Media and Entertainment, Retail, Consumer Products, High Technology, Energy and Power, Telecommunications, Financials, and Real Estate. *N* is the number of deals in each category and (%) is the percentage of deals in each category relative to the total number of deals.

Table 2 Descriptive statistics

Variable	*N*	Mean	Median	Max	Min	SD
Acquirer CAR (%)	918	-1.16	-0.68	29.61	-51.23	8.59
Target CAR (%)	918	23.37	19.79	285.71	-50.19	25.00
Target Market Value (m$)	918	1837.22	507.03	53677.34	1.19	4783.65
Acquirer Market Value (m$)	918	17579.90	3698.315	532426.70	16.55	38758.77
Acquirer Market to Book Value	918	2.72	1.98	15.00	0.01	2.43
Deal Value (m$)	918	2631.77	784.30	68445.40	3.41	6372.43
Target Market to Book Value	918	3.04	2.08	15.00	0.01	3.00
Target Price Informativeness	918	0.76	0.82	0.97	0.12	0.19
Acquirer Price Informativeness	918	0.72	0.75	0.97	0.23	0.17
Δ Acquirer Informativeness	918	-0.08	-0.07	0.46	-0.65	0.18
Relative Target Informativeness	918	0.04	0.04	0.64	-0.77	0.20
Acquirer RoE (%)	918	12.00	12.50	119.32	-98.79	21.27
Acquirer Acquisition Frequency	918	0.64	0.00	17.00	0.00	1.50
Acquirer Advisor Fees (%)	212	0.67	0.52	5.20	0.01	0.67
Target Profit (%)	888	1.78	3.98	221.80	-100.00	20.86

Note: This table represents descriptive statistics of each of the continuous variables in the sample. For each variable, we report the number of available observations in addition to the mean, median, maximum, minimum, and standard deviation values. The market-to-book values are winsorized between a maximum of 15 and a minimum of 0.01. Moreover, the target profit variable, which is the pre-acquisition Earnings before Interest as a percentage of total assets, is winsorized at a minimum of 100%. Please refer to Appendix 1 for a detailed description of the variables.

Table 3 Univariate analysis

Variable	(a) Deals with High Relative Target Informativeness (*N*=459)	(b) Deals with Low Relative Target Informativeness (*N*=459)	(a)-(b)
Acquirer CAR	-0.31	-2.04***	1.73***
Target CAR	28.00***	18.57***	9.43***
Target Market Value (m$)	1435.49	2253.21	-817.72***
Acquirer Market Value (m$)	20952.08	14088.09	6863.99***
Acquirer Market to Book Value	2.76	2.68	0.08
Deal Value (m$)	2064.45	3219.22	-1154.77***
Target Market to Book Value	2.88	3.20	-0.32*
Target Price Informativeness	0.82	0.70	0.12***
Acquirer Price Informativeness	0.64	0.80	-0.16***
Δ Acquirer Informativeness	-0.04	-0.13	0.09***
Acquirer RoE (%)	14.10	9.82	4.28***
Acquirer Acquisition Frequency	0.63	0.64	-0.01
Acq. Advisor Fees Percentage (%)	0.79	0.61	0.18*
Target Profit (%)	1.55	2.03	-0.48

Note: This table presents the univariate analysis of the continuous variables used in our analysis. For each variable, the mean level is presented for the group of deals with high relative target informativeness and the group of deals with low relative target informativeness. The fourth column presents the differences between the variables in each group and the significance of such difference. *N* indicates the number of observations. ***, **, and * represent significance at the 1%, 5%, and 10% levels respectively. Please refer to Appendix 1 for an accurate description of the variables.

Table 4 Multivariate analysis of acquirers' CAR

Dependent Variable	Acquirer CAR	Acquirer CAR	Acquirer CAR	Acquirer CAR	Acquirer CAR
Explanatory Variable\Model (.)	(1)	(2)	(3)	(4)	(5)
Intercept	2.429	3.154	1.742	-0.042	1.377
	(1.900)	(2.163)	(2.159)	(2.421)	(2.468)
High Relative Target Informativeness	1.109**	1.183**	1.492**	1.213*	1.197*
	(0.575)	(0.602)	(0.617)	(0.700)	(0.702)
Stock	-1.165	-0.790	-0.520	-0.020	0.162
	(0.774)	(0.782)	(0.798)	(0.789)	(0.787)
Cash	-0.466	0.141	0.752	0.521	0.285
	(0.790)	(0.859)	(0.847)	(0.880)	(0.888)
Blockholding	-2.996	2.618***	-2.368**	-2.800***	-2.901****
	(0.990)	(0.973)	(0.967)	(0.982)	(0.988)
Acquirer Market to Book Value	-0.396**	-0.320*	-0.322*	-0.318*	-0.255
	(0.176)	(0.188)	(0.195)	(0185)	(0.181)
Target Market to Book Value	0.202*	0.272**	0.241*	0.185	0.223
	(0.121)	(0.130)	(0.135)	(0.132)	(0.129)
Diversifying	-0.101	-0.180	-0.386	-0.241	-0.291
	(0.584)	(0.593)	(0.610)	(0.596)	(0.593)
ln(Target Market Value)	0.044	-0.177	-0.050	0.033	-0.002
	(0.303)	(0.313)	(0.350)	(0.335)	(0.340)
ln(Acquirer Market Value)	-0.275	-0.133	-0.108	-0.202	-0.227
	(0.284)	(0.297)	(0.309)	(0.306)	(0.307)
Friday	-0.815	-0.660	-0.647	-1.019	-0.919
	(0.696)	(0.689)	(0.712)	(0.645)	(0.687)
Acquirer ROE	0.038**	0.030*	0.029	0.024	0.011
	(0.183)	(0.018)	(0.019)	(0.017)	(0.017)
Acquirer Acquisition Frequency	0.154	0.133	0.018	0.002	-0.024
	(0.160)	(0.155)	(0.173)	(0.176)	(0.178)
Target Profit			-0.018	-0.028	-0.035*
			(0.025)	(0.021)	(0.021)
Acquirer Return				1.345	5.064*
				(2.654)	(2.788)
Target Return				4.288**	5.593***
				(2.058)	(2.211)
Acquirer Return x Acquirer Return					-9.961*
					(5.463)
Target Return x Target Return					-5.677
					(3.527)
Year Effects	NO	YES	YES	YES	YES
Industry Effects	NO	YES	YES	YES	YES
N	918	918	888	888	888
Adjusted R-Squared	0.05	0.07	0.07	0.10	0.11

Note: This table presents five models explaining the variation in the acquirer 5-day CAR, with specific emphasis on the wealth effect of high price informativeness. Model (1) does not control for year and industry effects, while Model (2) does control for them. Model (3) is estimated on a relatively smaller sample for which the target-specific pre-acquisition level of profitability is available. Models (4) and (5) explain the variation in the acquirer CAR while controlling for the linear and non-linear effects of the merging firms' pre-acquisition stock market returns. The standard errors reported in parentheses are corrected for heteroskedasticity using the White (1980) heteroskedasticity consistent standard errors. *N* indicates the number of observations. ***, **, and * represent significance at the 1%, 5%, and 10% levels respectively. Please refer to Appendix 1 for an accurate description of the variables.

Table 5 Multivariate analysis of targets' CAR

Dependent Variable	Target CAR	Target CAR	Target CAR	Target CAR	Target CAR
Explanatory Variable\Model (.)	(1)	(2)	(3)	(4)	(5)
Intercept	18.302***	17.969***	20.815***	20.234***	17.632***
	(6.166)	(6.359)	(6.874)	(7.269)	(6.330)
High Relative Target Informativeness	5.174***	4.202**	3.800**	3.913**	3.458**
	(1.708)	(1.778)	(1.754)	(1.679)	(1.630)
Stock	-0.744	-1.269	-2.498	-2.210	-3.088*
	(1.774)	(1.969)	(1.806)	(1.913)	(1.694)
Cash	10.394***	8.289***	7.768***	7.658***	9.371***
	(3.076)	(3.108)	(2.979)	(3.081)	(2.796)
Blockholding	4.254	4.887	3.920	3.985	5.226*
	(3.561)	(3.239)	(3.596)	(3.408)	(2.892)
Acquirer Market to Book Value	1.078	0.886	0.697	0.698	0.412
	(0.717)	(0.744)	(0.730)	(0.697)	(0.489)
Target Market to Book Value	-0.381	-0.454	-0.322	0.208	0.212
	(0.334)	(0.331)	(0.366)	(0.292)	(0.280)
Diversifying	-1.932	-1.455	-1.480	-1.884	-1.153
	(1.610)	(1.701)	(1.684)	(1.789)	(1.650)
ln(Target Market Value)	-5.429***	-5.9449***	-5.5810***	-5.672***	-4.988***
	(1.044)	(1.130)	(1.046)	(1.002)	(0.983)
ln(Acquirer Market Value)	3.778***	4.173***	4.027***	4.126***	3.713***
	(0.980)	(0.971)	(1.012)	(0.952)	(0.946)
Friday	-1.704	-1.535	-2.004	-3.211*	-2.880
	(1.841)	(1.787)	(1.920)	(1.906)	(1.853)
Acquirer ROE	-0.054	-0.046	-0.019	-0.017	0.025
	(0.074)	(0.075)	(0.074)	(0.067)	(0.059)
Acquirer Acquisition Frequency	-0.601	-0.805**	-0.381	-0.468	-0.320
	(0.416)	(0.417)	(0.475)	(0.460)	(0.465)
Target Profit			-0.120	-0.087	-0.064
			(0.078)	(0.074)	(0.067)
Acquirer Return				9.380	14.104**
				(5.905)	(7.159)
Target Return				-26.943***	-39.278***
				(8.896)	(12.051)
Acquirer Return x Acquirer Return					-25.342*
					(14.494)
Target Return x Target Return					55.924**
					(24.982)
Year Effects	NO	YES	YES	YES	YES
Industry Effects	NO	YES	YES	YES	YES
N	918	918	888	888	888
Adjusted R-Squared	0.14	0.15	0.16	0.21	0.25

Note: This table presents five models explaining the variation in the target 5-day CAR, with specific emphasis on the wealth effect of high price informativeness. Model (1) does not control for year and industry effects, while Model (2) does control for them. Model (3) is estimated on a relatively smaller sample for which the target-specific pre-acquisition level of profitability is available. Models (4) and (5) explain the variation in the target CAR while controlling for the linear and non-linear effects of the merging firms' pre-acquisition stock market returns. The standard errors reported in parentheses are corrected for heteroskedasticity using the White (1980) heteroskedasticity consistent standard errors. *N* indicates the number of observations. ***, **, and * represent significance at the 1%, 5%, and 10% levels respectively. Please refer to Appendix 1 for an accurate description of the variables.

Table 6 Multivariate analysis of the change in acquirers' informativeness

Dependent Variable	Δ Acquirer Informativeness	Δ Acquirer Informativeness	Δ Acquirer Informativeness
Explanatory Variable\Model (.)	(1)	(2)	(3)
Intercept	0.103***	-0.060*	-0.078**
	(0.032)	(0.036)	(0.035)
High Relative Target Informativeness	0.093***	0.069***	0.074***
	(0.010)	(0.009)	(0.010)
Stock	-0.004	0.020	0.027**
	(0.014)	(0.013)	(0.013)
Cash	0.060***	0.040**	0.051***
	(0.018)	(0.017)	(0.017)
Blockholding	0.011	-0.001	-0.002
	(0.019)	(0.017)	(0.017)
Acquirer Market to Book Value	-0.002	-0.002	-0.001
	(0.003)	(0.002)	(0.002)
Target Market to Book Value	-0.002	-0.002	-0.003**
	(0.002)	(0.002)	(0.0017)
Diversifying	0.027***	0.029***	0.025***
	(0.011)	(0.010)	(0.010)
ln(Target Market Value)	0.003	-0.0004	0.004
	(0.005)	(0.005)	(0.005)
ln(Acquirer Market Value)	-0.035***	-0.027***	-0.030***
	(0.005)	(0.004)	(0.004)
Friday	-0.006	0.0004	0.004
	(0.014)	(0.013)	(0.013)
Acquirer ROE	0.001	0.0002	0.001
	(0.001)	(0.0002)	(0.001)
Acquirer Acquisition Frequency	0.006*	0.0004	-0.003
	(0.003)	(0.003)	(0.003)
Target Profit			0.0002
			(0.0002)
Year Effects	NO	YES	YES
Industry Effects	NO	YES	YES
N	918	918	888
Adjusted R-Squared	0.18	0.41	0.43

Note: This table presents three models explaining the variation in the acquirers' price informativeness after the deal announcement, with specific emphasis on the effect of high target relative price informativeness before the announcement. The dependent variable Δ Acquirer Informativeness is the difference between the acquirer's degree of non-synchronized trading during the 250 trading days following the acquisition announcement and this level during the 250 days preceding the acquisition announcement. Model (1) does not control for year and industry effects, while Model (2) controls for them. Model (3) is estimated on a relatively smaller sample for which the target-specific pre-acquisition level of profitability is available. The standard errors reported in parentheses are corrected for heteroskedasticity using the White (1980) heteroskedasticity consistent standard errors. *N* indicates the number of observations. ***, **, and * represent significance at the 1%, 5%, and 10% levels respectively. Please refer to Appendix 1 for an accurate description of the variables.

Table 7 Multivariate analysis of acquirers' CAR with emphasis on the role of the acquirer's financial advisors

Dependent Variable	Acquirer CAR	Acquirer CAR	Acquirer CAR
Explanatory Variable\Model (.)	(1)	(2)	(3)
Intercept	2.684	0.189	-4.184
	(2.316)	(7.841)	(14.366)
Top Tier Advisor	4.902**	2.419	-1.857
	(1.615)	(2.268)	(2.505)
Top Tier Advisor × High Relative Target Informativeness	-3.346**		
	(1.660)		
High Relative Target Informativeness	1.557 **	5.940***	6.155***
	(0.779)	(1.836)	(2.388)
Acquirer Advisor Fees Percentage		5.237**	6.634***
		(2.396)	(2.676)
Acquirer Advisor Fees Percentage × High Relative Target Informativeness		-6.488**	-7.810***
		(2.854)	(3.131)
Stock	-1.109	-0.256	-0.536
	(0.824)	(1.509)	(1.569)
Cash	0.167	-6.356	-5.548
	(0.988)	(5.512)	(10.870)
Blockholding	-2.774***	-9.407*	-8.151
	(1.154)	(5.674)	(10.568)
Acquirer Market to Book Value	-0.389**	0.045	-0.328
	(0.198)	(0.437)	(0.427)
Target Market to Book Value	0.273*	-0.647	0.037
	(0.142)	(0.406)	(0.465)
Diversifying	-0.524	0.267	0.199
	(0.651)	(1.667)	(1.831)
ln(Target Market Value)	-0.224	0.145	-1.275
	(0.345)	(1.275)	(1.447)
ln(Acquirer Market Value)	-0.197	0.303	1.5624
	(0.321)	(1.283)	(1.458)
Friday	-1.249*	-0.535	1.263
	(0.754)	(2.132)	(2.179)
Acquirer ROE	0.039**	0.008	-0.018
	(0.020)	(0.047)	(0.043)
Acquirer Acquisition Frequency	0.018	0.346	1.740
	(0.183)	(1.060)	(1.119)
Year Effects	YES	NO	YES
Industry Effects	YES	NO	YES
N	796	212	212
Adjusted R-Squared	0.06	0.01	0.05

Note: This table reports the output of three cross-sectional models explaining the variation in acquirers' CAR, with emphasis on the effect of the relative target informativeness, the presence of a top-tier advisor, and advisor fees. Model (1) examines how the effect of top-tier advisors' presence on acquirers' CAR is influenced by the degree of target relative price informativeness. Models (2) and (3) put emphasis on the wealth effects of advisory fees and how such effect varies with the degree of the target's relative price informativeness. Model (2) does not control for year and industry effects, while Models (1) and (2) control for these factors. The standard errors reported in parentheses are corrected for heteroskedasticity using the White (1980) heteroskedasticity consistent standard errors. *N* indicates the number of observations. ***, **, and * represent significance at the 1%, 5%, and 10% levels respectively. Please refer to Appendix 1 for an accurate description of the variables.

Table 8 The choice of Top-Tier Advisors in public target M&As

Dependent Variable	Top Tier Advisor	Top Tier Advisor
Explanatory Variable\Model (.)	(1)	(2)
Intercept	-2.471***	-4.325***
	(0.754)	(1.079)
High Relative Target Informativeness	-0.430*	-0.656**
	(0.256)	(0.274)
Stock	-0.893**	-0.562
	(0.331)	(0.359)
Cash	-0.694*	-0.924**
	(0.365)	(0.416)
Blockholding	-1.002***	-0.898**
	(0.380)	(0.419)
Acquirer Market to Book Value	0.011	0.010
	(0.056)	(0.072)
Target Market to Book Value	-0.059	-0.021
	(0.051)	(0.061)
Diversifying	0.220	0.276
	(0.239)	(0.270)
ln(Target Market Value)	0.604***	0.432***
	(0.122)	(0.129)
ln(Acquirer Market Value)	-0.287***	-0.150
	(0.110)	(0.120)
Friday	0.276	0.405
	(0.305)	(0.324)
Acquirer ROE	-0.009	-0.007
	(0.006)	(0.006)
Acquirer Acquisition Frequency	0.104	0.064
	(0.068)	(0.066)
Year Effects	NO	YES
Industry Effects	NO	YES
N	796	796
Pseudo R-Squared	0.09	0.25

Note: This table presents two Logit models predicting the choice of top-tier advisors in public target M&As. The dependent variable in each of these models (Top Tier Advisor) is assigned the value of 1 if a top-tier advisor in involved in the deal, and 0 otherwise. Model (1) does not control for year and industry effects, while Model (2) does control for them. *N* indicates the number of observations. ***, **, and * represent significance at the 1%, 5%, and 10% levels respectively. Please refer to Appendix 1 for an accurate description of the variables.

Table 9 PSM results

Panel A: Logit model										
Intercept	Stock	Cash	ln(Acquirer Market Value)	ln(Target Market Value)	Acquirer Market to Book Value	Target Market to Book Value	Diversifying	Blockholding	Acquirer Acquisition Frequency	Acquirer RoE
0.415	0.191	-0.084	0.299***	-0.407***	-0.029	-0.037	0.096	-0.532**	-0.045	0.009**
(0.439)	(0.183)	(0.232)	(0.066)	(0.077)	(0.033)	(0.033)	(0.143)	(0.246)	(0.047)	(0.004)

Panel B: Matching Results for the Acquirer CAR	
Matching Algorithm	Caliper Matching
Caliper	0.15
Matched Observations per Treated Deal	5:1
Number of Treated Observations	85
Number of Control Observations	425
ATT (%) (Abadie and Imbens (2006)	3.29**
Standard Errors)	(1.42)
Cut-off Γ value (p≈0.05)	1.40
Cut-off Γ value (p≈0.10)	1.49

Panel C: Matching Results for the Target CAR	
Matching Algorithm	Caliper Matching
ATT (%) (Abadie and Imbens (2006)	5.92**
Standard Errors)	(2.93)
Cut-off Γ value (p≈0.05)	1.46
Cut-off Γ value (p≈0.10)	1.51
Panel D: Matching Results for the Δ Acquirer Informativeness	
Matching Algorithm	Caliper Matching
ATT (%) (Abadie and Imbens (2006)	0.11***
Standard Errors)	(0.03)
Cut-off Γ value (p≈0.05)	2.16
Cut-off Γ value (p≈0.10)	2.26

Panel E: Covariates' Balancing						
	Before Matching			After Matching		
	Treatment Group	Control Group	*p*-value	Treatment Group	Control Group	*p*-value
Propensity Score	0.56	0.46	0.00	0.46	0.46	0.72
ln(Acquirer Market Value)	8.47	8.17	0.01	8.14	8.15	0.95
ln(Target Market Value)	6.02	6.51	0.00	6.61	6.52	0.67
Acquirer Market to Book Value	2.27	2.69	0.65	2.81	2.67	0.69
Target Market to Book Value	2.88	3.19	0.12	2.78	3.17	0.36
Acquirer RoE	14.10	9.81	0.00	11.38	9.76	0.59
Acquirer Acquisition Frequency	0.63	0.64	0.90	0.72	0.64	0.74
Stock	0.25	0.31	0.04	0.28	0.32	0.64
Cash	0.42	0.27	0.00	0.31	0.27	0.58
Blockholding	0.41	0.63	0.00	0.59	0.64	0.40
Diversifying	0.60	0.52	0.02	0.56	0.51	0.46

Note: This table reports the Propensity Score Matching analysis that estimates the effect of high target informativeness on the acquirer CAR and target CAR in addition to the difference between the acquirer's degree of non-synchronized trading between the pre- and post-acquisition periods. The treatment variable (High Informativeness) is a dummy variable assigned the value of 1 if the relative target informativeness exceeds its median value, and 0 otherwise. Panel A reports the Logit model used to estimate the propensity scores, with the dependent variable being High Informativeness. The outcome of the matching analysis for the acquirer CAR is reported in Panel B. The outcome of the matching analysis for the target CAR is reported in Panel C. The outcome of the matching analysis for the difference in non-synchronized trading is reported in Panel D. The PSM is based on 4:1 matching, and the number of treated and untreated observations on the matched sample is presented in Panel A. Panels B, C, D, and E report the estimated *ATT* with the Abadie and Imbens (2006) standard errors and the cut-off Γ value at the 5% and 10% levels of significance. Panel E represents the balancing of the propensity scores and the key empirical variables. The mean value of each of these variables in the treated group and the control group, and the bootstrapped *p*-value from the *t*-test of the null hypothesis that the difference is statistically equal to 0, are reported before and after matching. ***, **, and * represent significance at the 1%, 5%, and 10% levels respectively. Please refer to Appendix 1 for an accurate description of the variables.

Table 10 Multivariate analysis of acquirers' CAR in private target acquisitions with emphasis on the role of top-tier advisors

Dependent Variable	Acquirer CAR	Acquirer CAR
Explanatory Variable\Model (.)	(1)	(2)
Intercept	1.941	0.916
	(1.998)	(2.543)
Top Tier Advisor	-1.831**	-1.810**
	(0.902)	(0.903)
Top Tier Advisor × High Acquirer Informativeness	5.029**	4.679**
	(2.116)	(2.157)
High Acquirer Informativeness	-1.602*	-1.646*
	(0.960)	(0.981)
Stock	-0.465	-0.101
	(1.338)	(1.361)
Cash	0.407	0.213
	(0.649)	(0.648)
Blockholding	0.508	0.574
	(0.968)	(0.983)
Acquirer Market to Book Value	-0.144	-0.084
	(0.189)	(0.196)
Diversifying	-1.060*	-1.217*
	(0.635)	(0.655)
ln(Deal Value)	0.691**	0.708*
	(0.342)	(0.387)
ln(Acquirer Market Value)	-0.404	-0.387
	(0.337)	(0.354)
Friday	-0.468	-0.405
	(0.738)	(0.753)
Acquirer ROE	0.019	0.020
	(0.015)	(0.015)
Acquirer Acquisition Frequency	-0.752	-0.313
	(0.699)	(0.738)
Year Effects	NO	YES
Industry Effects	NO	YES
N	818	818
Adjusted R-Squared	0.02	0.02

Note: This table presents two models explaining the variation in the acquirers' 5-day CAR in private target acquisitions, with specific emphasis on the wealth effect of top-tier advisors and high acquirer price informativeness. Model (1) does not control for year and industry effects, while Model (2) does control for them. The standard errors reported in parentheses are corrected for heteroskedasticity using the White (1980) heteroskedasticity consistent standard errors. *N* indicates the number of observations. ***, **, and * represent significance at the 1%, 5%, and 10% levels respectively. Please refer to Appendix 1 for an accurate description of the variables.