

Spring-loading when no one is looking?

Earnings and cash flow management around acquisitions

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Abstract

We identify how targets and acquirers collaborate to manage earnings and cash flows around acquisitions. Using a sample of 2,128 completed deals from 1985-2010, we find that targets report lower earnings and cash flows for the “quiet” period between announcement and completion. Our results suggest that these reductions reflect acceleration of post-acquisition expenses and cash outflows into the quiet period, rather than reduced sales and cash inflows. The resulting boost in acquirer post-acquisition performance is related cross-sectionally to the reduction in target performance during the quiet-period. Our study contributes to the earnings management literature as well as research studying mergers and acquisitions.

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1 Introduction

Mergers and acquisitions (M&A) are arguably the most significant investment decisions that firms make. Research has shown that earnings management during acquisitions can have substantial economic impact because of the associated wealth transfers among stakeholders. The literature investigating earnings management behavior around M&As focuses mainly on the period *before* acquisitions are announced, and analyzes the earnings of acquirers (e.g., Erickson and Wang 1999; Louis 2004; Gong, Louis, and Sun 2008) and targets, both those taken over by public acquirers (e.g., Raman, Shivakumar, and Tamayo 2008; Anilowski, Macias, and Sanchez 2009; and Marquardt and Zur 2010) and via management buyouts (DeAngelo 1986; Perry and Williams 1994; Fischer and Louis 2011). We investigate if targets understate earnings during the “quiet” period, *after* acquisitions are announced but before transactions are completed, and whether that understatement is linked to post-acquisition earnings overstatement by acquirers.

We examine the quiet period because we believe targets face lower costs if they understate earnings, because of the target’s limited life as a stand-alone entity. Targets’ stock prices are less likely to fall in response to lower earnings during the quiet period, as the compensation to be received by target shareholders is relatively certain. Also, disclosures made during the quiet period receive less scrutiny from stock market participants, as targets will soon be absorbed into the acquirer. Scrutiny declines further for the stub portion of the quiet period, between the end of the last full quarter and the completion date, because no target financial statements are filed for this period.

While target managers might face lower costs to reducing earnings during the quiet period, the associated benefits are also low. Managers of acquiring firms, on the other hand, clearly benefit from lower target earnings during the quiet period, if those lower earnings

translate into higher post-acquisition earnings for the acquirer. We posit that these benefits to managers of acquiring firms represent the benefits driving target earnings understatement, and assume that acquiring managers are able to induce target managers to cooperate.

The description of Tyco, a serial acquirer, provided in a Fortune article by Herb Greenberg, dated 4/1/2002, illustrates the proposition underlying our study. The article discusses various efforts by Tyco to make acquired targets report lower earnings and cash flows during the quiet period, with the intent of “spring-loading” Tyco’s earnings and cash flows immediately after the acquisition is completed. The quote below refers to Tyco’s acquisition of Raychem, an electronics manufacturer, which was completed on Aug. 12, 1999, for \$2.9 billion:

“FORTUNE spoke to five former Raychem financial employees as well as a former Raychem consultant, all of whom said that after the deal was announced in May—but before it was completed in August—they were asked by Tyco officials to do such things as accelerate the payment of expenses, hold back the posting of payments received until after the acquisition date—which they refused to do—and overstate reserves. The implied purpose, they say, was to help boost Tyco's post-acquisition cash flow.”

While the example cited above emphasizes improved post-acquisition cash flows, other examples in the article refer to improving Tyco’s post-acquisition earnings by managing target accruals. For example, the quote below refers to overstating Raychem’s reserves:

“One former Raychem division controller recalls how a Tyco official specifically discussed inflating reserves. She would literally ask, ‘How high can we get these things. How can we justify getting this higher?’ The employee, ... says he personally inflated reserves for such items as workers' compensation, medical insurance, and pensions by at least \$10 million.”

We propose the following testable predictions. First, targets manage earnings and operating cash flows downward during the quiet period. Even though our study is motivated by earnings management, we include management of cash flows. For convenience, we use the term “performance” to cover both earnings and operating cash flows. Second, acquirer performance is overstated over the quarters immediately following the acquisition. Third, targets’ quiet period

performance is cross-sectionally negatively related to acquirers' post-acquisition performance. That is, the greater the performance understatement by targets during the quiet period, the more we expect acquirer performance to be boosted after the acquisition.

We document the following results, based on a sample of 2,128 M&A deals completed between 1985 and 2010. Consistent with our first and main prediction, targets report significantly lower earnings and operating cash flow surprises during the quiet period relative to the quarters before, where surprises equal seasonally-differenced per share quarterly earnings and cash flows. The extent of target earnings understatement is even greater during the stub portion of the quiet period, for which no financial reports are filed.¹ The lower earnings reported by targets are due mainly to higher expenses, rather than lower revenues, and the higher expenses arise both from operating items as well as more frequent and larger, negative one-time items. The lower earnings appear to be driven mainly by transactions that result in lower cash flows rather than lower accruals.

We face three challenges when investigating the second prediction: a) the lack of a sharply defined period over which acquirer performance is likely to be boosted; b) the absence of pre-acquisition data for the combined entity, required to estimate surprises based on seasonal differences; and c) the presence of acquisition-related items, such as write-offs and amortization of goodwill, which can reduce post-acquisition performance and bias against our prediction. In response, we a) assume that performance boosting occurs over the first four post-acquisition quarters, b) estimate surprise by comparing per share quarterly earnings and cash flows with the corresponding amounts for the same fiscal quarter from the *next* year, and c) consider two measures of core earnings that exclude some acquisition-related items.

¹ We infer target sales and earnings during the stub period for a subsample of 106 deals using hand-collected data gathered from footnote disclosures in post-acquisition SEC filings.

Our results are partially consistent with the second prediction. We find evidence of significantly higher GAAP and core earnings surprises as well as higher analyst forecast errors in quarters 2 through 4, relative to the average surprises reported in quarters 5 through 8. These patterns are more evident for large acquisitions, where deal value exceeds 50 percent of the acquirer's market value. For the first post-acquisition quarter, however, acquirers report lower GAAP and core earnings surprises, relative to quarters 5 through 8. Some of the lower earnings surprise is due to large acquisition-related charges taken in this quarter, which includes the closing date, and it's possible that some of those charges remain in our measure of core earnings. We find no evidence of higher operating cash flow surprises over any of the first four post-acquisition quarters, relative to the four quarters after that.

Our third prediction of a link between target performance understatement during the quiet period and overstated post-acquisition acquirer performance is supported by the strong negative cross-sectional relations we observe between target earnings (cash flows) and different measures of acquirer earnings (cash flows). These negative relations are strongest for the first post-acquisition quarter, smaller yet still significant for the second quarter, and decline quickly thereafter. Combining these cross-sectional results with the time-series results observed for the second prediction provides the following interpretation. Even though performance surprises reported by acquirers immediately after the acquisition are not clearly higher than those for quarters 5 to 8, they are clearly higher (less negative) than performance surprises for deals where target performance during the quiet period was understated less.

The incentives to transfer target earnings and cash flows to the acquirer should vary along a number of relevant target and acquirer characteristics, such as whether they share a common auditor, the size of the deal relative to acquirer size, and the sensitivity of the acquirer's stock

prices to earnings surprises. We investigate whether target performance understatement during the quiet period is greater for certain partitions of our sample, derived from such conjectures. Our results support most of the conjectures, but only some are statistically significant.

Taken together, our results suggest that targets understate quiet period performance by substantial amounts, and acquirers benefit by reversing that understatement during the quarters immediately following completion of the acquisition. Note that our results underestimate the full extent of reduction in target performance because our estimate of the quiet period a) excludes the stub portion of the quiet period, which contains substantial target earnings understatement, and b) includes the period between the date the successful acquirer makes its initial bid and when its final bid is accepted, which might be associated with incentives for targets to overstate performance.² Our results also likely understate the extent to which accruals are used to transfer target earnings to acquirers if accrual management occurs mainly during the stub period.

This study contributes to the literature investigating earnings management as well as the broader M&A literature. First, the magnitude of target earnings understatement (mean of about one percent of book value of equity for each quarter in the quiet period) is quite large, relative to other documented instances of earnings management. Second, we show that target earnings understatement is associated with similar magnitudes of target cash flow understatement. Third, we show how performance management can occur *across* firms, not just within firms, because of collaboration between targets and acquirers. Finally, we add to the burgeoning literature on how targets' financial reporting has economic implications for the M&A process and outcomes (e.g., Anilowski et al. 2009). For example, overstated acquirer post-acquisition performance might possibly affect acquirer stock prices and compensation earned by acquirer managers.

² The SDC database we use provides the date the successful acquirer made its first bid, not the date when the acquisition was announced. Targets may have incentives to overstate performance—to raise bids—during the early part of our mismeasured quiet period if the initial bid appears too low or if other bidders are involved.

We organize the rest of the paper as follows. Section 2 reviews relevant literature and presents our empirical predictions. Section 3 describes our sample. Section 4 presents our main empirical results, and Section 5 discusses additional analyses. Section 6 concludes.

2 Background Literature and Predictions

Prior research on earnings management around M&A transactions has focused mainly on the earnings management behavior of acquiring firms prior to announcement of the acquisition. Results from one stream of this literature suggest that acquirers have incentives to manage earnings upward prior to stock-for-stock acquisitions. For example, Erickson and Wang (1999) finds that managers of acquiring firms boost earnings prior to stock-based acquisitions, in an effort to increase their stock price and reduce the number of shares issued in exchange. Louis (2004) confirms the results in Erickson and Wang (1999) and documents results which suggest that the long-term post-acquisition underperformance of stock-for-stock acquirers can be attributed partially to the reversal of positive pre-acquisition accruals. Gong, Louis, and Sun (2008) builds on Louis (2004) and finds that the incidence of post-acquisition lawsuits is positively associated with acquirers' pre-acquisition abnormal accruals.

Another related stream of literature examines earnings management behavior by targets prior to management buyouts (DeAngelo 1986; Perry and Williams 1994; Fisher and Louis 2011). The general finding there is that managers have incentives to understate earnings prior to the buyout in an effort to depress stock prices and reduce the purchase price. More recent results (e.g., Fisher and Louis, 2011) suggest that managers also have incentives to *overstate* earnings prior to management buyouts in certain cases with conflicting interests arising from external financing needs.

A recent stream of research examines ways in which M&A transactions are affected by target financial reporting quality. For example, Raman, Shivakumar, and Tamayo (2008) examines the impact of targets' earnings quality on acquirer decisions along three dimensions: takeover method, offer premium, and form of payment. This study finds that when targets exhibit poor earnings quality—proxied by Dechow-Dechow (2002) residuals—acquirers are less likely to stage a hostile takeover, but more likely to offer lower premiums and pay with stock to share the risk of overpayment with target shareholders. Marquardt and Zur (2010) uses the same Dechow-Dichev (2002) measure of earnings quality, and finds that target's earnings quality increases the likelihood of the deal being negotiated (versus an “auction” among multiple bidders), and is positively associated with the likelihood and speed of completion.

Anilowski, Macias, and Sanchez (2009) finds that targets that engage in more pre-acquisition earnings management are more likely to be pursued by multiple bidders, versus a single bidder, possibly because target managers that engage in “window dressing” prefer to sell via an auction with multiple bidders to reduce the risk of earnings management being detected. Higher purchase prices resulting from multiple bidders represent wealth transfers from acquirer shareholders to target shareholders and management. Overall, this stream of research finds that targets' information environment and earnings quality impact important economic decisions made during the M&A process.

We seek to add to this literature by examining targets' earnings management behavior after the acquisition is announced, and then link the potential impact of target earnings management to acquirer earnings management after the acquisition. We also add to this literature by examining whether operating cash flows are managed in a similar manner.

The predictions we make, listed later in this section, are based on the following assumptions about the costs and benefits of performance management to targets and acquirers. First, the costs to targets of understating performance during this quiet period are relatively low. For example, earnings understatement at this point is less likely to result in lower target share prices, relative to understated earnings at other points in time, because the payments to be received by target shareholders are already set. Similarly, contracts that rely on reported numbers are less likely to be affected by understated earnings because many of those contracts will either expire or be renegotiated. Finally, costs are lower because targets face substantially reduced scrutiny from market participants, such as investors and analysts, during this “lame duck” period as the formalities of the acquisition process are being completed. Public trading in target shares will cease soon, which reduces the incentives for market participants to monitor and gather information on the target.

The level of scrutiny by market participants and the associated costs of understated performance are even lower during the stub portion of the quiet period, because no financial statements are filed.³ We recognize that our results, which are based on the visible portion of the quiet period and exclude stub period performance, will likely understate both the magnitude of performance understatement by targets as well as the fraction that is accruals-based.

Second, we assume that the benefits to target managers of understating target performance during the quiet period exceed the relatively low costs.⁴ The benefits to target

³ Reduced scrutiny by market participants and increased opportunities to manage earnings have been shown by Du and Zhang (2010) to arise for stub periods that are created when firms change fiscal year-end. These stub periods refer to the period between the last fiscal quarter end prior to the change in the fiscal year-end and the beginning of the first quarter after the fiscal year-end change. Unlike the stub periods in our study, financial statements for the stub periods in that study are filed with the SEC. Those numbers, however, tend to be excluded from databases such as COMPUSTAT.

⁴ Prior research has documented that firms tend to take large, income-decreasing negative one-time charges around structural changes, such as non-routine executive changes (Pourciau 1993). The incentives to understate performance around M&A transactions, which are also often associated with considerable changes, can thus be

managers are quite clear when they are likely to continue with the acquirer, because the incentives of acquirer and target managers are aligned in this case. Even if target managers exit after the transaction is completed, we assume that acquirer managers will create incentives for target managers to cooperate. Given the low costs to target managers for understating earnings during the quiet period, even a relatively small side-payment should be sufficient to induce cooperation.⁵

Third, when considering the costs and benefits of performance management to acquirers, we assume that the benefits of understating target performance accrue to the acquirer in terms of overstated acquirer performance. We rely on the general motivations for earnings management described in prior literature (e.g., Healy and Wahlen 1999), and allow for the possibility that acquirer managers believe that market participants adjust less than fully for overstated acquirer performance (e.g., Erickson and Wang 1999). *Ceteris paribus*, higher post-acquisition performance can help acquirer managers justify the acquisition.⁶

Target earnings can be understated using both accruals (e.g., writing down assets or writing up liabilities) as well as real transactions that accelerate cash outflows and defer cash inflows (e.g., accelerating R&D and maintenance expenditures). The requirement under purchase

viewed as being similar to those around structural changes. The main difference is that the benefits of understatement are potentially lower for target managers, since they may not remain with the firm.

⁵ While we assume that acquirer and target interests can be aligned, there are many potential sources of conflict (e.g., Johnson, 2011). For example, acquirers are concerned about targets' reduced incentives to maintain normal operations. As a result, acquirers require targets to sign a number of covenants, representations, and warranties. Also, since asset and liability values can change during the quiet period, acquirers might insist on purchase price adjustment clauses, that reprice the deal at completion based on changes in net worth and working capital. In the presence of such adjustment clauses, target managers may be less willing to accelerate cash outflows and expenses, which biases against our first prediction. We note, however, that these clauses are typical for private targets, not the public targets we study here.

⁶ Higher post-acquisition earnings appear to be an important objective when designing M&A transactions. For example, acquirers go to great lengths, often to the extent of incurring substantial costs, to be able to account for acquisitions under the pooling of interests method. When describing the billions in value destroyed during AT&T's acquisition of NCR, Lys and Vincent (1995) state: "We find that AT&T paid a documented \$50 million and possibly as much as \$500 million to satisfy pooling accounting, thus boosting EPS by roughly 17% but leaving cash flows unchanged."

accounting to mark target assets and liabilities to fair values for M&A transactions might suggest that earnings management via accruals will not benefit the acquirer in such cases. However, conversations with auditors suggest that target assets and liabilities are typically carried over to the acquirer at book values when the purchase method is used.

Overall, as long as performance understatement by targets can potentially benefit acquirers, and as long as acquirers can create incentives for target managers to understate performance, the discussion above suggests the following general predictions regarding performance management by targets and acquirers:

P1: Targets report lower performance surprises during the quiet period.

P2: Acquirers report higher performance surprises during the four quarters immediately following the acquisition.

P3: Post-acquisition performance surprises for the acquirer are negatively related to the target's quiet period performance surprises.

In addition to these three predictions, we also investigate a number of conjectures about variation in the amount of earnings management undertaken by targets and acquirers based on cross-sectional and time-series variation in the assumed benefits and costs to managers of both acquirers and targets. We list next a number of possible dimensions along which these costs and benefits might vary, and defer a discussion of the underlying justification until Section 5, when we present the associated results. Target performance understatement should be a) greater for serial acquirers; b) greater for acquisitions made by high ERC acquirers, with prices that are more sensitive to earnings surprises; c) lower for deals where both the target and acquirer use the same auditor; d) greater for stock acquisitions, relative to cash acquisitions; e) lower after the passage of SOX regulations; and f) greater if the deal is large relative to acquirer market value..

3 Sample and data

Our sample consists of 2,128 mergers and acquisitions completed between 1985 and 2010 from the Security Data Corporation (SDC) database. We require both the acquirer and target to be U.S. corporations and the transaction value to be at least \$100 million. We also require that the acquirer obtain complete control of the target upon deal completion and that seasonally-differenced earnings per share (EPS), before extraordinary items and discontinued operations, be available for quarters in the quiet period and the quarter before. We get financial data from Compustat, stock return data from CRSP, and analyst forecast data from *I/B/E/S*.

Table 1 provides descriptive statistics for our sample. Panel A shows that the mean (median) pre-acquisition target market value, T_MV , in our sample is \$1,738 million (\$352 million), which is larger than the corresponding mean (median) values of \$1,524 million (\$88 million) for the Compustat universe over the same 1985 to 2010 period, as reported in the second-last row in Panel A. The mean (median) target book-to-market ratio, T_BM , is 0.60 (0.54), which is similar to the corresponding values reported in the bottom row for the Compustat universe. The mean (median) transaction value is \$2,380 million (\$488 million), which are higher than the corresponding pre-acquisition target market values because of the additional premium paid by the acquirer. On average, stock (cash) represents 51 (39) percent of the total consideration paid in these acquisitions.

The mean (median) length of the quiet period, $Ndays$, extends over 174 days (151 days); i.e., on average the acquisition is completed within about six months after the acquisition is announced. Our quiet period begins before the true quiet period for two reasons: a) the first quarter in the quiet period includes days before the acquisition was announced, and b) we use the date when the successful acquirer made its first bid rather than the date that the acquisition was

announced, because the SDC database provides the former but not the latter date. Prior literature has suggested that target firms might overstate earnings during the period when potential acquirers might bid (Anilowski et al. 2009). To the extent that incentives to manage performance upward contaminate our analysis because of measurement error associated with our estimate of the quiet period, we are less likely to observe evidence of understated performance.

Panel B of Table 1 describes the year-by-year distribution of acquisitions in our sample. Consistent with prior research, the flow of transactions varies over time, increasing during the merger booms of the mid 1980s, mid to late 1990s and mid 2000s. The intervening years, especially the period of the recent financial crisis, are associated with fewer transactions. Given that our minimum deal size of \$100 million is not adjusted for inflation, earlier years in our sample are underrepresented.

Table 1, Panel C, describes the distribution of the number of quarters ending during the quiet period for our sample. As the financial data required for our analysis are based on quarterly 10-Q reports, this panel indicates the number of 10-Q reports that financial variables are drawn from. The results in Panel C suggest that for a majority of our sample (65 percent) only one quarter ends during the quiet period. As noted above, because our quiet period begins before the true quiet period, these results overstate the number of quarters actually ending during the quiet period, especially for acquisitions associated with multiple rounds of competitive bids and acquisitions that are initially resisted by targets. For observations where the quiet period spans multiple fiscal quarters we report the average of each measure across those fiscal quarters.

The results reported in Panel D show that the acquisitions in our sample are predominantly friendly acquisitions (more than 95 percent). Less than three percent of the

acquisitions are classified as hostile takeovers.⁷ Acquisitions in our sample appear to be primarily negotiated transactions, which supports our assumption that targets cooperate with acquirers during the quiet period.

4 Empirical results

4.1 Target performance management during the quiet period: tests of P1

4.1.1 Earnings and cash flow surprises

To examine whether target firms report lower performance during the quiet period we first compare earnings and cash flow surprises during the quiet period (quarter t) with those for the quarter before (quarter $t-1$). As mentioned in Section 3, given that the quiet period often spans more than one fiscal quarter, results reported for quarter t are averages of all fiscal quarters ending during the quiet period. And to provide ancillary evidence on such performance management, we also compare analyst forecast errors, and surprises in sales and accruals between quarters t and $t-1$. We believe that same-firm prior quarters represent better controls than peer firms during the same quarter, as we expect fewer concerns about potential correlated omitted variables. As the quarter immediately preceding the quiet period might be associated with incentives for target managers to overstate earnings, we also examine each of the six quarters before the quiet period to confirm that quarter $t-1$ is indeed an appropriate benchmark.

The results of our comparison are provided in Table 2, with mean and median values reported in Panels A and B, respectively. We define earnings, cash flow, sales, and accruals surprises as seasonally-differenced per share numbers, scaled by the book value of equity per share four quarters ago (see Appendix for more details of variable definitions). In effect, we assume that values from four quarters ago represent reasonable expectations for the current

⁷ According to SDC, a transaction is defined as hostile if the target board officially rejects the offer but the acquirer persists with the takeover.

quarter, and we control for firm-specific growth trends by comparing seasonal differences across adjacent quarters.⁸ All variables are Winsorized at the 1st and 99th percentiles of the cross-sectional distributions to mitigate the impact of outliers. The number of observations for each performance metric varies due to data availability.

Table 2 shows that mean and median surprises for earnings before extraordinary items (T_AE/BV) for targets are negative during the quiet period and significantly lower than the quarter before: the mean (median) T_AE/BV reported in the first row of Panel A (Panel B) is -0.18 (-0.02) percent of lagged equity book value per share during the quiet period versus 0.81 (0.27) percent in the quarter before. Not only are these differences statistically significant, they are economically significant relative to typical *levels* of quarterly earnings, which are on average around 2 percent of equity book values. The corresponding surprises and differences in surprises between quarters t and $t-1$ for operating cash flows (T_ACFO/BV), reported in the second row, suggest that target cash flows are similarly understated during the quiet period. The mean (median) difference is -1.25 (-0.36) percent of lagged equity book value per share, both of which are statistically and economically significant.

Results reported in the third row in both Panels of Table 2 suggest that a considerable fraction of the negative difference for earnings before extraordinary items arises from negative differences in operating income (T_AOpinc/BV): the mean difference for T_AOpinc/BV is -0.38 percent, about 40 percent of that for T_AE/BV , whereas the median difference is -0.16 percent, about 55 percent of that for T_AE/BV . The mean difference for T_AOpinc/BV is, however, not

⁸ The use of seasonal differences is based on the assumption that these variables follow a seasonal random walk process, with no transitory components. We recognize that transitory components have been identified in these variables, more so in accruals and cash flows than earnings and sales, which results in measurement error in our estimates of surprises for different performance measures. We do not believe, however, that such errors will bias our results toward the three predictions we make.

statistically different from zero. Note that the magnitudes of pre-tax items, such as $T_{\Delta Opinc}/BV$, should be tax-adjusted before comparing with magnitudes of after-tax items, such as $T_{\Delta E}/BV$.

An alternative explanation for lower quiet-period performance is that it is due to factors such as reduced target manager effort and customers holding back until after the acquisition is completed. If so, we expect substantially lower quiet-period sales. To determine the portion of the earnings reduction that can be explained by sales declines, we need to multiply any sales decline by the net income margin or ratio of net income to sales, which is normally about 5 percent.

The results reported in the fourth rows of Panels A and B of Table 2 for seasonally-differenced sales ($T_{\Delta S}/BV$) contradict this alternative explanation. The mean difference between quarters t and $t-1$ for $T_{\Delta S}/BV$ in Panel A is -0.10 percent of equity book value, which is statistically insignificant. It is also economically insignificant, when multiplied by an average net income margin and compared with the earnings understatement of about 1 percent of equity book value. While the median difference for $T_{\Delta S}/BV$ in Panel B is larger, -0.39 percent of equity book value, and statistically significant at the 10 percent level, it remains economically insignificant when multiplied by the net income margin. These results suggest that the substantially lower quiet period performance is due mainly to higher expenses and cash outflows rather than lower sales and cash inflows.

In contrast to the understated earnings and cash flows observed during the quiet period, neither the mean nor median difference between quarters t and $t-1$ for seasonally-differenced accruals ($T_{\Delta ACC}/BV$), reported in the fifth rows of Panels A and B, respectively, is

significantly different from zero. These results suggest that the lower earnings reported by target firms during the quiet period are due to lower cash flows, rather than more negative accruals.

The results in the bottom rows of both panels of Table 2 indicate that analysts do not fully anticipate the lower earnings reported by target firms during the quiet period. Relative to the mean (median) forecast error of -0.26 (0.04) percent of lagged equity book value per share for our sample of target firms in quarter $t-1$, the mean (median) forecast error of -0.52 (0.00) observed during the quiet period is even more negative. We define forecast errors (T_FE/BV) as actual earnings according to IBES minus analyst consensus forecasts as of the last month of the fiscal quarter, scaled by book value of equity per share four quarters ago. While the magnitudes of forecast error differences are considerably smaller than the corresponding earnings surprise differences, they are highly statistically significant.

Overall, our results in Table 2 show that targets report substantially lower earnings and cash flows during the quiet period, relative to the quarter before. The lower performance appears to be caused by higher expenses and cash outflows, rather than lower sales and cash inflows. Also, the higher expenses do not appear to be due to negative accruals. About half of the reduction in earnings arises from lower operating earnings. Finally, even though analysts expect target firms to report lower earnings during the quiet period, they do not anticipate sufficiently the extent to which target earnings are understated.

4.1.2 Is quarter $t-1$ an appropriate benchmark period?

As discussed in section 4.1.1, the quarter immediately preceding the quiet period might be associated with incentives for target managers to overstate earnings. That is, the results reported in Table 2 might reflect overstated performance for quarter $t-1$, rather than understated performance for quarter t . To confirm that quarter $t-1$ is indeed an appropriate benchmark, we

examine each of the six quarters before the quiet period. We tabulate in Panel A of Table 3 the time-series of earnings surprises (T_AE/BV) and cash flow surprises (T_ACFO/BV) for the quiet period and for quarters $t-1$ to $t-6$.

Table 3 shows that neither the mean nor the median values reported for T_AE/BV and T_ACFO/BV is consistent with this description. Seasonally-differenced earnings and cash flows are strongly positive and relatively stationary in all six quarters leading up to the quiet period.⁹ The quiet period is strikingly different as it exhibits considerably lower mean and median values for T_AE/BV and T_ACFO/BV . The differences in earnings and cash flow surprises between the quiet period and previous quarters are highly significant regardless of which prior quarter is considered.¹⁰

To confirm that the results reported for quarters $t-2$ through $t-6$ are also not contaminated by incentives to overstate performance before acquisitions are announced, we compare the results in Panel A of Table 3 with the mean and median level of surprises for quarterly earnings and cash flows for the Compustat universe reported in Panel B of Table 3. We find that the Compustat universe mean and median surprises resemble the corresponding statistics reported for quarters $t-1$ through $t-6$, and they are much higher than those reported for the quiet period. Taken together, results from both panels suggest that quarter $t-1$ performance is a reasonable benchmark to compare quiet period performance against.

⁹ While the sample sizes for quarters t and $t-1$ are the same, the number of observations decline as we go back each quarter from $t-1$ to $t-6$. For each lag we report statistics based on the subset of targets with available data.

¹⁰ As a robustness check, we examine earnings and cash flow surprises for up to 20 quarters before the quiet period and find similar results. For example, median earnings surprises are very stable, ranging from 0.33% to 0.44% from quarter $t-20$ to $t-7$.

4.1.3 Impact of one-time items on quiet period performance measures

We consider next the extent to which the lower target earnings in the quiet period are due to one-time or non-recurring items being systematically different between quarters t and $t-1$. One-time items are fundamentally different as they are highlighted and separated from other income statement items. As a result, market participants are less likely to misinterpret the persistence of these highly visible earnings components. Thus, it appears that target management would not seek to lower earnings using one-time items, *ceteris paribus*, since market participants are more likely to notice them and be alert to the possibility that subsequent earnings reported by the acquirer might be overstated as a result.

We provide in Panel A of Table 4 the frequency and magnitude of negative and positive one-time items. We define one-time items as the sum of extraordinary items and special items multiplied by $(1-\tau)$, where τ is the top statutory tax rate of 35%, scaled by the book value of equity four quarters ago. Whereas the magnitudes of one-time items during the quiet period are based on averages reported for all fiscal quarters ending during the quiet period, the frequency is coded as 1 for negative and positive items if *any* quarter during the quiet period reports a negative or positive one-time item, respectively. We do so to avoid fractional values for frequency counts. We recognize, however, that this approach results in frequency counts for the quiet period that are not directly comparable to those for the quarter before. To provide more relevant comparisons, we also report in the right half of Table 4 results for a subsample of 1,375 deals with quiet periods spanning only one fiscal quarter.

The results for the full sample suggest that target firms report negative one-time items more frequently during the quiet period (39.38 percent vs. 22.42 percent) and the magnitude of those negative items is slightly larger than those reported in the quarter before (-0.67 percent of

book value per share vs. -0.52 percent). In contrast, the frequency and magnitude of *positive* one-time items reported in Panel A appear to be relatively unchanged between quarters t and $t-1$. The results reported in the right half of Panel A for the subsample with only one quarter in the quiet period are similar to those reported for the full sample.

We do not conduct tests of statistical significance in Panel A because the distributions of negative (positive) one-time items are right- (left-) censored at zero. We use Tobit model regressions in Panel B to deal with censored dependent variables and test for differences in the magnitudes of one-time items between quarters t and $t-1$. The incremental effects associated with the quiet period (t), beyond those for the benchmark period ($t-1$), are identified by the indicator variable D_{quiet} . The estimation results on the full sample in columns 1 and 3 suggest that the magnitude of negative (positive) items is significantly greater (not significantly different) for quarter t relative to $t-1$. The results reported in columns 2 and 4 confirm that those conclusions are not affected by the introduction of controls for two attributes of the target—natural logarithms of firm size ($\log(T_MV)$) and book to market ratio ($\log(T_BM)$)—and three attributes of the acquisition—the percentage of total consideration paid as cash and stock ($PctCash$, $PctStock$), and a dummy variable for hostile takeovers ($D_{hostile}$). Again, the subsample results reported in the right half of Panel B resemble those for the full sample.

4.2 Target earnings management during the stub portion of the quiet period

Given that no financial reports are filed with the SEC for the stub portion of the quiet period, managers of both targets and acquirers likely face lower costs and higher benefits from understating performance during this stub portion, relative to the more visible portion of the quiet period. As a result, we expect considerable performance understatement, especially through accruals, to occur during the stub portion. Although we are unable to conduct a full analysis for

the stub portion, our search of footnotes in post-acquisition filings indicates that some acquirers provide partial “as-if” statements that describe sales and earnings that would have been observed if the target had been acquired at the beginning of the fiscal year. We can infer stub period earnings and sales as the earnings and sales provided in the as-if disclosures minus the sum of actual earnings and sales reported for the acquirer and target over the same period.

Post-acquisition filings exhibit wide variation in the format and content of such disclosures, and each transaction has to be analyzed manually on a case-by-case basis. Given the cost of collecting and analyzing such data, we conduct an exploratory analysis on a subsample (the first 300 observations from our full sample, sorted by acquirer CUSIP). We find that most acquirers do not provide the necessary “as if” data.¹¹ We are able to calculate stub period earnings and sales for 106 and 93 observations, respectively. We then get quarter-equivalent numbers by dividing stub period earnings and sales by the number of calendar days in the stub period and multiplying by 91 (the approximate number of days in a fiscal quarter).

Table 5 compares surprises for earnings and sales for the stub portion of the quiet period with surprises for the quiet period (which excludes the stub portion) and the quarter before the quiet period. The main finding is that there is considerable understatement of income during the stub portion, much more than that during the quarters in the quiet period. Specifically, the mean (median) difference between target earnings surprise (T_AE/BV) during the stub portion and the quarter before, reported in the fifth row, represents an earnings understatement of 4.96 (3.59) percent of equity book value. Not only is that understatement substantial relative to the normal level of quarterly earnings (approximately 2 percent of equity book value), it is many times the

¹¹ Firms with larger acquisitions are more likely to report “as if” numbers. The median deal size is 43.8 percent of acquirer’s market value (in the last quarter prior to deal announcement) for firms reporting “as if” numbers, compared with 10.37 percent for firms not reporting such numbers.

mean (median) understatement during the quiet period of 0.32 (0.32) percent of equity book value, reported in the fourth row.

Whereas there is no evidence of sales declines during the quiet period, relative to the quarter before, there is considerable evidence of sales declines during the stub portion, indicated by a mean (median) value of sales surprise difference, $T_ΔS/BV$, of 2.42 (2.45) percent of equity book value, reported in the fifth row, which is statistically insignificant (significant). As discussed in Section 4.1.1., these sales declines need to be multiplied by the ratio of net income to sales before they can be compared with earnings declines. Using a typical value of 5 percent for net income margins, the earnings effect of the sales declines represents a small fraction of observed earnings declines; i.e., much of the earnings understatement occurring in the stub portion is due to overstated expenses, rather than sales declines.

4.3 Acquirer financial performance after completion of acquisition: tests of P2 and P3

Having confirmed our primary prediction about target firms understating performance during the quiet period, we turn next to an analysis of performance management by acquiring firms subsequent to the closing date. As mentioned in the Introduction, we make three research design choices in response to challenges that arise when investigating post-acquisition performance of the combined entity. First, performance is compared to levels from four quarters later to estimate surprises in performance. Second, we assume that all performance management related to the acquisition is completed in the first four post-acquisition quarters ($t+1$ to $t+4$), where the acquisition completion date is included in quarter $t+1$. Third, we describe surprises based on both GAAP and core earnings as well as analyst forecast errors. We consider two measures of core earnings: a) the non-GAAP EPS that analysts seek to forecast (from IBES) and

b) we add back to GAAP earnings any one-time or special items from COMPUSTAT, after multiplying it by 1- the top statutory tax rate (35 percent).

These design choices have the following implications for our results. Because of normal growth, computing surprise as current quarter performance less performance four quarters hence results in negative surprises. And because we assume that performance boosting based on target performance understatement is completed in the first four post-acquisition quarters, quarters 5 through 8 can serve as a benchmark. Evidence of acquirer performance overstatement in the first four post-acquisition quarters will be indicated by surprises that are less negative than the average surprise across quarters 5 through 8. Finally, we expect GAAP earnings surprises in the first post-acquisition quarter, which includes the completion date, to be substantially negative because of acquisition-related one-time charges. To the extent those charges are eliminated from our measures of core earnings, we don't expect large negative core earnings surprises in the first post-acquisition quarter. Note that as our sample consists only of 100 percent acquisitions, the post-acquisition performance of the combined entity is the performance of the acquirer.

Table 6 reports the time-series behavior of mean earnings surprises, cash flow surprises, and analysts' forecast errors for acquirers over the first four quarters following the acquisition, as well as the averages over the next four quarters (quarters 5 through 8). Panel A presents results for all firms in our sample, whereas Panel B presents results for 518 large deals, where deal values are at least half the market value of acquirers. We expect the results to be stronger in Panel B because the magnitudes of potential performance management will be larger.

Results in column (1) are for GAAP earnings surprise (C_AE/CBV), which equals EPS before extraordinary items for the combined entity in that post-acquisition quarter minus EPS four quarters later, scaled by that quarter's book value per share for the combined equity. We use

end-of-quarter rather than beginning-of-quarter book values as deflators because beginning values for the first post-acquisition quarter refer to the acquirer before the acquisition is completed. The surprises are quite negative in quarter 1, consistent with substantial acquisition-related charges, but then increase to levels for quarters 2, 3, and 4 that are higher than (not as negative as) the average surprise for quarters 5 through 8. The results are significant at the 5 percent level for quarter 4 in Panel A and quarters 3 and 4 in Panel B.

Results in column (2) examine the surprise in our first measure of core earnings ($C_ΔEB/CBV$), which adds back one-time items to GAAP earnings. These results are similar to those for GAAP earnings, as the first post-acquisition quarter is associated with large negative surprises, but the next three quarters are associated with surprises that are less negative than the average level of surprises over quarters 5 through 8. Two of those surprises, for the second and fourth quarters in Panel A, are significantly higher at the 5 percent level than the average for quarters 5 through 8. Surprises in Panel B are significantly higher at the 5 percent level for quarters 2, 3, and 4.

Column (3) provides results for our second measure of core earnings, surprises in IBES EPS ($C_ΔIE/CBV$). While the surprises in the first four post-acquisition quarters are slightly less negative than the average for the next four quarters, none of the differences are statistically significant in Panel A. For the sample in Panel B, all four post-acquisition quarters exhibit higher surprises than the average for the next four quarters, but only the difference in surprise for quarter 4 is statistically significant at the 10 percent level.

Results reported in column (4) for forecast errors (C_FE/CBV) suggest that analyst forecast errors are larger (less negative) for post-acquisition quarters 2, 3, and 4, relative to the average for quarters 5 through 8, in Panels A and B. All of those differences, except that for

quarter 4 in Panel A are statistically significant. Again, these results are consistent with our second prediction that acquirers boost their performance for quarters immediately following the acquisition.

Results reported in column (5) for cash flow surprises (C_ACFO/CBV) are inconsistent with the second prediction. None of the surprises in the first four quarters are less negative than the average for the next four quarters.

In sum, our evidence regarding the second prediction is weak. While evidence inconsistent with that prediction is observed for earnings in the first post-acquisition quarter and for cash flow surprise in all four quarters, our evidence regarding earnings surprises in quarters 2, 3, and 4 is consistent with acquirers boosting post-acquisition earnings, though not all comparisons are statistically significant.

We turn next to the third prediction, which links the first two predictions. We expect more acquirer performance overstatement immediately after the acquisition if targets understate performance more during the quiet period. The results reported in Panel A of Table 7 describe the relation between target's earnings (cash flow) surprise during the quiet period and acquirer's earnings (cash flow) surprise over the first and second post-acquisition quarters.¹² As in Table 2, we compute target earnings and cash flow surprise using seasonally-differenced GAAP earnings (T_AE) and cash flows (T_ACFO), but scale them by the current period equity book value per share of the combined entity (CBV) so that the dependent and independent variables are scaled by the same variable. We regress the four Table 6 measures of acquirer earnings performance for the first and second post-acquisition quarter on target quiet period earnings surprise and the

¹² Results for the third and fourth post-acquisition quarters are not statistically significant.

Table 6 measure of acquirer cash flow surprise for those two quarters on target quiet period cash flow surprise.

Whereas GAAP earnings surprises for acquirers during the first post-acquisition quarter are only weakly negatively related to target earnings surprise during the quiet period, as indicated by the coefficient on $T_ΔE/CBV$ in column (1), the two core earnings surprise measures and forecast errors exhibit a significant negative relation, indicated by the corresponding coefficients in columns (2) and (3). The weaker results observed for GAAP earnings surprises are consistent with our belief that they likely contain acquisition-related charges, which bias against our second and third predictions. The corresponding relation for forecast errors and cash flow surprises reported in columns (4) and (5), respectively, for targets and acquirers are also strongly negative and significant.

We repeat the analysis for the second post-acquisition quarter in Panel B of Table 7. Those results also suggest a significant negative relation between target quiet period performance surprise and acquirer post-acquisition surprise, although the magnitude of the negative relation is lower than that observed in the first post-acquisition quarter. The relation with acquirer GAAP earnings surprise is now significant but the relation with analyst forecast errors is no longer negative.

The results in Table 7 not only support our third prediction, they also provide support for the second prediction, especially for the two areas of performance that were not supported by the results in Table 6: earnings performance for the first post-acquisition quarter and cash flow performance for all four post-acquisition quarters. Whereas the *average* levels of earnings surprises in quarter 1 and cash flow surprises in quarters 1 through 4 are not higher for acquirers than the corresponding average surprises for quarters 5 through 8, from a *cross-sectional*

perspective they are higher than that for other firms with lower target quiet period performance understatement. Overall, the results in Tables 6 and 7 are consistent with target performance understatement being reversed and appearing as acquirer performance overstatement.

5 Additional analyses

As discussed in Section 2, cross-sectional and time-series variation in the costs and benefits to managers of acquirers and targets should result in corresponding patterns of variation in the extent to which target performance is understated during the quiet period. We provide below the results from investigating several conjectures related to variation along different attributes of acquirers and targets. Given the informal nature of these conjectures, many of which were suggested by workshop participants, we do not set them up as predictions that arise from our initial proposition about earnings management around acquisitions. Our objective is to simply document any cross-sectional or time-series variation in target performance understatement.

For each attribute, we form two partitions and report the difference between the two partitions for the following three measures of target performance: seasonally-differenced earnings (T_AE/BV), seasonally-differenced cash flows from operations (T_ACFO/BV), and analysts' forecast errors (T_FE/BV), all scaled by book value of target equity from four quarters ago. We consider differences based on means and medians of the three performance measures and report those results in Table 8.

Panel A of Table 8 compares serial versus non-serial acquirers, where the former group made more than one acquisition during our sample period. To the extent that serial acquirers are more likely to obtain performance understatement from targets, either because they are more experienced or engage in acquisitions partly to overstate performance, their targets should

exhibit more negative performance surprises. The results in Panel A are inconclusive as the differences are small and statistically insignificant (two-tailed tests).

Panel B compares acquirers in the top quartile of earnings response coefficients (ERC) with the remaining acquirers in the lower three quartiles, where higher ERC implies stock prices that are more sensitive to earnings surprises. Acquirers with higher ERC should benefit more from being able to boost performance, and would therefore seek more target performance understatement. We estimate historical ERC by regressing 3-day earnings announcement returns on seasonally-differenced earnings in the 40 quarters prior to the acquisition announcement date, requiring a minimum of 8 quarters of non-missing data. The results suggest that means for earnings surprises and means and median analysts' forecast errors are significantly more negative for high ERC acquirers, at the 10 percent level. Three of four remaining differences are in the same direction, but statistically insignificant.

Panel C compares acquirer/target pairs that have the same auditor with pairs using different auditors. If offices of the same audit firm engaging in audits of matched targets and acquirers coordinate their audits, we expect less understatement because transfers of earnings and cash flows from targets to acquirers are more likely to be detected. Our results are weakly consistent with this conjecture: the mean (median) earnings surprises are significantly less negative at the 10 (5) percent level for pairs with the same auditor. The remaining differences are insignificant.

Panel D compares cash versus stock acquisitions, which is an indirect way to compare acquisitions accounted for under the pooling versus purchase methods, based on the assumption that stock acquisitions are more likely to be accounted for under the pooling method for the period before 2001 when pooling was allowed. Arguments can be made in both directions.

Although we assume that understated book values of assets or overstated book values of liabilities carry over to acquirers' books for both purchase and pooling, it is likely that such carryovers are harder to accomplish under the purchase method. If so, we expect more target performance understatement for stock acquisitions, which we assume are more likely to be accounted for under the pooling method. On the other hand, any earnings target understatement for pooling transactions will be reflected in acquirer performance because all target income and cash flows during the fiscal quarter and year of the acquisition are combined with the corresponding acquirer income and cash flow. If so, acquisitions accounted for under the purchase method have greater incentives to understate target performance. Our results support this latter prediction: we find that all surprises are more negative for cash acquisitions, and two of the differences are statistically significant—for median earnings surprises and median analysts' forecast errors.

Panel E compares transactions completed prior to versus after the passage of the Sarbanes Oxley Act (SOX). If SOX reduced earnings management, we expect less target earnings understatement after the passage of SOX. Consistent with our prediction, we find more negative surprises for the pre-SOX period for five of the six comparisons—all but the median comparison of cash flow surprise. Only the median earnings surprise and median analysts' forecast error are, however, significant.

Panel F compares small and large acquisitions, where acquisition size is measured as the ratio of deal value to the market value of the acquirer. Acquirers should seek more performance understatement for relatively large targets, because the impact on post-acquisition acquirer performance will have a more material effect. We find the opposite results: target performance

understatement is greater for smaller acquisitions for five of the six comparisons, though only the median difference in earnings surprise and analyst forecast errors are statistically significant.

We also compare targets based on whether the acquisition was friendly (N=2,032) and hostile (59) acquisitions (results not tabulated because of the relatively small subsample of hostile deals). To the extent that targets are less likely to acquiesce and engage in earnings understatement in hostile deals, the performance measures should exhibit more negative values for friendly acquisitions. We find no significant differences across the two groups.

The evidence in Table 8 provides support for some of the conjectures we propose based on assumptions regarding the costs and benefits of transferring earnings and cash flows from targets to acquirers. While the analysis is informal, we hope to provide some descriptive evidence that might be useful to other researchers.

6 Conclusions

In this paper we investigate a novel aspect of performance management by targets during mergers and acquisitions: targets' understatement of earnings and cash flows during the quiet period, when targets receive less scrutiny from market participants. The quiet period extends from announcement of the acquisition, when the deal terms are set, to formal completion of the deal. While there is anecdotal evidence suggesting that targets' quiet period income and cash flow are understated and then transferred to acquirers, no empirical study has systematically examined this issue. We attempt to fill this void. We also investigate if acquirers report higher performance in the quarters following completion of the acquisition, and study the cross-sectional relation between target quiet period performance understatement and overstatement of acquirer post-acquisition performance.

The costs of understating target performance are likely to be low during the quiet period. Market participants are less concerned about target performance as the terms of payments to target shareholders have already been set, and analysts following these stocks will soon discontinue coverage. But the benefits to target managers from understating quiet period performance also seem low. However, acquiring firms can benefit from such earnings management if the lower target earnings translate into higher acquirer earnings once the acquisition is completed. We posit that these benefits to acquirers represent the driving force behind target earnings management and assume that acquiring firms are able to provide enough incentives for target managers to cooperate.

Our results suggest strongly that targets understate their quiet period performance. The magnitude of understatement of earnings and cash flows is statistically and economically significant. These lower earnings arise from higher expenses, rather than lower sales. The higher expenses include both operating expenses as well as more negative one-time items. Also, those higher expenses arise from transactions that result in higher cash outflows, rather than negative accruals.

In addition, we find evidence consistent with our prediction that acquiring companies benefit from target performance understatement during the quiet period. While empirical issues limit our ability to document clear evidence of overstated post-acquisition acquirer performance, we are able to document a strong cross-sectional relation between the extent to which target performance is understated during the quiet period and the extent to which acquirers overstate post-acquisition performance.

Appendix: Variable definitions

(Quarterly COMPUSTAT variable names are provided in parentheses under Description)

Variables	Description
<i>A_ERC</i>	Acquirer's earnings response coefficient measured as the coefficient estimate when regressing three-day [-1, +1] earnings announcement returns on seasonally differenced earnings in the 40-quarter period prior to the acquisition announcement date. We require a minimum of 8 quarters.
<i>C_FE/CBV</i>	Combined entity's EPS analyst forecast error (I/B/E/S actual minus median consensus forecast) scaled by combined entity's book value of equity per share, where the forecast is taken from the last month of the fiscal quarter.
<i>C_ΔCFO/CBV*</i>	The combined entity's cash flow surprise, measured as $(CFO_t - CFO_{t+4})/CBV_t$, where CFO is cash flows from operations per share and CBV is book value of equity per share for the combined entity.
<i>C_ΔE/CBV*</i>	The combined entity's earnings surprise, measured as $(E_t - E_{t+4})/CBV_t$, where E is earnings before extraordinary items per share and CBV is book value of equity per share for the combined entity.
<i>C_ΔEB/CBV*</i>	The combined entity's surprise in earnings before special items and measured as $(EB_t - EB_{t+4})/CBV_t$, where EB is earnings before special items per share $((IBQ-SPIQ*(1-35\%))/CSHOQ*AJEXQ)$ and CBV is book value of equity per share for the combined entity.
<i>C_ΔIE/CBV*</i>	The combined entity's surprise in I/B/E/S earnings measured as $(IE_t - IE_{t+4})/CBV_t$, where IE is I/B/E/S actual earnings per share and CBV is book value of equity per share for the combined entity.
<i>DEAL</i>	Deal size, value paid for target (in millions of dollars)
<i>Deal/A_MV</i>	Relative deal size measured as deal value scaled by acquirer's market value of equity at the end of fiscal quarter before deal announcement.
<i>D_quiet</i>	Indicator variable =1 for the quiet period, and 0 otherwise.
<i>D_hostile</i>	Indicator variable =1 for hostile takeovers, and 0 otherwise.
<i>Ndays</i>	number of days in the quiet period, between the acquisition announcement date and the completion date
<i>PctCash</i>	The percentage of cash to total consideration paid for target.
<i>PctStock</i>	The percentage of stock to total consideration paid for target.
<i>T_FE/BV</i>	Target's EPS analyst forecast error (I/B/E/S actual minus median consensus forecast) scaled by book value of equity per share four quarters ago, where the forecast is taken from the last month of the fiscal quarter.
<i>T_MV</i>	Target's market value of equity (in millions of dollars) at the end of the quarter before the acquisition announcement date.

T_{BM}	Target's book-to-market ratio at the end of the quarter before the acquisition announcement date.
$T_{\Delta ACC/BV}$	Surprise in target's accruals per share relative to four quarters ago scaled by book value of equity per share four quarters ago and measured as the difference between $T_{\Delta E/BV}$ and $T_{\Delta CFO/BV}$.
$T_{\Delta CFO/BV}$	Surprise in target's cash flows from operations per share (Changes in OANCFY/CSHOQ*AJEXQ) relative to four quarters ago scaled by book value of equity per share four quarters ago.
$T_{\Delta CFO/CBV}$	Measure of target cash flow understatement in quiet period, defined as the average target's cash flow surprise ($T_{\Delta CFO}$) for quarters during the quiet period minus that for the quarter before the acquisition announcement date multiplied by the number of quarters in the quiet period, scaled by the combined entity's book value of equity.
$T_{\Delta E/BV}$	Surprise in target's earnings before extraordinary items per share (IBQ/CSHOQ*AJEXQ) relative to four quarters ago scaled by book value of equity per share (CEQQ/CSHOQ*AJEXQ) four quarters ago.
$T_{\Delta E/CBV}$	Measure of target's income understatement in quiet period, defined as the average target's surprise in earnings before extraordinary items ($T_{\Delta E}$) for the quiet period minus that for the quarter before the acquisition announcement date multiplied by the number of quarters in the quiet period, scaled by the combined entity's book value of equity per share.
$T_{\Delta Opinc/BV}$	Surprise in target's operating income per share (OIADPQ/CSHOQ*AJEXQ) relative to four quarters ago scaled by book value of equity per share four quarters ago.
$T_{\Delta S/BV}$	Surprise in target's sales per share (SALEQ/CSHOQ*AJEXQ) relative to four quarters ago scaled by book value of equity per share four quarters ago.

* We compute surprises for the combined entity using seasonal differences based on levels from four quarters hence, because levels from four quarters ago are not available for the combined entity.

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Table 1 Description of acquisition transactions*Panel A: Descriptive statistics*

	Mean	Std. dev.	Min.	Q1	Median	Q3	Max.
T_MV	1,738	5,411	1	145	352	1,079	93,073
T_BM	0.60	0.35	0.06	0.37	0.54	0.75	2.04
DEAL	2,380	7,427	100	209	488	1476	164,747
PctCash	38.63	43.12	0	0	13.50	100	100
PctStock	50.80	44.95	0	0	54.94	100	100
Ndays	174	106	31	116	151	200	1786
MV(Compustat)	1,524	9443	0.00	19.61	88.32	439.7	604,415
BM(Compustat)	0.52	1.79	-51.45	0.25	0.51	0.86	10.83

Panel B: Acquisition distribution by year

Year	Frequency	Percent	Year	Frequency	Percent
1985	50	2.35%	1998	165	7.75%
1986	57	2.68%	1999	170	7.99%
1987	43	2.02%	2000	146	6.86%
1988	47	2.21%	2001	102	4.79%
1989	49	2.30%	2002	54	2.54%
1990	20	0.94%	2003	88	4.14%
1991	23	1.08%	2004	103	4.84%
1992	31	1.46%	2005	110	5.17%
1993	34	1.60%	2006	134	6.30%
1994	70	3.29%	2007	137	6.44%
1995	101	4.75%	2008	41	1.93%
1996	112	5.26%	2009	43	2.02%
1997	186	8.74%	2010	12	0.56%

**Table 1 Description of acquisition transactions
(continued)**

Panel C: Distribution of the number of quarters ending during the quiet period

The number of quarters	Frequency	Percent
1	1,375	64.61%
2	515	24.20%
3	143	6.72%
4	53	2.49%
5 and more	42	1.93%

Panel D: Distribution by acquisition type

Acquisition type	Frequency	Percent
Friendly	2,032	95.49%
Hostile	59	2.77%
Others	37	1.74%

The sample consists of 2,128 mergers and acquisitions completed between 1985 and 2010 covered by Security Data Corporation, that satisfy the following conditions: both the acquirer and target are U.S firms, transaction values exceed \$100 million, the acquirer achieves complete control of the target, and seasonally differenced target earnings are non-missing for both the quiet period and the quarter before. The Compustat data reported in Panel A is based on the same 1985 to 2010 period.

T_MV = target's market value of equity (in millions of dollars) at the end of the quarter before acquisition announcement

T_BM = target's book-to-market ratio at the end of the quarter before acquisition announcement

$DEAL$ = value of acquisition (in millions of dollars)

$PctCash$ = the percentage of cash to total consideration paid

$PctStock$ = the percentage of stock to total consideration paid

$Ndays$ = number of days in the quiet period, between the acquisition announcement date and the completion date

Additional details of variables are provided in the Appendix.

Table 2 Target performance surprises during the quiet period and the quarter before

Panel A: Mean performance surprise

	N	Quiet Period	Quarter Before	Mean Difference	(t-statistic)
T_ΔE/BV	2,128	-0.18%	0.81%	-0.99%***	(-3.45)
T_ΔCFO/BV	1,547	-0.41%	0.84%	-1.25%**	(-2.29)
T_ΔOpinc/BV	2,023	0.24%	0.63%	-0.38%*	(-1.67)
T_ΔS/BV	2,110	3.63%	3.74%	-0.10%	(-0.16)
T_ΔACC/BV	1,547	0.32%	-0.23%	0.55%	(0.91)
T_FE/BV	1,470	-0.52%	-0.26%	-0.27%***	(-2.79)

Panel B: Median performance surprise

	N	Quiet Period	Quarter Before	Median Difference	(z-statistic)
T_ΔE/BV	2,128	-0.02%	0.27%	-0.29%***	(-5.89)
T_ΔCFO/BV	1,547	0.01%	0.37%	-0.36%**	(-2.12)
T_ΔOpinc/BV	2,023	0.27%	0.43%	-0.16%**	(-2.36)
T_ΔS/BV	2,110	1.78%	2.17%	-0.39%*	(-1.90)
T_ΔACC/BV	1,547	-0.09%	-0.18%	0.09%	(0.53)
T_FE/BV	1,470	0.00%	0.04%	-0.04%***	(-3.54)

*, ** and *** indicate significant difference at the 10%, 5%, and 1% level, respectively.

This table compares performance measure surprises for the quiet period with that for the quarter before, where the quiet period includes all quarters ending between the announcement and completion of the acquisition. Values reported for the quiet period are means for all quarters included in the quiet period. “Difference” equals the quiet period value of the measure minus that for the quarter before with *t*-statistics and *z*-statistics reported in parentheses for means and medians, respectively. The sample consists of 2,128 mergers and acquisitions between 1985 and 2010.

- $T_{\Delta E/BV}$ = Target’s earnings before extraordinary items per share relative to four quarters ago scaled by book value of equity per share four quarters ago
- $T_{\Delta CFO/BV}$ = Target’s cash flows from operations per share relative to four quarters ago scaled by book value of equity per share four quarters ago
- $T_{\Delta Opinc/BV}$ = Target’s operating income per share relative to four quarters ago scaled by book value of equity per share four quarters ago
- $T_{\Delta S/BV}$ = Target’s sales per share relative to four quarters ago scaled by book value of equity per share four quarters ago.
- $T_{\Delta ACC/BV}$ = Target’s accruals per share relative to four quarters ago scaled by book value of equity per share four quarters ago.
- $T_{FE/BV}$ = Target’s analyst forecast error (I/B/E/S actual minus forecast) scaled by book value of equity per share four quarters ago, where the forecast is made in the last month of the fiscal quarter

All variables are Winsorized at the 1st and 99th percentiles of the cross-sectional distribution each period. In case that the quiet period has multiple fiscal quarters, we report the average of each measure across these fiscal quarters. Additional details of variables are provided in the Appendix.

Table 3 Target earnings and cash flow surprises: up to 6 quarters before the quiet period**Panel A: Earnings and cash flow surprises for the target**

	N	Earnings surprises ($T_ΔE/BV$)		Cash flow surprises ($T_ΔCFO/BV$)	
		Mean	Median	Mean	Median
Q _{t-6}	1,920	1.01%***	0.44%***	0.80%**	0.31%*
Q _{t-5}	1,965	1.32%***	0.38%***	1.64%***	0.64%***
Q _{t-4}	2,012	0.85%***	0.38%***	1.49%***	0.48%***
Q _{t-3}	2,059	0.59%***	0.28%***	1.31%***	0.47%***
Q _{t-2}	2,096	0.71%***	0.32%***	1.71%***	0.41%**
Q _{t-1}	2,128	0.81%***	0.27%***	0.84%**	0.37%**
The quiet period	2,128	-0.18%	-0.02%	-0.41%	0.01%

Panel B: Mean and median earnings and cash flow surprises for the Compustat universe

	N	Mean	Median
Earnings surprises ($ΔE/BV$)	729,785	1.18%	0.28%
Cash flow surprises ($ΔCFO/BV$)	585,536	0.84%	0.37%

*, ** and *** indicate significant difference at the 10%, 5%, and 1% level, respectively, when compared with the numbers in the quiet period.

Panel A reports the time-series pattern of $T_ΔE/BV$ and $T_ΔCFO/BV$. Q_{t-1} is the quarter immediately before the acquisition announcement date, Q_{t-2} is the second quarter immediately before the acquisition announcement date, and so on. The quiet period includes all quarters ending between the announcement and completion of the acquisition, and values reported for the quiet period are means for all quarters included in the quiet period. The sample consists of 2,128 mergers and acquisitions between 1985 and 2010 with non-missing seasonally differenced earnings data for both the quiet period and the quarter before. For comparison purposes, Panel B reports the mean and median earnings and cash flow surprises for the Compustat universe, over the same 1985 to 2010 period.

$T_ΔE/BV$ = Target's earnings before extraordinary items per share relative to four quarters ago scaled by book value of equity per share four quarters ago

$T_ΔCFO/BV$ = Target's cash flows from operations per share relative to four quarters ago scaled by book value of equity per share four quarters ago

Both variables are Winsorized at the 1st and 99th percentiles of the cross-sectional distribution each period. Additional details of variables are provided in the Appendix.

Table 4 Do targets report more negative one-time items during the quiet period?

Panel A: The frequency and magnitude of negative and positive one-time items

	Full sample		Only one quarter in the quiet period	
	Frequency	Magnitude	Frequency	Magnitude
Negative one-time items				
The quarter before	22.42%	-0.52%	23.2%	-0.54%
The quiet period	39.38%	-0.67%	36.51%	-0.68%
Positive one-time items				
The quarter before	7.71%	0.09%	7.71%	0.08%
The quiet period	6.81%	0.08%	5.96%	0.08%

Panel B: Tobit model of negative or positive one-time items (t-statistics in parentheses)

	Full sample				Only one quarter in the quiet period			
	Negative one-time		Positive one-time		Negative one-time		Positive one-time	
	1	2	3	4	5	6	7	8
Intercept	0.034*** (21.62)	0.041*** (7.92)	-0.039*** (-16.89)	-0.048*** (-8.62)	0.034*** (17.08)	0.036*** (5.23)	-0.040*** (-13.33)	-0.050*** (-6.82)
D_{quiet}	-0.015*** (-8.51)	-0.015*** (-8.52)	-0.002 (-1.16)	-0.002 (-1.08)	-0.012*** (-5.57)	-0.012*** (-5.55)	-0.003 (-1.49)	-0.003 (-1.30)
log(T_MV)		-0.002*** (-3.74)		0.003*** (4.73)		-0.001 (-0.92)		0.002*** (3.02)
Log(T_BM)		-0.002* (-1.93)		-0.001 (-0.60)		-0.001 (-0.45)		-0.001 (-0.24)
PctCash		0.000 (0.13)		-0.000 (-1.45)		-0.000 (-0.93)		-0.000 (-0.34)
PctStock		0.0002*** (4.15)		-0.0001*** (-2.83)		0.0001** (1.99)		-0.0001 (-1.44)
$D_{hostile}$		-0.002 (-0.45)		-0.003 (-0.55)		0.003 (0.48)		0.004 (0.63)
Sigma	0.044 (46.51)	0.043 (46.40)	0.028 (20.47)	0.027 (20.47)	0.045 (36.57)	0.045 (36.49)	0.028 (15.94)	0.028 (15.86)

*, ** and *** indicate significant difference at the 10%, 5%, and 1% level, respectively.

Panel A reports the frequency and magnitude of negative and positive one-time items for the quarter before and the quiet period, respectively. The quiet period includes all quarters ending between the announcement and completion of the acquisition, and magnitudes reported for the quiet period are means for all quarters included in the quiet period. Frequencies for positive and negative one-time items during the quiet period are set to 1 if positive and negative items are reported for any quarter during the quiet period. As this procedure might bias upward the frequency counts for the quiet period, we report in the right half of the Table the results from analyses for a subsample with only one fiscal quarter ending during the quiet period. There are 2,128 and 1,375 observations for the whole sample and the subsample with only one fiscal quarter in the quiet period, respectively. Panel B reports the results of estimating a Tobit model for magnitudes of negative and positive one-time items. We use a Tobit model because the distribution of negative (positive) one-time items is right-censored (left-censored) at zero.

**Table 4 Do targets report more negative one-time items during the quiet period?
(continued)**

- One-time items* = Extraordinary items plus special items multiplied by $(1-\tau)$, scaled by beginning book value of equity, where τ is the top statutory tax rate (35%)
- D_{quiet} = An indicator variable, equal to 1 for the quiet period and 0 otherwise
- $Log(T_MV)$ = the logarithm of target's market value of equity (in millions of dollars) at the end of the quarter before the acquisition announcement date
- $Log(T_BM)$ = the logarithm of target's book-to-market ratio at the end of the quarter before the acquisition announcement date
- PctCash* = the percentage of cash to total consideration paid
- PctStock* = the percentage of stock to total consideration paid
- $D_{hostile}$ = An indicator variable equal to 1 for hostile takeovers and 0 otherwise

One-time items are Winsorized at the 1st and 99th percentiles of the cross-sectional distribution. Additional details of variables are provided in the Appendix.

**Table 5 Earnings and sales performance during the stub portion of the quiet period:
a subsample analysis**

	$T_{\Delta E/BV}$			$T_{\Delta S/BV}$		
	N	Mean	Median	N	Mean	Median
Quarter before	106	0.29%	0.20%	93	2.57%	1.58%
Quiet period	106	-0.02%	-0.12%	93	2.55%	1.58%
Stub period	106	-4.67%	-3.39%	93	0.15%	-0.87%
Quarter before vs. Quiet period		0.32% (0.41)	0.32%* (1.66)		0.02% (0.01)	-0.00% (-0.15)
Quarter before vs. Stub period		4.96%** (1.97)	3.59%*** (6.30)		2.42% (0.73)	2.45%*** (3.36)
Quiet period vs. Stub period		4.65%* (1.76)	3.27%*** (5.48)		2.40% (0.76)	2.45%*** (3.65)

*, ** and *** indicate significant difference at the 10%, 5%, and 1% level, respectively.

This table reports the mean and median values of $T_{\Delta E/BV}$ and $T_{\Delta S/BV}$ for the quarter before, the quiet period, and the stub period for a subsample of deals. The quarter before is the last fiscal quarter prior to acquisition announcement date. The quiet period includes all quarters ending between the announcement and completion of the acquisition, and values reported for the quiet period are means for all quarters included in the quiet period. The stub period is from the fiscal ending date of the last 10-Q filed in the quiet period to the acquisition completion date. Because the data is hand-collected and requires case-by-case analysis, we limit the subsample to the first 300 observations in our full sample (ranked by acquirer CUSIP). We are able to calculate stub period earnings and sales for 106 and 93 observations, respectively. Difference indicates the difference between two periods with t -statistics and z -statistics reported in parenthesis for means and medians, respectively.

$T_{\Delta E/BV}$ = target's earnings before extraordinary items per share relative to four quarters ago scaled by book value of equity per share four quarters ago

$T_{\Delta S/BV}$ = sales per share relative to four quarters ago scaled by book value of equity per share four quarters ago

As no reports are filed by the target during the stub period, we infer stub period sales as $\text{acquirer_as_if_sales} - (\text{acquirer_actual_sales} + \text{target_actual_sales})$, where $\text{acquirer_as_if_sales}$ and $\text{acquirer_actual_sales}$ are from the footnotes of acquirer's 10-Q after the acquisition completion date, and $\text{target_actual_sales}$ are from target's 10-Q prior to the acquisition completion date. A similar approach is applied to obtain earnings during the stub period. We get quarter-equivalent numbers by dividing stub period earnings and sales by the number of calendar days in the stub period and multiplying by 91. All variables are Winsorized at the 1st and 99th percentiles of the cross-sectional distribution each period. Additional details of variables are provided in the Appendix.

Table 6 Time-series pattern of acquirer performance in the post-acquisition period**Panel A Full sample (1404 observations)**

Post- acquisition	C_ΔE/CBV	C_ΔEB/CBV	C_ΔIE/CBV	C_FE/CBV	C_ΔCFO/CBV
Quarter	1	2	3	4	5
1	-0.021***	-0.007	-0.003	-0.003	-0.014**
2	-0.003	-0.002**	-0.003	-0.002***	-0.013**
3	-0.004	-0.004	-0.003	-0.002**	-0.010
4	-0.001**	-0.002**	-0.002	-0.003	-0.007
Average 5~8	-0.006	-0.005	-0.004	-0.003	-0.006

Panel B Deal/A_MV>=50% (518 observations)

Post- acquisition	C_ΔE/CBV	C_ΔEB/CBV	C_ΔIE/CBV	C_FE/CBV	C_ΔCFO/CBV
Quarter	1	2	3	4	5
1	-0.038***	-0.014	-0.004	-0.006	-0.022**
2	-0.001*	-0.001**	-0.002	-0.002**	-0.011
3	0.000**	-0.002**	-0.001	-0.002**	-0.011
4	0.003***	-0.001**	0.000*	-0.002**	-0.001
Average 5~8	-0.013	-0.010	-0.005	-0.004	-0.007

*, ** and *** indicate significant difference at the 10%, 5%, and 1% level, respectively, for comparisons of performance measures in each of the first four quarters relative to the average of the corresponding measures for the next four quarters.

This table reports the time-series pattern of the combined entity's performance in the post-acquisition period. The sample consists of 1,404 mergers and acquisitions with non-missing C_ΔE/CBV and target earnings between 1985 and 2010.

**Table 6 Time-series pattern of acquirer performance in the post-acquisition period
(continued)**

$C_{\Delta E}/CBV$	= The combined entity's earnings surprise, measured as $(E_t - E_{t+4})/CBV_t$, where E is earnings before extraordinary items per share, scaled by book value of equity per share for the combined entity, CBV.
$C_{\Delta EB}/CBV$	= The combined entity's surprise in earnings before special items, measured as $(EB_t - EB_{t+4})/CBV_t$, where EB is earnings before special items and defined as E minus special items multiplied by (1-35%), scaled by CBV.
$C_{\Delta IE}/CBV$	= The combined entity's surprise in core earnings, measured as $(IE_t - IE_{t+4})/CBV_t$, where IE is I/B/E/S actual earnings per share, scaled by CBV.
C_{FE}/CBV	= analyst forecast error for the combined entity and measured as $(IE_t - F_t)/CBV_t$, where IE is I/B/E/S actual earnings per share and F is analyst consensus (median) forecast made in the last month of the fiscal quarter, scaled by CBV.
$C_{\Delta CFO}/CBV$	= The combined entity's surprise in cash flows and measured as $(CFO_t - CFO_{t+4})/CBV_t$, where CFO is cash flows from operations per share, scaled by CBV.
$Deal/A_{MV}$	= relative deal size measured as deal value scaled by acquirer's market value of equity at the end of fiscal quarter before deal announcement

We compute surprise for the combined entity using seasonal differences based on levels from four quarters hence, because levels from four quarters ago are not available for the combined entity.

All variables are Winsorized at the 1st and 99th percentiles of the cross-sectional distribution. Additional details of variables are provided in the Appendix.

Table 7 The impact of target earnings shifting on acquirers' subsequent performance surprises

	Dependent variable					
	C_ΔE/CBV	C_ΔEB/CBV	C_ΔIE/CBV	C_FE/CBV	C_ΔCFO/CBV	
	(1)	(2)	(3)	(4)	(5)	
Panel A <i>The first quarter after acquisition (t+1)</i>						
Intercept	-0.021*** (-7.77)	-0.007*** (-4.47)	-0.003*** (-2.62)	-0.004*** (-6.77)	Intercept	-0.015*** (-3.87)
T_ΔE/CBV	-0.064 (-1.16)	-0.098*** (-2.87)	-0.051** (-2.39)	-0.037*** (-2.91)	T_ΔCFO/CBV	-0.210*** (-4.23)
Adj R ²	0.000	0.005	0.004	0.004	Adj R ²	0.017
Panel B <i>The second quarter after acquisition (t+2)</i>						
Intercept	-0.003 (-1.20)	-0.002 (-1.55)	-0.003*** (-3.10)	-0.003*** (-5.53)	Intercept	-0.012*** (-3.69)
T_ΔE/CBV	-0.110** (-2.07)	-0.008 (-0.26)	-0.042** (-2.08)	0.011 (0.98)	T_ΔCFO/CBV	-0.078** (-1.96)
Adj R ²	0.002	-0.001	0.003	-0.000	Adj R ²	0.003

*, ** and *** indicate significant difference at the 10%, 5%, and 1% level, respectively, two-tailed.

This table reports regression results of regressing acquirers' quarter t+1 and quarter t+2 performance measures on targets' quiet-period earnings and cash flow surprises, where quarter t is last quarter before the completion of acquisition. The quiet period includes all quarters ending between the announcement and completion of the acquisition, and values reported for the quiet period are means for all quarters included in the quiet period. The sample consists of 1,404 mergers and acquisitions with non-missing $A_{\Delta E/CBV}$ and $T_{\Delta E/CBV}$ between 1985 and 2010.

$C_{\Delta E/CBV}$ = The combined entity's earnings surprise, measured as $(E_t - E_{t+4})/CBV_t$, where E is earnings before extraordinary items per share, scaled by book value of equity per share for the combined entity, CBV.

$C_{\Delta EB/CBV}$ = The combined entity's surprise in earnings before special items, measured as $(EB_t - EB_{t+4})/CBV_t$, where EB is earnings before special items and defined as E minus special items multiplied by (1-35%), scaled by CBV.

$C_{\Delta IE/CBV}$ = The combined entity's surprise in core earnings, measured as $(IE_t - IE_{t+4})/CBV_t$, where IE is I/B/E/S actual earnings per share, scaled by CBV.

$C_{FE/CBV}$ = analyst forecast error for the combined entity and measured as $(IE_t - F_t)/CBV_t$, where IE is I/B/E/S actual earnings per share and F is analyst consensus (median) forecast made in the last month of the fiscal quarter, scaled by CBV.

$C_{\Delta CFO/CBV}$ = The combined entity's surprise in cash flows and measured as $(CFO_t - CFO_{t+4})/CBV_t$, where CFO is cash flows from operations per share, scaled by CBV.

We compute surprise for the combined entity using seasonal differences based on levels from four quarters hence, because levels from four quarters ago are not available for the combined entity.

Table 7 The impact of target earnings shifting on acquirers' subsequent performance surprises (continued)

$T_ΔE/CBV$	= Measure of target's income understatement in quiet period, defined as the average target's surprise in earnings before extraordinary items ($T_ΔE$) for the quiet period minus that for the quarter before the acquisition announcement date multiplied by the number of quarters in the quiet period, scaled by the combined entity's book value of equity per share, CBV_t
$T_ΔCFO/CBV$	= Measure of target's cash flow understatement in quiet period, defined as the average target's surprise in cash flows from operations per share ($T_ΔCFO$) for the quiet period minus that for the quarter before the acquisition announcement date multiplied by the number of quarters in the quiet period, scaled by the combined entity's book value of equity per share, CBV_t

All variables are Winsorized at the 1st and 99th percentiles of the cross-sectional distribution. Additional details of variables are provided in the Appendix.

Table 8 Cross-sectional and time-series variation in target earnings management

Panel A: Serial vs. non-serial acquirers, where serial acquirers are those that made more than one acquisition during our sample period.

	MEAN			MEDIAN		
	Serial acquirers (n = 598)	Non-serial acquirers (n = 1,534)	t-statistics for difference	Serial acquirers (n = 598)	Non-serial acquirers (n = 1,534)	z-statistics for difference
Diff(T_ΔE/BV)	-1.02%	-0.93%	-0.16	-0.25%	-0.37%	1.35
Diff(T_ΔCFO/BV)	-1.71%	-0.19%	-1.19	-0.55%	-0.08%	-0.83
Diff(T_FE/BV)	-0.29%	-0.21%	-0.46	-0.07%	-0.16%	1.14

Panel B: High-ERC vs. other firms, where high-ERC is defined as the top ERC quartile.

	MEAN			MEDIAN		
	High-ERC acquirers (n = 260)	Other acquirers (n = 780)	t-statistics for difference	High-ERC acquirers (n = 260)	Other acquirers (n = 780)	z-statistics for difference
Diff(T_ΔE/BV)	-1.87%	-0.62%	-1.69*	-0.41%	-0.29%	-0.71
Diff(T_ΔCFO/BV)	-0.61%	-1.19%	0.35	-0.77%	-0.55%	-0.35
Diff(T_FE/BV)	-0.68%	-0.20%	-1.98**	-0.19%	-0.08%	-1.66*

Panel C: Same vs. different auditors (different auditors for the acquirer and the target)

	MEAN			MEDIAN		
	Different auditors (n = 1464)	Same auditor (n = 668)	t-statistics for difference	Different auditors (n = 1464)	Same auditor (n = 668)	z-statistics for difference
Diff(T_ΔE/BV)	-1.22%	-0.51%	-1.67*	-0.35%	-0.17%	-2.15**
Diff(T_ΔCFO/BV)	-1.14%	-2.11%	0.82	-0.46%	-0.55%	0.35
Diff(T_FE/BV)	-0.22%	-0.37%	0.99	-0.11%	-0.07%	-0.89

Panel D: Cash vs. stock acquisition

	MEAN			MEDIAN		
	Cash acquisition (n = 548)	Stock acquisition (n = 789)	t-statistics for difference	Cash acquisition (n = 548)	Stock acquisition (n = 789)	z-statistics for difference
Diff(T_ΔE/BV)	-1.52%	-0.76%	-1.31	-0.52%	-0.16%	-3.42***
Diff(T_ΔCFO/BV)	-2.24%	-2.08%	-0.11	-0.55%	-0.29%	-0.40
Diff(T_FE/BV)	-0.42%	-0.18%	-1.14	-0.17%	-0.05%	-2.28**

Panel E: Pre- vs. post-SOX

	MEAN			MEDIAN		
	Pre-SOX (n = 672)	Post-SOX (n = 1460)	t-statistics for difference	Pre-SOX (n = 672)	Post-SOX (n = 1460)	z-statistics for difference
Diff(T_ΔE/BV)	-1.13%	-0.94%	-0.36	-0.42%	-0.17%	-2.98***
Diff(T_ΔCFO/BV)	-1.26%	-1.23%	-0.03	-0.05%	-0.69%	1.68
Diff(T_FE/BV)	-0.37%	-0.22%	-0.92	-0.16%	-0.04%	-2.59***

**Table 8 Cross-sectional and time-series variation in target earnings management
(continued)**

Panel F: Small vs. large relative acquisition size

	MEAN			MEDIAN		
	Small relative size (n=620)	Large relative size (n = 620)	t-statistics for difference	Small relative size (n=620)	Large relative size (n = 620)	z-statistics for difference
Diff(T_ΔE/BV)	-1.24%	-1.00%	-0.34	-0.45%	-0.15%	-3.51***
Diff(T_ΔCFO/BV)	-2.08%	-1.85%	-0.15	-0.73%	-0.94%	0.47
Diff(T_FE/BV)	-0.45%	-0.20%	-1.31	-0.17%	-0.04%	-1.94*

*, ** and *** significant at the 10%, 5%, and 1% level, respectively. *T*-statistics and *z*-statistics are reported in parenthesis for mean and median differences, respectively

This table reports the difference in performance surprises between the quiet period and the quarter before, where performance surprises are the change of performance measures from a year ago. In case that the quiet period has multiple fiscal quarters, we report the average of each measure across these fiscal quarters. The sample consists of 2,128 mergers and acquisitions between 1985 and 2010.

- Diff(T_ΔE/BV)= the difference in ΔE/BV between the quiet period and the quarter before, ΔE/BV is the company's earnings before extraordinary items per share minus that from four quarters ago scaled by book value of equity per share four quarters ago
- Diff(T_ΔCFO/BV) = the difference in ΔCFO/BV between the quiet period and the quarter before, ΔCFO/BV is cash flows from operations per share minus that from four quarters ago scaled by book value of equity per share four quarters ago
- Diff(T_FE/BV)= The difference in FE/BV between the quiet period and the quarter before, FE/BV is analyst forecast error (actual minus forecast) scaled by book value of equity per share four quarters ago, where the forecast is made in the last month of the fiscal quarter

All variables are Winsorized at the 1st and 99th percentiles of the cross-sectional distribution each period. Additional details of variables are provided in the Appendix.