Does corporate efficiency matter? Evidence from acquisitions of divesting targets

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Abstract

This paper reveals a negative relation between the target's divestiture of assets and takeover premiums. On average, divesting targets receive 4.7% lower (one-day) premiums, and the five-day announcement returns are 3.4% lower. The relation is robust to the control of acquirer characteristics, transaction details and measures of asset divestitures. I show that the potential benefits from exploiting target inefficiency explain the difference. Particularly, when targets operate in non-competitive industries, or transactions are announced in the period prior to Sarbanes-Oxley Act, the gap of premiums is significantly intensified. However, there is no significant influence of divestitures on transaction synergies and acquirer gains, suggesting that the decrease of target acquisitiveness through divestitures does not explain the lower premiums offered to divesting targets.

Keywords: Takeovers; Asset divestitures; Premiums; Synergies; Efficiency
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1 Introduction

The determinants of the takeover premium in the acquisitions of public firms are the subject of an ongoing debate in corporate finance. The prospective to restructure the target firm's workforce and assets is often considered as an important source of gain and premiums (e.g., Kaplan and Weisbach, 1992; Kang, Kim, Liu, and Yi, 2006; Dessaint, Golubov, and Volpin, 2017). While extensive findings reveal the effect of the target's labor force restructuring (Kang et al., 2006; Dessaint et al., 2017), there is no systematic empirical evidence on the relation between the target's restructuring of assets and takeover premiums.

In this paper, I examine the target's historical divestiture of assets and its relation with takeover premiums. I postulate two competing hypotheses based on existing literature. The first hypothesis predicts a negative effect of divesting assets on premiums.

It follows the theory of efficient asset allocation that firms can sell assets to improve their overall performance (Maksimovic and Phillips, 2002; Warusawitharana, 2008; Yang, 2008; Hege, Lovo, Slovin, and Sushka, 2009). However, in some firms, managers value size and control or earn private benefits from managing a complex portfolio of assets, are reluctant to divest assets, even the assets are unproductively managed (e.g., Lang, Poulsen, and M.Stulz, 1994; Phalippou, Xu, and Zhao, 2015). They also accumulate a number of assets through internal diversification programs (Denis, Denis, and Sarin, 1997; Yermack, Hoechle, Schmid, and Walter, 2012) or external acquisitions (Mitchell and Lehn, 1990; Offenberg, Straska, and Waller, 2014). Such mismanaged firms are potentially targeted by outsiders who actively seek inefficient targets, manage their assets more productively or sell them to a better-used buyer (Berger and Ofek, 1996; Offenberg et al., 2014). Asset divestitures, therefore, reduce the interest of bidders and their incentives to offer high premiums.

Under the view of neo-agency theories (Gorton, Kahl, and Rosen, 2009; Phalippou et al., 2015), the negative relation between asset divestitures and takeover premiums can also be explained by the reduction in the target's acquisitiveness. Following economic shocks, some firms start divesting assets to increase their market value. Such firms become smaller and unable to take over more firms. A manager who worries with "eats in order not to be eaten" will place less aggressive bids on divesting firms. As a result, the shareholders of divesting firms tend to receive lower takeover premiums.

The alternative hypothesis predicts the opposite. Firms that divest assets will receive larger premiums for two reasons. First, they often have good corporate governance, so the managers will exert efforts to negotiate highest premiums for shareholders. Indeed, divesting firms have stronger governance mechanisms than non-divesting firms (Denis et al., 1997; Jiraporn, Kim, Davidson, and Singh, 2006; Owen, Shi, and Yawson, 2009), while firms under weak monitoring tend to accumulate assets (Caprio, Croci, and Del Giudice, 2011). Second, divesting firms are strategic in nature, they gain experience and skills from previous divestitures which, in turn, may benefit future transactions (Humphery-Jenner, Powell, and Zhang, 2017). Boot (1992) theoretically shows that managers that experience divestitures are of higher quality, as they realize the significance of corporate reorganization in maximizing the firm's value.

To distinguish between competing hypotheses, I analyze the relation between asset divestitures and takeover premiums. I collect a sample of 2034 mergers and acquisitions (M&A)

announced between 1995 and 2009. In 318 of the 2034 events, the target firms divest at least one asset within five years. I define these targets as "divesting targets" or "divestors". The findings support the former hypothesis that divesting targets receive significantly lower premiums than non-divesting assets. One-day and four-week offered premiums are 4.8% and 6.2% lower, respectively, when targets divest assets. Stock market reacts positively to takeover announcements, signaling positive gains to target shareholders, but it discounts more than 3% when targets are divestors. The results remain robust after taking into account target corporate governance, acquirer characteristics and alternative measurements of asset divestitures.

Moreover, I measure takeover synergies as the cumulative abnormal returns for a value-weighted portfolio of the bidder and target (SCAR). I find that SCAR is not related to asset divestitures. This evidence reveals that the lower premiums offered to divesting targets are not because of lower synergies generated by the transactions with them. In additional (untabulated) tests, I show that the announcement return of acquirers is irrelevant to the target's divestiture of assets. This finding means the reduction of target acquisitiveness through divestitures does not lead to a less aggressive bid and higher acquirer returns.

I continue supporting the former hypothesis that the potential benefits from exploiting target inefficiency explain the larger premiums offered to non-divesting targets. In particular, I analyze the effect of asset divestitures on takeover premiums when the target's inefficiency is likely to be large. I first examine the influence of product market competition. I find that when the market is not competitive, the influence of asset divestitures on takeover premiums is large and statistically significant. Specifically, when targets operated in low competitive industries, one-day and four-week offered premiums offered to divesting targets are 5.8% and 8.3% lower than the premiums received by non-divesting targets. The difference of 5-day and 11-day target CAR is also large at 6.2% and 3.4%, respectively. However, in a highly competitive environment, the effect of asset divestitures is small and not statistically significant. The evidence is consistent with our conjecture that competition eliminates efficiency, so the gap of premiums offered to divesting and non-divesting targets should be lower in a competitive environment.

I investigate the impact of asset divestitures on takeover premiums in the period before and after Sarbanes-Oxley Act (SOX). The investigation aims to support the argument that SOX reduces the interest of corporate bidders by easing target inefficiency; therefore, divesting and non-divesting targets should obtain the same level of takeover premiums in the post-SOX period. The results from subsample regressions are consistent with the prediction. Specifically, in the pre-SOX period, I find that the reduction of asset divestitures is economically large, 8.1% and 8.0% for one-day and four-day offered premiums, respectively, while it is small at 0.6% and 2% in the post-SOX analysis. Analyzing target CAR in the pre-SOX and post-SOX period yields the similar result.

Overall, the paper complements the literature on the drivers of takeover premiums (e.g., Wang and Xie, 2009; Cai, Clara, and Sevilir, 2012; Fich, Cai, and Tran, 2011). It reveals a negative effect of asset divestitures on takeover premiums. While Yang (2008), Hege et al. (2009), and Warusawitharana (2008) show that asset divestitures lead firms to a more efficient organizational form and improve shareholders' wealth, I find that they are harmful to shareholders in potential acquisitions. In addition, potential inefficiency explains the gap of premiums, consistent with the view that non-divesting targets can restructure their assets

more efficiently through external M&A market (Maksimovic, Phillips, and Prabhala, 2011; Li, 2013). Mitchell and Lehn (1990), Berger and Ofek (1996) and Offenberg et al. (2014) add that outsiders discipline firms that accumulate inefficient assets, reorganize their assets more efficiently, or sell them off to a better-used buyer. The paper extends the literature on the role of product market competition, Sarbanes-Oxley Act, and managerial incentive alignment scheme in reducing firms' organizational inefficiency (e.g., Banerjee, Humphery-Jenner, and Nanda, 2015; Chhaochharia, Grinstein, Grullon, and Michaely, 2016; Nyberg, Fulmer, Gerhart, and Carpenter, 2010). It shows that non-divesting targets gain through acquisitions, benefiting shareholders with large premiums, and the gain is larger when targets operate in a less competitive environment, in the prior-SOX period, or have low incentive alignment. I also find that divesting assets reduces target acquisitiveness, but it does not lead to higher synergies and acquirer returns. While Phalippou et al. (2015) shows that the increase of target acquisitiveness will lead to more aggressive bids, lower acquirer returns and transaction efficiency.

The remainder of the paper is presented as follows. Section 2 describes data. Section 3 shows empirical results. Section 4 provides robustness tests. Section 5 concludes the paper.

2 Data

2.1 Data selection

I follow Moeller, Schlingemann, and Stulz (2004) and Masulis, Wang, and Xie (2007) to collect a sample of 2034 merger and acquisition (M&A) transactions. I search Securities Data Company (SDC) database for M&A transactions announced between 1995 and 2009. I require that both targets and acquirers are U.S. listed firms. The transaction value is disclosed and equal or greater than one million dollars. I exclude transactions that are classified as spin-offs, recapitalizations, self-tenders, exchange offers, repurchases, acquisitions of remaining interest or a minority stake, and privatizations.

I clean the sample as follows. First, I drop targets that operate in financial and utility industries, i.e., targets that have primary SIC codes from 4900 to 4999, and from 6000 to 6999. Second, I only select transactions that have the status of "completed (C)" or "withdrawn (W)". Specifically, transactions with "intended, intent withdraw, pending, and unknown" status are dropped from the sample. Third, I match the sample with Center for Research in the Security Prices (CRSP) and Compustat database to obtain the details of targets at the fiscal year immediately preceding the announcement date. I exclude observations with missing offered premiums and other target characteristics. Finally, I winsorize continuous variables at 1% and 99% to eliminate outliners. The definitions of all variables are presented in Appendix A.

2.2 Measurements of variables

To analyze the effect of the target's historical divestiture of assets on takeover premiums, I follow Hartzell, Ofek, and Yermack (2004) and Wang and Xie (2009) to use both SDC offered premiums (hereafter offered premiums) and target cumulative abnormal returns (target

CAR) as proxies for takeover premiums. The offered premium is measured as the ratio between the offered price and the referenced stock price, minus one. Using the market price of the target observed one day and four weeks before the announcement date as the referenced stock price gives two measurements of takeover premiums, PREM1D and PREM4W, respectively. The later measurement, PREM4W, aims to exclude the fluctuation of the target's stock price prior to the acquisition announcement. The second proxy for takeover premiums, TCAR, is measured as the sum of abnormal returns for a period of five days (-2,2) or eleven days (-5,5), given 0 is the announcement date. The measurement of premiums is TCAR(-2,2) and TCAR(-5,5), respectively. Abnormal returns are generated from the market model of which parameters are estimated over a period of one trading year with a gap of ten days and CRSP value-weighted returns served as the market benchmark.[1]

To construct the independent variable, I match the M&A sample with a sample of asset divestitures. I follow Slovin, Sushka, and Polonchek (2005) and Prezas and Simonyan (2015) to collect the sample of asset divestitures: (1) Transactions are listed in the SDC database and classified as "Acquisition of assets" or "Acquisitions of certain assets" ; (2) The ultimate parent of assets is a publicly listed firm; (3) The transaction value is equal or great than one million dollars; (4) Sales are completed. In addition, I require that asset parents must be identified in the CRSP database,and they have name and cusip identifier different from the identifiers of the divested assets.The independent variable is a binary variable indicating one if targets divest at least one asset within five years, zero otherwise.

I also incorporate a list of target characteristics and deal-specific information that are known as determinants of takeover premiums in existing literature (Wang and Xie, 2009; Fich et al., 2011; Cai et al., 2012).Specifically, target characteristics include deal size, market-to-book ratio, return on assets, sales growth rate, liquidity, and leverage. Transaction details are stock and cash deal indicator, hostility, and competition.In response to the concern of endogeneity issues caused by missing characteristics of bidders, I control for an extensive list of variables representing bidder characteristics in Section 4.

2.3 Descriptive statistics

Table 1 provides the sample distribution of 2304 takeover transactions announced during the period 1995-2009 across year. As shown, the number of transactions increase significantly from 146 deals in 1995 to reach a peak of 243 deals in 1998. Consistent with the M&A wave identified by Arikan and Stulz (2016), the table shows an intensive M&A activity during the period 1995-2000, which accounts for more than 50% of the whole sample. The figure, however, falls steadily after 2001 to the lowest number of 53 transactions in 2009. The transaction value averages at $2098 million with the median of $306 million. Compared to the sample average, the mean of transaction value in 1999, 2000 and 2009 is significantly larger at more than $3 billion. The total number of divesting targets is 318, representing 15.63% of the whole sample.

Table 2 shows the industry distribution of the acquisition sample. Industry classification is based on the first two digits of the target's primary SIC code. Similar to Cai et al. (2012),

[1]One trading year is assumed to contain 252 trading days. I also require that the estimation window must have at least 150 observations.

the "Business Services" industry has the largest number of transactions, which represents 22.42% of the whole sample. It is followed by the "Electronic and Other Electrical Equipment and Components" and "Measuring, Photographic, Medical, Optical Goods, and Clocks" industry with 183 and 172 deals, respectively. The highest number of divestors is also observed in the "Business Services" industry, followed by the "Communications" industry. Overall, transactions with divesting targets are not clustered to target industry, and their industry distribution exhibits a similar pattern as the overall acquisition sample. I eliminate the effect of industry and time trends on M&A activity by including industry and year fixed effects in later regression analyses.

Table 3 provides descriptive statistics of 2304 takeover transactions. It also shows comparative statistics between subsamples of divesting and non-divesting targets. Column 3-5 report means with standard deviation (in parentheses). Column 6 shows mean comparisons of variables between divesting and non-divesting targets, and two-tailed t-statistics in parentheses. As shown, takeover targets receive an average premium of 35.5% and 46.5% relative to the stock price one day and four weeks prior to the announcement date. Target shareholders receive an abnormal gain of 23.9% and 25.3% for the event window of five and eleven days, respectively. Consistent with Hartzell et al. (2004) and Wang and Xie (2009), the offered premiums are higher than 5-day and 11-day CAR, suggesting that target returns may reflect the likelihood of a failed transaction. I, therefore, provide analyses using both offered premiums and target CAR as proxies for takeover premiums. Univariate comparisons of takeover premiums support our prediction that divesting targets receive significantly lower premiums than non-divesting targets. Specifically, the difference of one-day and four-week offered premiums is large and economically significant at 4.7% to 7.6%, respectively. In addition, the 5-day and 11-day CAR of divesting targets is 3.4% and 3.9% lower than the CAR of non-divesting targets, respectively. Both differences are statistically significant at 5%.

Takeover synergies, SCAR, are the value-weighted CAR of targets and acquirers. SCAR(-2,2) and SCAR(-5,5) average at 1.8% and 1.9% for the study period of five and eleven days around the announcement date, respectively. According to Moeller et al. (2004) and Bhagat, Dong, Hirshleifer, and Noah (2005), the positive combined gains suggest that M&As create wealth for shareholders. The univariate comparison of synergies in Column 6 shows that transactions with divesting targets are economically efficient as they are with non-divesting targets. Particularly, the difference of combined CAR for period (-2,2) and (-5,5) is about 0% and statistically insignificant.

Table 3 also summarizes deal and target characteristics for the full sample and subsamples of divesting and non-divesting targets. As shown, the logarithm of transaction values ($ million) has a mean of 5.869 with a large standard deviation of 1.827. Transactions with divesting targets have much larger deal size than those with non-divesting targets. Tobin's Q of all targets has a mean of 2.146 with a standard deviation of 1.831. The difference of -0.559 is statistically at 1%, suggesting that divesting targets have lower growth rate (Q) than non-divesting targets. According to Servaes (1991), the target's Q has a negative relation with bidder CAR; therefore, the difference of Q may explain the premium gap between divesting and non-divesting targets. The mean ROA is small at 0.4%, but it is economically large at 4.8% when targets divest at least one asset in five years. Divesting targets have lower sales growth rate than non-divesting targets. Particularly, the average difference of sales growth rate is -23.6% and statistically significant at 1%. Table 3 also shows that divesting targets

have a higher level of debts and lower liquidity ratio than non-divesting targets. The mean differences are statistically significant at 1%, indicating that divesting targets are in financial difficulty (as in Schlingemann, Stulz, and Walkling (2002)). In term of deal characteristics, the average completion ratio of the whole sample is 83.8%. The completion ratio of divesting targets is slightly smaller than the ratio of non-divesting targets, but the difference is not statistically significant. In addition, 28.7% of the transactions in the sample are paid with 100% cash, 38% are paid all in stocks, 6.8% are hostile, and 9.4% have more than one bidder. Univariate comparisons in Column 6 show that the offer for divesting targets is more hostile and less likely to be paid with 100% stock.

3 Results

3.1 Main analyses

3.1.1 Analysis of takeover premiums. Univariate comparisons suggest that divesting targets are offered lower premiums than non-divesting targets. However, both types of targets exhibit differences in various dimensions that are known as determinants of takeover premiums. Hence, I employ linear regressions to take into account such factors:

$$Takeover\ premium_{i,t} = \alpha + \beta Divesting_{i,t} + \gamma X_{i,t-1} + \delta Z_{i,t-1} + \eta_i + v_t + \varepsilon_{i,t}, \qquad (1)$$

The dependent variable, *Takeover premium*, is measured as the ratio between the offered stock price and target stock price, minus one, or target CAR. The main independent variable, *Divesting*, equals one if the target divests at least one asset within five years. X is a vector of target characteristics, while Z is a set of transaction details. X and Z are measured at the fiscal year end immediately preceding the announcement date. η_i and v_t are industry and year fixed effects, respectively. The standard errors are robust to heteroskedasticity.

Table 4 reports regression results. As expected, the coefficient of *Divesting* is negative and statistically significant in all model specifications, suggesting that targets divesting assets tend to receive lower premiums. Specifically, Model (1) and (2) indicate that the one-day and four-week offered premiums obtained by targets decrease 4.8% and 6.2% when they sell assets within five years. I find similar evidence when target CAR is employed as the proxy for takeover premiums. *Divesting* is negative and statistically at 5% in Model (3) and (4), indicating that the stock market discounts for the takeover transactions announced by divesting targets. Particularly, target shareholders earn 3.1% and 3.4% lower returns when targets divest an asset in the past five years. The findings confirm the negative relation between asset divestitures and takeover premiums after controlling for various factors that are known to affect takeover premiums.

The coefficient on other control variables is consistent with the existing literature. Targets with poor growth prospects (low Q) are offered high premiums, consistent with findings of Raman, Shivakumar, and Tamayo (2013), Wang and Xie (2009) and Cai et al. (2012). In addition, the target's operating performance (ROA) has a negative relation with both offered premiums and target CAR. The effect, however, is only statistically significant at 10% in first three specifications. Similar to ROA, sales growth rate has a negative coefficient in all specification, but the effect is weak and only statistically significant in Model (2).

Table 4 also shows that deal completion positively affects takeover premiums. When a transaction is completed, the one-day and four-week offered premium increase 5.7% and 11.2%, respectively. In addition, the wealth of shareholders raises 6.8% and 7.6% in five and eleven days if the transaction is successful, suggesting that investors take into account the takeover probability of success. Moreover, cash offers have a positive relation with takeover premiums, which is consistent with the finding of Fich et al. (2011) and Raman et al. (2013). In particular, one-day and four-week offer premiums increase 3.5% and 6.6 %, respectively if the transaction is entirely financed by cash.Similarly, cash dummy positively affects target CAR, with a larger effect of 7.6% and 8.5% in Model (3) and (4), respectively. The results suggest that target shareholders may exchange premiums with the reduced uncertainty associated with cash offers. In contrast, stock dummy is negatively related to target CAR in the last two specifications, in line with the finding of Cai et al. (2012). Deal hostility positively affects one-day offered premiums and target announcement gains, but the effect becomes weak and insignificant when four-week offered premiums are employed as the dependent variable.Competition shows a positive relation with one-day and four-week offered premiums in the first two specifications (as in Schwert (2000)), but the effect is reversed when target CAR is employed as the proxy for takeover premiums.

3.1.2 Analyses of takeover synergies. I extend the analysis in the previous section by regressing takeover synergies, SCAR(-2,2) and SCAR(-5,5), on the target's asset divestitures and report results in Table 5. As shown, the coefficient of *Divesting* is small at -0.3% and statistically insignificant, suggesting that transactions with divesting and non-divesting targets generate similar economic efficiency. It means that non-divesting targets who gain more in acquisitions do not generate abnormal synergies, emphasizing that the asset-based restructuring is different from the acquisition-based restructuring. Specifically, existing literature shows that asset divestitures benefit both sellers and acquirers and create significant synergies (Datta, Iskandar-Datta, and Raman, 2003; Slovin et al., 2005; Hege et al., 2009). Our results, in contrast, show that acquisitions only benefit shareholders of the targets that choose not to divest assets. For the control variables, most of estimated parameters are consistent with the findings in the existing literature (Wang and Xie, 2009; Li, 2013). In particular, I find that the takeover synergies are negatively related to the size of the transaction, the target's leverage and liquidity and the purely stock-financed indicator. The synergy gain, however, is higher in hostile offers.

3.2 Additional analyses

I conjecture that divesting targets may reduce potential inefficiency that drives the interest of bidders to offer high premiums. In this section, I investigate the effect of asset divestitures on takeover premiums in environments where potential inefficiency is less available. I also analyze the capability of bidders to deal with the potential inefficiency in the target and its influence on takeover premiums.

3.2.1 Product market competition. The existing literature uncovers the role of product market competition in forcing firms to reduce costs, managerial slack, and organizational

inefficiency (Nickell, 1996; Schmidt, 1997). Therefore, if non-divesting targets potentially contain more inefficient assets than divesting targets, we would expect the gap of inefficiency is lower in competitive industries, suggesting that the difference of takeover premiums is lower.

Competition is often considered as an effective corporate governance mechanism (Scharfstein, 1988; Masulis et al., 2007; Giroud and Mueller, 2010; Chhaochharia et al., 2016). Giroud and Mueller (2010, 2011) argue that competitive pressures enforce discipline on managers, so that other governance mechanisms have less influence on firm efficiency in competitive industries. Consistently, Nguyen and Nguyen (2017) show that firms operated in competitive industries are unlikely to create or acquire inefficient assets, especially when other internal monitoring mechanisms are weak. Hence, potential profits from exploiting inefficient assets are less available in competitive industries, even with targets that do not have a record of divestitures.

I use Tirole (1988) and Curry and George (1983)'s classical Herfindahl-Hirschman index (HHI) as a proxy for industry competition. The index is also broadly used in the existing literature (Qiu and Wan, 2015; Andres, Fuente, and Velasco, 2017). HHI is measured as the total of squared market shares, $HHI_{kt} = \sum_{i=1}^{N_k} s_{ikt}^2$, where s_{ikt} is computed as the ratio between the firm i's sales and the total sales of all firms operated in the same industry defined by 4-digit SIC codes. I then re-estimate Equation 1 for subsamples of high and low industry competition. Targets are classified into the high (low) subsample if the HHI is less than (equal or greater than) its median.

Table 6 presents the estimation results. I find that the effect of asset divestitures on takeover premiums is large and statistically significant when targets operate in low competitive industries; however, it is small and statistically insignificant in competitive industries. Specifically, Model (2) shows that divesting assets reduces the one-day offered premiums by 5.8% in low competitive industries, relatively larger than the reduction of 3.3% in high competitive industries in Model (1). Similarly, the regression analysis of the high-competition subsample in Model (3) shows that four-week takeover premiums reduce 3.6% if targets divest assets. However, the reduction is statistically insignificant, with a large stand error of 3.5%. Model (4) consistently identifies a large difference of offered premiums between divesting and non-divesting targets in low competitive industries. In particular, the gap of 8.3% is economically large and statistically significant at 5%. From Model (5) to (8), the results similarly indicate that stock market reacts more negatively to the acquisition announcement of divestors in a less competitive environment. Specifically, 5-day target CAR in low competitive industry (Model (6)) reduces 6.2% if the target divests assets, but the effect is only 4.8% when the target's industry is highly competitive (Model (5)). Comparing the influences of asset divestitures on eleven-day CAR in Model (7) and (8) adds robust support to our prediction that the premium gap between divesting and non-divesting targets is intensified in low competitive environments.

3.2.2 Analyses of Pre-SOX and Post-SOX subsamples. In this section, I investigate the effect of targets' asset divestitures on takeover premiums before and after the Sarbanes-Oxley Act (hereafter, SOX). The 2002 enactment SOX is response to a series of corporate and accounting scandals. It marks a significant improvement of corporate governance and

aims to rebuild the confidence of investors in the capital markets (Engel, Hayes, and Wang, 2007). Extensive literature finds that SOX enhances the internal monitoring system, improves efficiency, and increases firm value (Jain and Rezafe, 2006; Zhang, 2007; Banerjee et al., 2015). Hence, firms become more efficient after the SOX. As a result, the SOX reduces the interests of corporate bidders, leading to a similar level of takeover premiums paid to divesting and non-divesting targets.

I re-estimate Equation 1 for two periods, before and after 2002, and show estimation results in Table 7.[2] Model (1) to (4) report the results for the pre-SOX period analysis, while Model (5) to (8) show the results for the post-SOX period analysis. As in Model (1), *Divesting* is negative and statistically significant at 1%, suggesting that one-day offered premiums received by divesting targets during the pre-SOX period are 8.1% lower than the premiums paid to non-divesting targets. In contrast, the effect of divesting assets on one-day offered premiums (in Model (5)) is only -0.6% and statistically insignificant in the post-SOX. Model (2) and (6) provide similar contrasting results when four-week offered premiums are used as the dependent variable. Specifically, the pre-SOX period regression in Model (2) shows a reduction of 8.0% in four-week offered premiums, but the post-SOX analysis only documents a small effect of 2.0%. Likewise, stock market shows a strong and negative reaction to the takeover announcement of divesting targets in the pre-SOX period, but it responses weakly in the post-SOX period. In particular, the effect of asset divestitures on TCAR(-2,2) and TCAR(-5,5) is -4.4% and -4.9% in the pre-SOX period, respectively. However, it is only -2.1% for 5-day CAR and -1.7% for 11-day CAR in the post-SOX period, and statistically insignificant.

Overall, the evidence suggests that divestors gain lower premiums than non-divestors in the pre-SOX period, but they have the same level of premiums in the post-SOX period. The results strongly support our prediction that SOX improves corporate governance and eliminates potential inefficiency; therefore, it decreases the effect of asset divestitures on takeover premiums.

4 Robustness tests

I provide a number of robustness checks to address the endogeneity-related concerns caused by omitted variables. I also test the robustness of the main results to alternative measurements of asset divestitures. In the interest of brevity, I only report the estimation results using four-week offered premiums as the dependent variable in Table 8. Regression analyses using other measurements of takeover premiums are quantitatively similar.

4.1 Acquirer characteristics

The results are also robust to the inclusion of acquirer characteristics as explanatory variables. Model (3) confirms the negative influence of asset divestitures on premiums, after controlling for acquirer asset size, Tobin's Q, return on assets, sales growth rate, liquidity and leverage. Specifically, divesting targets received 5.0% lower four-week offered premiums

[2] I exclude observations in 2002 from the analyses.

compared to non-divesting targets. The evidence also indicates that acquirer Tobin's Q has a positive and significant relation with takeover premiums, consistent with the finding of Cai et al. (2012). Other unreported tests also confirm that the main results are robust to the inclusion of private acquirers and acquirer pre-announcement stock price runup.

4.2 Target corporate governance

One potential cause of the endogeneity problem could be target corporate governance. Indeed, target managers under good governance tend to divest inefficient assets and run their firms efficiently. It is likely that they will exert maximum efforts to complete deals that create wealth to shareholders.

I conduct two tests to narrow down the potential effect of the above endogeneity issue. In the first test, I collect a number of board characteristics which are well-known representative proxies for the internal monitoring mechanism of targets. Specifically, I incorporate the ownership of directors, the size of the board, board independence, and a busy board indicator as additional explanatory variables for Equation 1. Estimation results in Model (1), Table 8 suggest that divesting targets are paid 11% lower premiums than non-divesting targets. The effect is economically large and statistically significant at 5%. In addition, the coefficient of director ownership is positive and statistically at 1%, indicating that the wealth alignment between target directors and shareholders are positively related to offered premiums. Specifically, 1% increase in the ownership of directors leads to an increase of 0.318% in takeover premiums.

In the second test, I use Bebchuk, Cohen, and Ferrell (2009)'s entrenchment index (E-index) as an additional variable indicating governance quality of targets. The E-index is constructed from six provisions: staggered boards, limits to shareholder by law amendments, poison pills, golden parachutes, and super-majority requirements for the period 1990-2006. Matching with the main sample results in 245 observations. Regression results presented in Model (2), Table 8 support our main prediction that divesting assets negatively affect the level of offered premiums. The regression, however, finds no significant effects of the target's E-index on premiums.

4.3 Measurement of historical asset divestitures

In previous analyses, I use a binary variable indicating one if targets divest at least one asset within five years as the main explanatory variable. It is concerned that this measurement of the targets' historical asset divestitures will not capture the intensity of the whole divestiture program, suggesting that the number of divestitures is also an important characteristic. In Model (4), Table 8, I report regression results of four-week offered premium on the target's number of previous divestitures in five years. The evidence suggests that each asset divestiture reduces the target's offered premiums by 2.2%, consistent with our main hypothesis that divestors are offered less premiums in takeovers than non-divestors. In an unreported test, I calculate the volume of all divested assets within five years and measure divestiture size as the natural logarithm of the divestiture volume. The regression analysis also reveals a strong and negative relation between divestiture size and takeover premiums.

5 Conclusion

In this paper, I investigate the relation between asset divestitures and takeover premiums. I find that one-day and four-week offered premiums are 4.7% and 7.6% lower when targets divest assets within five years, respectively. I also document a discount of more than 3% on the wealth of shareholders when targets are divestors. Multivariate regressions show that acquirer characteristics and transaction details do not affect the difference of premiums. However, empirical evidence indicates that corporate efficiency explains the large premium offered to non-divesting targets. In particular, using HHI index as a measurement of competition, I find that the premium discount for divesting assets is large and statistically significant in non-competitive industries, but it diminishes when targets operate in competitive industries. Similarly, I document a large effect of asset divestitures in the pre-SOX period, but it becomes small and insignificant in the post-SOX period. I, however, find no evidence on the effect of asset divestitures on takeover synergies and acquirer returns which means the decease of target acquisitiveness through discarding assets does not benefit acquire shareholders and create deal efficiency. Overall, our results suggest that divesting assets reduces the target's potential inefficiency which drives the interest of corporate bidders in offering high premiums.

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Appendix

Appendix A Variable definitions

Variable name	Definition	Source
Divesting	is a dummy indicator equal 1 if the target divests at least one asset within five years, 0 other wise.	SDC Platinum
PREM1D	is the ratio between the offered price and target stock price one day prior to the announcement date, minus one.	SDC Platinum
PREM4W	is the ratio between the offered price and target stock price four weeks prior to the announcement date, minus one.	SDC Platinum
TCAR(-2,2)	is measured as the cumulative abnormal returns between date -2 and 2, given 0 is the announcement date. Abnormal returns are generated from the market model of which parameters are estimated over the period of one year and CRSP value-weighted returns served as the market benchmark.	CRSP
TCAR(-5,5)	is measured as the cumulative abnormal returns between date -5 and 5, given 0 is the announcement date.	CRSP
SCAR(-2,2)	is measured as the value-weighted cumulative abnormal returns of both targets and acquirers during the period (-2,2).	CRSP
SCAR(-5,5)	is measured as the value-weighted cumulative abnormal returns of both targets and acquirers during the period (-5,5).	CRSP
Deal size	is the natural logarithm of the transaction value.	Compustat
Tobin's Q	is the ratio between the market value of assets and the book value of assets. The market value of asset is measured as the book value of debts plus market capitalization.	Compustat
Return on assets	is the ratio between earnings before interest and taxes and total assets.	Compustat
Sales growth rate	is the ratio between sales of year t and $t-1$, minus one.	Compustat
Liquidity	is the ratio between the sum of cash and short-term investments and and total assets.	Compustat
Leverage	is total debts scaled by the total assets.	Compustat
Cash (0/1)	is a binary variable indicating 1 if the deal is paid with 100% cash, 0 otherwise.	SDC Platinum
Stock (0/1)	is a binary variable indicating 1 if the deal is paid with 100% stock, 0 otherwise.	SDC Platinum
Hostile (0/1)	is a dummy indicator equal 1 if the deal attitude listed in SDC database is classified as "hostile" or "unsolicited", 0 otherwise.	SDC Platinum

Competition (0/1)	is a dummy indicator equal 1 if there is more than one bidder, 0 otherwise.	SDC Platinum
CEO ownership	is the proportion of common stocks held by CEO	ExecuComp
CEO variable pay	is the difference between the CEO's total compensation and salary scaled by the total compensation	ExecuComp
Director ownership	is the proportion of common stocks held by directors.	ISS (RiskMetric)
Board size	is the natural logarithm of the number of directors.	ISS (RiskMetric)
Board independence	is the ratio between the number of independent directors and the number of directors.	ISS (RiskMetric)
Busy board	is the ratio between the number of busy directors and the number of directors. Directors are classsified as busy directors if they serve more than two outside boards.	ISS (RiskMetric)

Table 1: **Sample distribution by announcement year**
The table shows the yearly distribution of acquisitions and divestors with sample proportion (in parentheses). The sample includes 2304 M&A transactions announced during the period 1995-2009. Both targets and acquirers are public firms listed in SDC M&A database. The value of transactions is equal or more than one million dollars. Divestors are defined as takeover targets that divest at least one asset within five years. Targets that operate in financial and utility industries are excluded from the sample.

	Number of acquisitions (%)	Number of divestors (%)	Mean (Median) deal value
1995	146 (7.18%)	21 (1.03%)	598 (142)
1996	165 (8.11%)	23 (1.13%)	1298 (236)
1997	225 (11.06%)	35 (1.72%)	1128 (304)
1998	243 (11.95%)	42 (2.06%)	2302 (224)
1999	242 (11.90%)	31 (1.52%)	3414 (376)
2000	208 (10.23%)	33 (1.62%)	3112 (411)
2001	155 (7.62%)	24 (1.18%)	1160 (181)
2002	71 3.49%	9 (0.44%)	1262 (175)
2003	83 (4.08%)	8 (0.39%)	672 (166)
2004	97 (4.77%)	14 (0.69%)	2343 (417)
2005	92 (4.52%)	15 (0.74%)	2998 (597)
2006	96 (4.72%)	17 (0.84%)	2972 (783)
2007	91 4.47%	20 (0.98%)	1801 (906)
2008	67 (3.29%)	13 (0.64%)	2198 (363)
2009	53 (2.61%)	13 (0.64%)	4789 (890)
Total	2034 (100%)	318 (15.63%)	2098 (306)

Table 2: **Sample distribution by target industry**
The table shows the distribution of acquisitions and divestors with sample proportion (in parentheses) by target industry. The sample includes 2304 M&A transactions announced during the period 1995-2009. Both targets and acquirers are public firms listed in SDC M&A database. The value of transactions is equal or more than one million dollars. Divestors are defined as takeover targets that divest at least one asset within five years. Targets that operate in financial and utility industries are excluded from the sample.

Target industry	Number of acquisitions (%)	Number of divestors (%)	Mean (Median) deal value
Business Services	456	42	1047
	(22.42%)	(2.06%)	(255)
Electronic and Other Electrical Equipment and Components	183	24	1243
	(9.00%)	(1.18%)	(222)
Measuring, Photographic, Medical, Optical Goods, and Clocks	172	16	1135
	(8.46%)	(0.79%)	(210)
Chemicals and Allied Products	145	21	4130
	(7.13%)	(1.03%)	(571)
Industrial and Commercial Machinery and Computer Equipment	141	25	1131
	(6.93%)	(1.23%)	(286)
Communications	106	34	9147
	(5.21%)	(1.67%)	(1361)
Oil and Gas Extraction	84	27	3658
	(4.13%)	(1.33%)	(708)
Health Services	75	12	1682
	(3.69%)	(0.59%)	(370)
Engineering, Accounting, Research, and Management Services	63	5	338
	(3.10%)	(0.25%)	(119)
Miscellaneous Retail	43	2	702
	(2.11%)	(0.10%)	(335)
Transportation Equipment	41	10	2662
	(2.02%)	(0.49%)	(482)
Food and Kindred Products	35	6	2467
	(1.72%)	(0.29%)	(657)
Hotels, Rooming Houses, Camps, and Other Lodging Places	34	13	3417
	(1.67%)	(0.64%)	(1067)

Wholesale Trade - Durable Goods	34	9	406
	1.67%	(0.44%)	(135)
Eating and Drinking Places	29	6	190
	(1.43%)	(0.29%)	(48)
Other	393	66	2093
	(19.32%)	(3.24%)	(329)

Table 3: **Descriptive statistics**
The table provides summary statistics for the sample of 2304 M&A transactions announced between 1995 and 2009 and the subsamples of divesting and non-divesting targets. Divesting targets are defined as targets that sell at least one asset within five year. Both targets and acquirers are public firms listed in SDC M&A database. The value of transactions is equal or more than one million dollars. Targets that operate in financial and utility industries are excluded from the sample. Univariate comparisons with t-statistics (in parentheses) are reported in the last column. Variable definitions are shown in Appendix A. ***, **, and * denote statistically significant at 1%, 5%, and 10% level, respectively.

	N	All	Non-divesting	Divesting	Difference
PREM1D	2034	0.345	0.354	0.302	-0.047**
		(0.347)	(0.355)	(0.298)	(-2.24)
PREM4W	2034	0.452	0.465	0.39	-0.076***
		(0.424)	(0.435)	(0.355)	(-2.86)
TCAR(-2,2)	1944	0.239	0.246	0.206	-0.034**
		(0.253)	(0.257)	(0.229)	(-2.13)
TCAR(-5,5)	1944	0.253	0.26	0.214	-0.039**
		(0.267)	(0.272)	(0.235)	(-2.35)
SCAR(-2,2)	1674	0.018	0.018	0.018	0.000
		(0.091)	(0.093)	(0.079)	(0.040)
SCAR(-5,5)	1674	0.019	0.019	0.016	-0.003
		(0.104)	(0.106)	(0.093)	(-0.53)
Deal size	2034	5.869	5.668	6.895	1.187***
		(1.827)	(1.727)	(1.979)	(10.92)
Tobin's Q	2034	2.146	2.232	1.711	-0.559***
		(1.831)	(1.956)	(0.854)	(-4.80)
Return on assets	2034	0.004	-0.004	0.048	0.047***
		(0.230)	(0.244)	(0.130)	(3.340)
Sales growth rate	2034	0.377	0.415	0.183	-0.236***
		(0.926)	(0.977)	(0.565)	(-4.10)
Liquidity	2034	0.228	0.247	0.127	-0.114***
		(0.242)	(0.249)	(0.163)	(-7.72)
Leverage	2034	0.196	0.181	0.272	0.095***
		(0.205)	(0.201)	(0.211)	(7.57)
Completion (0/1)	2034	0.838	0.840	0.827	-0.013
		(0.368)	(0.009)	(0.021)	(-0.022)
Cash (0/1)	2034	0.287	0.290	0.271	-0.003
		(0.453)	(0.454)	(0.445)	(-0.11)
Stock (0/1)	2034	0.38	0.399	0.286	-0.125***
		(0.486)	(0.490)	(0.453)	(-4.21)
Hostile (0/1)	2034	0.068	0.058	0.121	0.065***

		(0.252)	(0.233)	(0.327)	(4.13)
Competition (0/1)	2034	0.094	0.090	0.114	0.028
		0.292	0.286	0.319	(1.60)

Table 4: **Regression analysis of takeover premiums**
The table provides regression analyses of takeover premiums on target's historical divestitures. The dependent variable is the ratio between the offered stock price and stock price prior to the announcement date, minus one, or target cumulative abnormal returns. The main independent variable equals one if the target divests at least one asset within five years. Definitions of other variables are shown in Appendix A. The heteroskedasticity-consistent standard errors are presented in parentheses. ***, **, and * denote statistically significant at 1%, 5%, and 10% level, respectively.

Dependent variable	PREM1D	PREM4W	TCAR(-2,2)	TCAR(-5,5)
	(1)	(2)	(3)	(4)
Divesting (0/1)	-0.048**	-0.062**	-0.031**	-0.034**
	0.020	0.025	0.015	0.016
Target characteristics				
Deal size	0.000	-0.001	-0.003	-0.004
	0.006	0.007	0.004	0.004
Tobin's Q	-0.016***	-0.008	-0.013***	-0.013***
	0.005	0.007	0.004	0.004
Return on assets	-0.086*	-0.115*	-0.064*	-0.061
	0.050	0.067	0.037	0.039
Sales growth rate	-0.011	-0.020	-0.008	-0.004
	0.009	0.012	0.006	0.007
Liquidity	0.053	0.072	0.019	0.022
	0.049	0.065	0.034	0.037
Leverage	0.041	0.107	0.036	0.041
	0.048	0.066	0.037	0.039
Deal characteristics				
Completion (0/1)	0.057**	0.112***	0.068***	0.076***
	0.027	0.034	0.018	0.020
Cash (0/1)	0.035*	0.066**	0.076***	0.085***
	0.021	0.026	0.016	0.017
Stock (0/1)	-0.008	-0.013	-0.048***	-0.054***
	0.021	0.026	0.014	0.015
Hostile (0/1)	0.100***	0.033	0.070***	0.068***
	0.033	0.035	0.022	0.023
Competition (0/1)	0.116***	0.153***	-0.052***	-0.048***
	0.033	0.041	0.017	0.018
Constant	0.234	0.158	0.007	0.003
	0.175	0.098	0.041	0.038
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
No. of Obs.	2034	2034	1944	1943
R-Squared	0.080	0.090	0.140	0.140

Table 5: **Regression analysis of takeover synergies**
The table provides regression analyses of takeover synergies on target's historical divestitures. The dependent variable is the total cumulative abnormal returns of targets and acquirers around the announcement date. The main independent variable equals one if the target divests at least one asset within five years. Definitions of other variables are shown in Appendix A. The heteroskedasticity-consistent standard errors are presented in parentheses. ***, **, and * denote statistically significant at 1%, 5%, and 10% level, respectively.

Dependent variable	SCAR(-2,2)	SCAR(-5,5)
	(1)	(2)
Divesting (0/1)	-0.003	-0.003
	0.006	0.006
Target characteristics		
Deal size	-0.004**	-0.004**
	0.002	0.002
Tobin's Q	-0.001	-0.001
	0.002	0.002
Return on assets	-0.017	-0.017
	0.016	0.016
Sales growth rate	-0.001	-0.001
	0.004	0.004
Liquidity	-0.043***	-0.043***
	0.014	0.014
Leverage	-0.027*	-0.027*
	0.014	0.014
Deal characteristics		
Completion (0/1)	0.002	0.002
	0.009	0.009
Cash (0/1)	0.000	0.000
	0.006	0.006
Stock (0/1)	-0.015**	-0.015**
	0.006	0.006
Hostile (0/1)	0.031***	0.031***
	0.010	0.010
Competition (0/1)	-0.001	-0.001
	0.008	0.008
Constant	0.034	0.034
	0.027	0.027
Year FE	Yes	Yes
Industry FE	Yes	Yes
No. of Obs.	1674	1674
R-Squared	0.08	0.08

Table 6: **Industry competition**

The table provides regression analyses of takeover premiums on target's historical divestitures in high and low competitive environments. The dependent variable is the ratio between the offered stock price and stock price prior to the announcement date, minus one, or target cumulative abnormal returns. The main independent variable equals one if the target divests at least one asset within five years. Targets are classified into high (low) industries if the Herndahl-Hirschman index is less than (equal or greater than) the median. The index is measured as the total of squared market shares of all firms shared the same industry. Definitions of other variables are shown in Appendix A. The heteroskedasticity-consistent standard errors are presented in parentheses. ***, **, and * denote statistically significant at 1%, 5%, and 10% level, respectively.

Dependent variable	PREM1D	PREM1D	PREM4W	PREM4W	TCAR(-2,2)	TCAR(-2,2)	TCAR(-5,5)	TCAR(-5,5)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Competition	High	Low	High	Low	High	Low	High	Low
Divesting (0/1)	-0.033	-0.058*	-0.036	-0.083**	-0.048**	-0.062**	-0.031**	-0.034**
	0.027	0.031	0.035	0.037	0.020	0.025	0.015	0.016
Target characteristics								
Deal size	0.004	0.000	-0.001	0.001	0.000	-0.001	-0.003	-0.004
	0.008	0.009	0.010	0.010	0.006	0.007	0.004	0.004
Tobin's Q	-0.012*	-0.016***	-0.005	-0.007	-0.016***	-0.008	-0.013***	-0.013***
	0.007	0.006	0.009	0.011	0.005	0.007	0.004	0.004
Return on assets	-0.134*	-0.06	-0.242***	0.01	-0.086*	-0.115*	-0.064*	-0.061
	0.068	0.073	0.087	0.097	0.050	0.067	0.037	0.039
Sales growth rate	0.008	-0.027**	-0.018	-0.021	-0.011	-0.020	-0.008	-0.004
	0.014	0.011	0.016	0.019	0.009	0.012	0.006	0.007
Liquidity	0.035	0.086	0.083	0.077	0.053	0.072	0.019	0.022
	0.072	0.068	0.09	0.094	0.049	0.065	0.034	0.037
Leverage	-0.049	0.140*	0.010	0.226**	0.041	0.107	0.036	0.041
	0.058	0.081	0.082	0.113	0.048	0.066	0.037	0.039
Deal characteristics								
Completion (0/1)	0.051	0.052	0.100**	0.122***	0.057**	0.112***	0.068***	0.076***
	0.04	0.038	0.05	0.046	0.027	0.034	0.018	0.020
Cash (0/1)	0.038	0.038	0.076**	0.065*	0.035*	0.066**	0.076***	0.085***

	0.03	0.031	0.035	0.04	0.021	0.026	0.016	0.017
Stock (0/1)	-0.012	0.014	0.005	-0.018	-0.008	-0.013	-0.048***	-0.054***
	0.029	0.032	0.037	0.039	0.021	0.026	0.014	0.015
Hostile (0/1)	0.221***	-0.002	0.131***	-0.057	0.100***	0.033	0.070***	0.068***
	0.046	0.044	0.049	0.052	0.033	0.035	0.022	0.023
Competition (0/1)	0.093**	0.143***	0.091	0.219***	0.116***	0.153***	-0.052***	-0.048***
	0.046	0.046	0.057	0.059	0.033	0.041	0.017	0.018
Constant	0.247**	0.247	0.855***	0.111	0.234	0.158	0.007	0.003
	0.106	0.203	0.129	0.133	0.175	0.098	0.041	0.038
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	1016	1018	1016	1018	2034	2034	1944	1943
R-Squared	0.13	0.12	0.14	0.11	0.08	0.09	0.14	0.14

Table 7: **Sarbanes-Oxley Act**

The table provides regression analyses of takeover premiums on target's historical divestitures for the pre-SOX and post-SOX subsample. The dependent variable is the ratio between the offered stock price and stock price prior to the announcement date, minus one, or target cumulative abnormal returns. The main independent variable equals one if the target divests at least one asset within five years. Definitions of other variables are shown in Appendix A. The heteroskedasticity-consistent standard errors are presented in parentheses. ***, **, and * denote statistically significant at 1%, 5%, and 10% level, respectively.

Dependent variable	Pre-SOX				Post-SOX			
	PREM1D	PREM4W	TCAR(-2,2)	TCAR(-5,5)	PREM1D	PREM4W	TCAR(-2,2)	TCAR(-5,5)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Divesting (0/1)	-0.081***	-0.080**	-0.044**	-0.049**	-0.006	-0.02	-0.021	-0.017
	0.025	0.032	0.019	0.02	0.034	0.038	0.026	0.027
Target characteristics								
Deal size	0.014*	0.011	0.001	0.001	-0.018**	-0.015	-0.002	-0.003
	0.007	0.009	0.005	0.005	0.009	0.011	0.007	0.007
Tobin's Q	-0.018***	-0.009	-0.014***	-0.014***	-0.022*	-0.008	-0.011	-0.011
	0.005	0.008	0.004	0.004	0.012	0.013	0.011	0.011
Return on assets	-0.091	-0.105	-0.004	-0.003	-0.148	-0.270*	-0.262***	-0.244***
	0.058	0.076	0.036	0.038	0.109	0.151	0.082	0.091
Sales growth rate	-0.009	-0.019	-0.003	0.002	-0.022	-0.02	-0.021	-0.02
	0.01	0.014	0.007	0.008	0.016	0.028	0.015	0.024
Liquidity	0.009	0.083	-0.014	-0.016	0.116	0.053	0.044	0.057
	0.064	0.084	0.043	0.046	0.077	0.103	0.058	0.066
Leverage	0.01	0.116	0.037	0.048	0.102	0.064	0.004	-0.013
	0.056	0.077	0.042	0.044	0.097	0.14	0.072	0.081
Deal characteristics								
Completion (0/1)	0.028	0.083**	0.056***	0.064***	0.089*	0.099	0.081**	0.085*
	0.033	0.04	0.022	0.024	0.054	0.072	0.04	0.044
Cash (0/1)	0.046	0.037	0.077***	0.088***	0.017	0.091**	0.069***	0.079***
	0.029	0.035	0.022	0.023	0.033	0.04	0.026	0.028
Stock (0/1)	0.006	-0.016	-0.035**	-0.043**	-0.082**	-0.085*	-0.078***	-0.071**

	0.026	0.031	0.017	0.018	0.04	0.048	0.028	0.03
Hostile (0/1)	0.108***	0.043	0.063**	0.064**	0.078	-0.002	0.072	0.051
	0.039	0.04	0.027	0.029	0.065	0.074	0.045	0.048
Competition (0/1)	0.088**	0.090*	-0.041*	-0.043*	0.144**	0.217***	-0.095***	-0.081**
	0.04	0.047	0.022	0.024	0.057	0.074	0.03	0.033
Constant	0.249	0.121	-0.008	-0.021	0.220**	0.318***	-0.035	-0.019
	0.294	0.165	0.067	0.047	0.09	0.117	0.071	0.074
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	1384	1384	1343	1342	579	579	533	533
R-Squared	0.09	0.08	0.13	0.13	0.19	0.23	0.29	0.28

Table 8: **Robustness checks**
The table provides robustness tests to the inclusion of omitted variables and alternative measurements of targets' asset divestitures. The dependent variable is the ratio between the offered stock price and target stock price four weeks prior to the announcement date, minus one. Appendix A shows definitions of other variables. The heteroskedasticity -consistent standard errors are in parentheses. ***, **, and * denote statistically significant at 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)	(4)
Divesting (0/1)	-0.110**	-0.121**	-0.050*	
	0.048	0.059	0.026	
Number of divested assets				-0.022**
				0.009
Target characteristics				
Deal size	-0.004	0.001	-0.003	-0.001
	0.018	0.023	0.009	0.007
Tobin's Q	0.017	0.001	-0.018**	-0.007
	0.025	0.027	0.007	0.007
Return on assets	-0.617	-0.659*	-0.108	-0.116*
	0.474	0.362	0.072	0.068
Sales growth rate	-0.101*	0.049	-0.004	-0.02
	0.054	0.112	0.013	0.012
Liquidity	0.205	0.071	0.026	0.072
	0.181	0.262	0.072	0.065
Leverage	0.056	-0.213	0.074	0.102
	0.141	0.152	0.071	0.066
Deal characteristics				
Completion (0/1)	0.063	0.106	0.097***	0.110***
	0.044	0.072	0.036	0.034
Cash (0/1)	0.01	0.038	0.065**	0.067***
	0.058	0.066	0.028	0.026
Stock (0/1)	-0.089*	-0.04	-0.037	-0.012
	0.052	0.046	0.027	0.026
Hostile (0/1)	0.014	0.05	0.043	0.027
	0.054	0.074	0.037	0.035
Competition (0/1)	0.075	0.096	0.167***	0.153***
	0.055	0.078	0.043	0.041
Target corporate governance				
Director ownership	0.301***			
	0.082			
Board size	-0.028			
	0.088			
Board independence	-0.01			

	0.139			
Busy board	0.15			
	0.192			
E-index		0.03		
		0.021		
Acquirer characteristics				
Log of (total assets)			-0.006	
			0.008	
Tobin's Q			0.025***	
			0.007	
Return on assets			0.086	
			0.11	
Sales growth rate			0.001	
			0.018	
Liquidity			-0.002	
			0.087	
Leverage			0.019	
			0.071	
Constant	0.288	0.069	0.217**	0.143
	0.295	0.218	0.101	0.093
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
No. of Obs.	280	245	1761	2034
R-Squared	0.33	0.41	0.12	0.09