

Accounting Manipulation and the Market for Corporate Control

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Abstract

In this paper, we investigate how the incentives to conceal accounting manipulation shape the firm's merger and acquisition decisions. To do so, we analyze a sample of 155 firms accused of committing accounting fraud by the SEC during the period 1985 through 2003. During the period leading up to and including the alleged fraud, these firms purchased over 550 targets valued at nearly \$650 billion in the aggregate. These inter-corporate investments can complicate an acquiring firm's information environment in ways that make misreporting harder to discover. During an alleged fraud, we find that firms are more likely than non-fraud firms to acquire another company. They are also more likely to acquire firms that have less public information, are harder to value, and have less similar operations. During the fraud, these firms negotiate provisions that increase the likelihood of deal success, and appear to accelerate the closing date to ensure the targets results will be consolidated with the firms. Finally, acquisitions help to delay the detection of financial reporting. Taken as a whole, our results suggest that managers engaged in accounting manipulation use acquisitions in an ex ante attempt to conceal misreporting.

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Accounting Manipulation and the Market for Corporate Control

1. Introduction

Accounting manipulation involves the deliberate omission or misstatement of financial information. It often starts with small misstatements as a manager uses discretion in the accounting system to effectively borrow against future earnings in order to support outside perceptions of firm value, possibly in response to private information about a negative shock. Pushed beyond a certain threshold, the manipulation becomes fraudulent. The discovery of fraud triggers substantial direct and indirect costs for shareholders (Karpoff et al. 2008a), and significant personal costs for managers (Karpoff et al. 2008b). This gives the manager strong private incentives to initiate and implement real actions that make the manipulation harder to detect.

Corporate acquisitions are usually economically significant transactions that represent a material shock to the firm's reporting and disclosure environment. In this paper, we posit that the manager's decision to misreport accounting information shapes the firm's subsequent acquisitions in ways that make misreporting harder to detect. For example, a merger announcement can shift investor, media and regulator attention to the firm's strategic decisions and away from financial reporting integrity. Moreover, the consolidation of an acquired target makes the acquirer's internal and external accounting reports more complex and costly to analyze. If incentives to conceal misreporting influence acquisition decisions, we expect to observe differences not only in whether or not a deal gets done, but in which firms the manager acquires, how the deals are structured, and when they close.

We analyze the acquisition decisions of a sample of 155 firms accused by the SEC of engaging in accounting fraud (fraud firms) between 1985 and 2003. These firms purchased over 550 entities during the years just prior to and including the period of the alleged fraud and the aggregate value of all acquisitions by fraud firms during this period is approximately \$650 billion.¹ We first provide evidence on the acquisition activity of firms accused of fraud. If mergers and acquisitions are valuable tools to reduce the likelihood of detection, we expect that such firms will be more likely to engage in takeovers following the decision to misreport. On the other hand, acquisitions are costly and can actually intensify scrutiny of the acquirer's accounting information. If the net costs are large enough, fraud firms may forgo even value enhancing acquisitions, and thereby complete fewer acquisitions than non-fraud firms. We find that during the period of the alleged fraud, fraud firms are about 41% more likely than non-fraud firms to make a successful acquisition, and when they acquire, they buy a larger number of targets. For the 248 acquisition attempts during the fraud years, the average target is valued at about \$910 million, has EBITDA of around \$240 million, and annual sales that approach 15% of the acquiring firm's sales.

Taking the deal as given, the manager has a menu of choices that can reduce the likelihood of fraud detection. Strategic choices involve the attributes of the potential target, the negotiated deal terms, and the speed and timing of deal closing. We predict that firms manipulating information will prefer to acquire entities with less historical or comparable information, such as private targets, foreign targets, and subsidiaries, as well as targets with less correlated cash flows, such as those in different industries than the

¹ This is a lower bound estimate of the activity by misreporting firms, as we cannot identify firms that committed fraud but were not caught.

acquirer. Relative to a publicly traded firm from the same industry, these deals would require more effort to learn about the target, how it should be valued, and how it influences the subsequent financial results reported by the combined entity. Based on our sample of completed deals, we find that fraud firms on average are about 20% more likely to acquire a foreign firm, 21% more likely to acquire a subsidiary, and 34% more likely to acquire a firm in a different industry.

To finance an acquisition, a firm must often turn to the external debt and equity markets. But the additional scrutiny from external financing sources raises the likelihood that the misreporting will be discovered relative to financing a deal entirely from internal funds. If this is an important issue, we predict that fraud firms will be more likely to finance acquisitions with cash, particularly when the firm has abundant cash reserves. However, we find no evidence that fraud firms use systematically different financing methods even after conditioning on the availability of internal financing sources.

If acquisitions are valuable tools to conceal misreporting, we expect the firm will speed up the deal completion and negotiate provisions that make the likelihood of deal success higher. Target termination fees and collar bids can be particularly helpful to secure deal success. Consistent with this prediction, we find that acquisitions by fraud firm are significantly more likely to include these provisions.² We also predict that misreporting firms will complete acquisitions more rapidly during the fraud period, allowing fraud firms to incorporate the target's results into the firm's financial statements sooner. Delaying the close buy just a few days can push back the consolidation of the financial statements—and any expected concealment benefits—for months. From the

² Target termination fees award a payment to the acquiring firm if the target breaks off the deal. Collar bids are stock offer provisions that reduce the sensitivity of target stock price to the acquiring firm stock price. We discuss these in greater detail later in the paper.

time of announcement, we find that fraud firms complete deals nearly four weeks, or 22% faster than non-fraud firms. Moreover, for large deals, fraud firms are three times more likely than non-fraud firms to close the deal in the final week of the fiscal quarter. These latter results are direct evidence that fraud firm managers perceive concealment benefits from consolidating the financial results of the misreporting parent and newly-acquired target firm.

Finally, we consider the economic implications of deals motivated by the desire to conceal misreporting. If a deal driven by the manager's desire to conceal fraud is not an efficient use of the firm's resources, shareholders of misreporting firms should react more negatively to the announcement of such deals.³ We find that, for large acquisitions, three-day returns are 319 basis points lower for fraud firms relative to non-fraud firms after controlling for acquirer, target, and deal characteristics, suggesting that fraud firms overpay for targets that have the biggest impact on their financial statements. Our results also suggest that acquisition activity during the first year of the alleged fraud is associated with delayed market recognition of the fraud. The average positive stock returns leading up to the fraud take longer to reverse in firms engaging in acquisitions, evidence that is consistent with acquisitions impairing the ability of outside parties to detect the manipulation.

³ There is anecdotal evidence that fraud impacts merger decisions. In the Department of Justice's fraud indictment of Richard Scrushy at HealthSouth, it was alleged that, "It was further part of the conspiracy that defendant RICHARD M. SCRUSHY and co-conspirators would and did cover up, conceal, and keep secret the fraud, by: (a) controlling and limiting access to HealthSouth's financial information; (b) controlling the internal distribution of financial results; (c) providing fraudulent documentation and false information to its auditors; (d) providing false information to Federal and State taxing authorities; and (e) *fraudulently using the acquisition of other companies to conceal fraudulent assets on HealthSouth's books and in its reports.*" (par. 36. Italics added)

This paper contributes to the literature in multiple ways. First, we extend the literature on financial misreporting/fraud. Much of the existing literature addresses why managers manipulate financial information (Burns and Kedia 2006; Goldman and Slezak 2006; Armstrong et al. 2010; Wang 2011), how it is detected (Dyck et al. 2010; Dechow et al. 2011; Wang 2011), and the impact of fraud detection on managers, directors, shareholders, and creditors (Karpoff et al. 2008a and b; Fich and Shivdasani 2007; Graham et al. 2008). An equally interesting, but less studied question is whether the decision to misreport information affects real decisions like corporate investment during the period of misreporting. To that end, our work complements Kedia and Philippon (2009) by providing evidence that corporate investments can be driven by a manager's desire to reduce the likelihood that their misreporting will be detected.

Second, our results have important implications for understanding how agency conflicts influence the decisions of corporate acquirers (Amihud and Lev 1981; Jensen 1986; Morck et al. 1990; Harford 1999). Acquisitions can add significant complexity to the firm's financial reporting system. Given the expected private costs a manager faces if misreporting is detected, he has strong incentives to pursue acquisitions that conceal the manipulation. We find that deal activity by these CEOs reflects these concealment motives. Taken together, our findings contribute to the growing stream of literature on the role of agency costs, information asymmetry, and financial reporting in the market for corporate control.

The remainder of the paper is organized as follows. Section 2 describes the data. Section 3 presents empirical evidence while Section 4 provides additional analysis. Section 5 concludes.

2. Data and sample

Our research questions pertain to how accounting manipulation influences a firm's acquisitions. In particular, we are interested in identifying cases of relatively aggressive manipulation in which managers will have strong incentives to influence real activities to conceal their actions. This inevitably requires an objective measure of accounting manipulation. Ideally, this measure will reliably capture the accounting manipulation of firms whether or not the misreporting was actually detected. But, obviously, such a measure is difficult to construct and validate. Ex ante measures such as accounting accruals can reflect accounting manipulation (Bergstresser and Philippon 2006), but also capture real changes in the fundamentals of the firm. Ex post measures such as restatements are potentially more useful (for example, Efendi et al. 2007; Graham et al. 2008), but often arise for reasons that have little to do with accounting manipulation.⁴

Our primary measure of accounting manipulation is whether or not the SEC alleges that the firm engaged in fraudulent financial reporting as evidenced by an AAER covering fiscal years between 1982 and 2003 and identified by Dechow et al. (2011).⁵ The AAER are an important sub-classification of enforcement actions analyzed by Karpoff et al. (2008b). We recognize that using a sample of alleged fraud cases to identify accounting manipulation is not without problems, particularly because we are interested in understanding the potential role of acquisitions in hiding the misreporting. Our sample is based on a set of firms that engaged in fraud and were actually caught.

⁴ For example, firms can restate insignificant amounts or restate in response to a misinterpretation of accounting rules. Class-action lawsuits have been used more recently to generate a sample of manipulating firms (Armstrong et al. 2010; Dyck et al. 2010).

⁵ We are grateful to Patty Dechow, Weili Ge, Chad Larson, and Richard Sloan for making this data available.

Thus, firms that engaged in fraud but successfully concealed it are ultimately not treated as accounting manipulators. Separating the effects of fraud commission from fraud detection is not straightforward, and this could lead to a potential interpretation problem. However, to the extent the acquisition measures we focus on impact the probability the fraud is detected, it should push the estimated coefficients in the opposite direction and bias against us finding results consistent with an ex ante concealment motive.⁶

Our analysis occurs at both the firm-year level and the deal level. To be in the sample, a fraud firm is required to complete at least one acquisition announced at any point between 1982 and 2005. For the analysis of merger activity at the firm-year level, all firm years during the sample period are included. Among the 279 firms identified in the AAER sample with sufficient data from Compustat and CRSP (i.e., fraud firms), 155 make at least one acquisition during the 1982 through 2005 sample period (as identified by SDC), and of those, 97 make at least one acquisition during the fraud period. We identify 330 firm-years of data for fraud firms during the alleged frauds with sufficient accounting and stock market information. For the set of non-fraud firms that we use for comparisons, we also require them to complete at least one acquisition during the period 1982 through 2005 and again, include all years with available data.

In Table 1, we summarize a number of characteristics for fraud and non-fraud firms. On average, the SEC accuses managers of engaging in fraud over two fiscal years. However, it is widely believed that the accounting manipulation underlying the fraud begins long before the fraud's alleged start date. Old or missing records and the federal

⁶ It is worth noting that nearly all studies of fraud determinants face a similar problem (e.g. Dechow et al. 2011; Armstrong et al. 2010; Erickson et al. 2006; Schrand and Zechman 2011), and dealing with it is not straightforward.

statute of limitations can prevent the SEC from formally alleging fraud in too early a period. We report distributions for the alleged fraud firms during the fiscal years of the fraud period and three years immediately prior (pre-fraud years), as well as for firms not subject to an AAER during the sample period (non-fraud firms).

For each firm in the sample, we identify all acquisition attempts during the sample period. Deals treated as occurring during the fraud period are those announced during the fiscal period in which the SEC alleges the fraud occurred. For each acquisition attempt, we require that the acquirer seek 100% of the target firm stock, not own more than 50% prior to the acquisition, and that the deal value of the target be at least \$10 million (in 2000 dollars). An acquisition attempt is successful if the firm completes the deal within two years of announcement, otherwise we treat it as unsuccessful.

In a given year, 39% of fraud firms make at least one acquisition attempt during the period of alleged fraud. By comparison, only 23% of non-fraud firms attempt an acquisition in a given year, and the frequency for fraud firms is significantly greater than for non-fraud firms at the 1% level. Among firms that attempt at least one acquisition during the period, fraud firms average 2.31 per fiscal year in which fraud allegedly occurred, compared to 1.41 for non-fraud firms (p -value of difference < 0.01). Relative to non-fraud firms, fraud firms are significantly larger, have higher market-to-book ratios and higher leverage.

In Table 1, Panel B we summarize the characteristics of the attempted acquisitions during the period of the alleged fraud. The average target purchased by fraud firms is valued at \$910 million and has sales of \$820 million and EBITDA of \$240 million. Non-fraud firms purchase targets with an average value of about \$380 million

that have average EBITDA of about \$80 million and for which sales are equal to about \$520 million. On a relative basis, fraud firms acquire targets with equity values averaging 13% of their own value and 2% at the median. On the other hand, non-fraud firms purchase firms whose value averages 33% of the buyer's pre-acquisition value (9% at the median). Both the mean and median relative deal sizes are significantly higher for the non-fraud sample at the 1% level. Shareholder reactions to the deal announcements are generally positive throughout the sample, averaging 0.46% for the 3-day excess return in fraud firms and 0.78% in non-fraud firms. The average positive reaction in both samples is driven by the large proportion of takeovers of private firms, consistent with the findings in Fuller et al. (2002). At the median, fraud firms close a deal in 58 days (75 at the mean) during the fraud period, compared to 81 days (110 at the mean) in non-fraud firms, and these differences are statistically significant.

Finally, we also provide some initial evidence on target type, payment method, and deal structure. 72% of fraud firm targets are private (vs. 74% for non-fraud firms), while 36% of fraud firm targets are subsidiaries (vs. 35% for non-fraud firms) and both differences are insignificant. Fraud firms target foreign firms in 28% of their deals compared to 18% for non-fraud firms and this difference is statistically significant. Fraud firms are more likely to acquire a target with a different 2-digit SIC code (58% vs. 43% of deals), and appear to pay entirely in cash less often (53% vs. 62% of deal). When fraud firms acquire, target termination fees are more likely (19% of deals vs. 12% for non-fraud firms). Fraud firms appear to have high success rate for deals announced during the fraud period, closing 98% of announced deals compared to 94% for non-fraud firms, and the difference is significant.

3. Evidence on accounting manipulation and corporate acquisitions

3.1. Accounting manipulation and acquisition activity

We first address the link between financial misreporting and acquisition activity. An acquisition can provide a number of benefits for a manager manipulating financial information. The right target can generate financial slack for a manager that has exhausted the firm's existing capacity for additional earnings management. The required consolidation of financial reporting information of the acquirer and target also complicates the financial reporting system relied upon by auditors and shareholders and can make post-deal financial statement analysis—and fraud detection—substantially more difficult.⁷ Moreover, the announcement of an acquisition is an important information event. Substantial director, investor, and analyst effort is likely devoted toward understanding the impact of the deal on firm value, particularly when there is less information about the target. This can shift information gathering activities toward understanding the strategic decisions of the firm and away from the financial reporting integrity of the acquirer. To sum up, managers can use takeovers to both obfuscate the firm's true performance and shift attention to other activities of the firm.

⁷ A recent accounting standard, Statement of Financial Accounting Standards No. 141 - *Business Combinations*, explicitly discusses in the introduction to the standard the complexity arising from acquisition accounting, as follows.

“Under Opinion 16 [APB No. 16], business combinations were accounted for using one of two methods, the pooling-of-interests method (pooling method) or the purchase method. Use of the pooling method was required whenever 12 criteria were met; otherwise, the purchase method was to be used. Because those 12 criteria did not distinguish economically dissimilar transactions, similar business combinations were accounted for using different methods that produced dramatically different financial statement results. Consequently:

- Analysts and other users of financial statements indicated that it was difficult to compare the financial results of entities because different methods of accounting for business combinations were used.”

But acquisitions are costly, both in terms of the real resources required to complete a deal and the opportunity cost of the manager's time. Moreover, acquisitions also subject the firm to greater scrutiny from outsiders, particularly when the firm requires external financing. Banks and underwriters provide additional scrutiny, and target directors have a legal obligation to assess the intrinsic value of the acquirer's stock consideration. If the manager believes that engaging in deal negotiations will significantly increase the probability that the manipulation will be detected, we expect to see less deal activity for fraud firms.

In the first column of Table 2, we report the results of a logit regression explaining the probability of announcing at least one deal during the fraud year that is ultimately successful, i.e.:

$$Prob(\geq 1 \text{ deal}) = f(\beta_1 \text{ Fraud year} + \beta_2 \text{ Controls} + \beta_T \text{ Year effects} + \dots) \quad (1)$$

Following Malmendier and Tate (2008), we measure merger activity as a binary variable equal to 1 if the firm announced at least one acquisition attempt during the year that was ultimately successful. The variable of interest is an indicator variable equal to one for firm-years in which the SEC alleges that fraud occurred.⁸ The set of control variables includes the log of equity value, the market-to-book asset ratio, profitability, cash holdings, and book leverage, all measured at the beginning of the fiscal year. Year and industry fixed effects are also included.

As Table 2 indicates, large firms and those with more cash on hand are more likely to make a deal. Consistent with accounting fraud having an impact on acquisition

⁸ We do not benchmark the fraud year effects against pre-fraud year effects because it is not clear when the fraud actually begins. The SEC can be constrained by the statute of limitations when pursuing accounting fraud actions. Moreover, the farther back in time the SEC must go, the more likely the evidence necessary to prevail is incomplete or missing.

behavior, we find that fraud firms are significantly more likely to complete acquisitions during periods of alleged fraud ($p < 0.001$). The average marginal effect indicates that a firm later accused of engaging in accounting fraud is nine percentage points more likely to complete an acquisition than a non-fraud firm in a given year.

We also examine whether the level of deal activity, conditional on making at least one successful bid during the year, is different between fraud and non-fraud firms. The level of activity is defined as the number of successful deals announced during the year, and the coefficient of 0.76 on the AAER indicator as reported in Table 2 suggests that a firm engaged in fraud will make about .76 more acquisitions per year.⁹ The level of increased activity translates into about \$84 million of additional revenues using median sales of the target from Panel B of Table 1, and about \$623 million at the average. Using median relative values, this estimate implies that fraud firms add almost 2% to the acquirer's pre-deal value through acquisitions, and increase sales by 4%. But some acquisitions are quite large; average values from Table 1 imply that fraud firms pick up an additional 10% of value and 11% of sales.

The results in this section provide indirect evidence that misreporting managers engage in acquisitions in part to conceal misreporting, however, a few caveats are in order. First, we do not know whether these decisions actually add to the total investment of the firm or represent substitution from other forms of investment like direct capital investment or minority equity stakes. Second, even if we find no observable change in acquisition activity, concealment motives can still influence mergers. For a given deal, the acquiring firm manager will have a menu of choices involving target type, deal

⁹ Obviously, the acquirers in our sample buy entire firms, not fractions (we restrict ownership to be 100% for completed deals). However, to provide economic interpretation of our results, we multiply the 0.76 by the various mean and median values for fraud firms as reported in Table 1.

structure, and so on. These attributes provide a more direct link to the concealment motive, and we examine them next.

3.2. Accounting manipulation and target type

Among the pool of possible targets, managers can identify those firms that make the acquirer's financial reporting information more complex for outsiders to process, and hence raise uncertainty about the true impact of the acquisition on the acquirer's financial statements and whether managers are manipulating earnings. Taken the decision to make an acquisition as given, the misreporting manager will still prefer targets that have less public information before the deal, assets that are harder for outsiders to value, and operations that are less similar.

Buying firms with less public information complicates an outsider's ability to understand what the firm acquired and how it affects post-acquisition results. For acquisitions initiated prior to July 1, 2001 (the effective date of SFAS 141), APB 16 did not require the buyer to disclose the allocation of purchase price to the assets and liabilities of the target in a purchase transaction. SFAS 141 requires firms to account for all acquisitions using the purchase method, and acquirers must disclose the allocation of purchase price for material transactions only, although these allocations are subjective (Zhang and Zhang 2007).

Historical and forecasted financial data are readily available for most public targets, but unless they have publicly traded debt, private targets have minimal public information. And when an acquirer purchases a private target, the required level of disclosure regarding the target's historical performance is generally minimal. Among acquisitions of private targets in our sample, SDC provides historical accounting data for

only for 27% of these deals. Assuming the target is wholly owned, the SEC looks to the relative size of the target based on total assets or income. If the target's assets or income is less than 20% of the acquiring company's total assets, the acquirer has no obligation to disclose the target's pre-acquisition historical information.¹⁰ To put this in perspective, current regulations would require little or no disclosure of historical financial statements for a cash purchase of a \$2 billion target if the combined entity has assets over \$10 billion. However, disclosure would still generally be required if the acquiring firm is purchasing the target with its stock. Some firms have also been accused of compelling target managers to take a "big bath" prior to deal close so that post-deal earnings appear stronger (Chen et al. 2011). But such actions are difficult to detect when acquiring a private firm due to the lack of pre-acquisition target firm financial data.

In Table 3, we analyze the effect of acquiring firm accounting manipulation on the type of target acquired. The dependent variable takes a value of 1 when the acquirer purchases a target of a given type (for example, a subsidiary). We control for acquiring firm size, market-to-book, profitability, cash holdings, leverage, and announcement year and industry effects. As the first column of Table 3 indicates, fraud acquirers are not more likely to purchase private targets (the coefficient on the fraud year indicator is insignificant).

¹⁰ Between 20% and 40%, only the most recent fiscal year must be disclosed. Between 40% and 50%, two years must be disclosed, and above 50%, three years. This threshold was 10% before 1996, but still only required a single year of results for acquisitions between 10% and 20% of the combined company. Beginning in 2000, no disclosure is required if the payment to target shareholders is entirely in cash and the acquiring firm shareholders do not vote. When the private target is a subsidiary of another corporation, the consideration is almost always in cash. When the unlisted target is a standalone entity, stock is used more frequently. See Officer (2007) for further analysis of purchase prices of private targets. See 17 C.F.R. §210 generally for current requirements. Rodrigues and Stegemoller (2007) provide a useful discussion of the requirements for disclosure of target financial information, and argue that many material acquisitions do not require disclosure of target financial statements.

There are other dimensions of the target that have potentially important implications for post-deal transparency. Foreign firm takeovers lead to similar limitations in pre-acquisition information, as their financial statements will not generally be constructed following U.S. GAAP even if they are publicly traded. Subsidiary targets can also create transparency problems. Subsidiary financial information is typically private, and Officer (2007) finds that parent firms are willing to sell their subsidiaries at discounts when alternative sources of financing are too costly. Thus, buying a subsidiary is beneficial both because these firms are private and because the acquirer is likely to have more bargaining power. Finally, we consider whether misreporting impacts the preference for targets in different industries as diversifying acquisitions reduce the correlation in economic performance across units and arguably impedes efforts to detect misreporting in the parent firm.

In the second column of Table 3, we focus on the propensity to acquire a foreign target, and the results indicate that fraud acquirers are about 3.6 percentage points more likely to acquire a foreign firm than non-fraud acquirers, although the difference is only marginally significant ($p < 0.05$). Given the average probability of acquiring a foreign target for non-fraud firms of 0.18, this marginal effect implies that fraud firms are 20% more likely to acquire a foreign firm ($0.036 / 0.18 = 0.2$). Although fraud firms do not appear to prefer private targets on average, they do show a strong preference for subsidiaries and are seven percentage points more likely to acquire one ($p < 0.01$). This suggests that subsidiary targets provide more concealment benefits for fraud firm managers. Given subsidiary make up about 35% of the acquisitions by non-fraud firms,

this implies that fraud firms are about 21% more likely to acquire a subsidiary during an alleged fraud.

In the final column, we investigate whether fraud firms appear to prefer targets in different industries. We define industries broadly at the 2-digit SIC level and find that fraud firms are 14.5 percentage points more likely to acquire a target in a different industry ($p < 0.01$) than non-fraud firms. Since 43% of the acquisition targets of non-fraud firms are in a different two-digit industry, these estimates suggest that fraud firms are 34% more likely to make a diversifying acquisition.

Overall, we interpret our evidence in this section as consistent with the prediction that firms engaged in accounting manipulation use acquisitions to provide concealment benefits by acquiring firms that undermine the ability to understand what the firm acquired and how it affects post-acquisition results.

3.3. Accounting manipulation and the structure of acquisitions

For the manager attempting to conceal misreporting through takeovers, we expect to observe strategic preferences in how the deal is executed. We consider the source of financing, the use of termination fees and collar bids, and the speed of deal closing. Because the characteristics of the target can be important determinants of how the deal is structured, we control for the relative size of the target and whether or not the target is private or foreign. If external scrutiny by capital providers has a material impact on the likelihood misreporting will be uncovered, the firm should finance the deal with internal funds first.

A firm that must borrow cash to acquire the target faces scrutiny from lenders, and a buyer offering stock will likely need to register the securities with the SEC, obtain

shareholder approval, deal with target directors who have a legal obligation to assess the intrinsic value of stock consideration, and respond to legal challenges mounted by target shareholders.¹¹ The predictions, therefore, hinge on whether the acquisition requires external financing, and whether managers will prefer to avoid the scrutiny of lenders in a debt-financed acquisition relative to the scrutiny of shareholders, directors, and their advisors (management, advisors, etc.) in a stock-for-stock transaction. Evidence in Dyck et al. (2010) suggests that capital providers, particularly debt holders, are usually not the first parties to detect fraud. Thus, we have no clear predictions for the influence of accounting manipulation on the method of payment.

If the acquiring firm's equity is overvalued as a result of the misreporting, stock financing should be relatively cheap. Following Shleifer and Vishny (2003), we therefore expect that such overvalued firms are more likely to pay with stock. However, this effect is not limited to fraud firms and thus we control for overvaluation-related incentives with the market-to-book ratio. As Table 4, Panel A reveals, high market-to-book firms are more likely to use stock as expected, while fraud firms appear similar to non-fraud firms in their method of payment. In other words, financing decisions appear to have little impact on the perceived likelihood the fraud will be detected.

¹¹ In a control transaction, the target's board of directors has an obligation to pursue transactions that offer the best value reasonably available to shareholders. When stock is offered, the target's board should focus on its value as of the date it will be received by shareholders. As stated by the Supreme Court of Delaware:

"In assessing the bid and the bidder's responsibility, a board may consider, among various proper factors, the adequacy and terms of the offer; its fairness and feasibility; the proposed or actual financing for the offer, and the consequences of that financing; questions of illegality...the risk of nonconsummation...the bidder's identity, prior background..." (*Macmillan* 559 A.2d at 1282 Del. 1989)

Moreover, the business judgment rule requires directors to become informed to the extent reasonable under the circumstances. In terms of the assessing the value of an acquirer's stock offer, directors:

"...should be entitled to rely on the accuracy of public disclosure reports with respect to the acquirer filed with the Securities and Exchange Commission unless the directors have reason to believe that such reports are inaccurate or require further investigation." (American Law Institute, p. 395)

To the extent the deal helps conceal the misreporting, the acquirer should be expected to take steps that ensure the deal's success and accelerate the time to completion. Target termination fee agreements raise the target's cost of breaking off deal negotiations, and are associated with an increased likelihood of deal completion (Bates and Lemmon 2003; Officer 2003). Thus, we expect fraud firms are more likely to demand their use in merger negotiations. In Panel B of Table 4, we find that fraud firms have a 2.6 percentage point higher probability of including a target termination fee than non-fraud firms ($p < 0.05$).

Stock offers are usually expressed in terms of an exchange ratio in which the target shareholders will receive a specified number of acquiring firm shares for each share they own in the target. Since the value of the offer is tied to value of the acquiring firm's stock, target shareholders could demand renegotiation or walk away from the deal if there is an adverse change in the acquiring firm's stock price before the deal closes. However, a collar bid provides some insurance against this renegotiation (Officer, 2004). We examine fixed exchange collars here. A fixed exchange collar provides that the exchange ratio is fixed within some range of the acquirer's share price. If the buyer's share price climbs past an upper bound, the exchange ratio is adjusted down to cap target shareholders proceeds. More importantly, if the acquiring firm's share price declines below a lower bound, the exchange ratio is adjusted upward to provide a floor. Managers engaged in accounting manipulation understand that their share prices are already overvalued, but offering this provision ex ante reduces the incentives for target managers and directors to perform more extensive due diligence. In the second column of Table 4, Panel B we examine the propensity of stock deals to include fixed exchange collars. We

find that fraud firms are over 4 percentage points more likely to include such a collar ($p < 0.01$). Since 10% to 15% of stock deals include some form of collar (depending on the year), this effect also appears economically significant.

We next examine the impact of misreporting on the time it takes to complete a deal once it is announced. After excluding deals that are first announced on the day the deal is completed (about 25% of the sample), the results in the final column of Table 4 imply that once the deal is announced, fraud firms can complete a deal 24 days faster than a non-fraud firms ($p < 0.01$). Given that the average completion time is 110 days for non-fraud firms, our results imply that fraud firm managers take actions that cut the time it takes to complete the deal by about 22% (24 days / 110 days).¹²

Delaying the close of the acquisition by just a few days can postpone incorporation of the target financial statements by months. Thus, a more direct test of the concealment hypothesis is to look at the timing of deal closings. We expect fraud firms will attempt to accelerate deal to closings to occur before the end of a fiscal quarter.¹³

For each successful deal, we identify the fiscal quarter end closest to the deal close date. Deals closing in the last seven days of the fiscal quarter (ending on the quarter end date) represent week 0. Deals closing in the week before represent week -1, and so on. For all deals, the distribution of deal close dates around the nearest quarter end dates is represented in Figure 1a and suggests that fraud firms do close a higher percentage of all deals (16.6%) just before the fiscal quarter close (week 0) relative to non-fraud firms

¹² Interestingly, Grinstein and Hribar (2004) find that acquiring CEOs that take longer to complete a large deal have higher future compensation. They interpret this result as longer completion times requiring more effort which the CEO is compensated for. In this light, our results suggest that fraud firm managers perceive greater benefits from speeding up the close and place a lower value on the potential wage increase from extending the closing period.

¹³ We thank Maureen McNichols for suggesting this test.

(11.3%). The difference between these frequencies, as reported in panel A of Table 5, is significant ($p < 0.01$).

If the manager's desire to accelerate the close is a function of the materiality of the deal, then we expect to find stronger results for large deals. In figure 1b, we focus on targets valued at least 10% of the acquirer, and find that fraud firms close 31% of their large deals in the final week of the quarter while non-fraud firms close 11.3% of their large deals during the same week. The difference is significant ($p < 0.01$) and provides further support for the conjecture that firms making deals to conceal misreporting will accelerate the closing dates to get the target's financial information on the combined entity's books as quickly as possible.¹⁴

In panel B, we run logistic regressions in which the dependent variable is a binary variable equal to one if the deal closes in the final week of the closest fiscal quarter, and zero otherwise. We control for firm size and year effects, and the results confirm our univariate findings—fraud firms are more likely to close deals during the last week of the quarter and this propensity is an increasing function of target size. These findings are robust to controlling for a number of other attributes of the deal.

3.4. *Do misreporting acquirers overpay?*

Undertaking an acquisition to conceal accounting manipulation is inefficient. Therefore, if these deals are being driven by concealment motives, the market's reaction to an acquisition announcement should be more negative in our sample of fraud firms. This assumes that the market at least partially understands that the acquisition is inefficient, that is, the value added by the acquisition is less than what the firm paid. The

¹⁴ During the years before the fraud, there is no apparent clustering of deal closings around fiscal year end.

univariate evidence in Table 1 reveals no significant differences in announcement returns between fraud and non-fraud firms, and the reactions tend to be positive.

Announcement returns are potentially related to the fundamental characteristics of the acquirer (firm size, market-to-book), the deal (e.g., method of payment, competition, hostility, relative size), and the target (e.g. private, subsidiary, foreign, and diversifying). For example, prior research finds that announcement returns tend to be larger for small acquirers (Moeller et al. 2004) and those that acquire private firms and subsidiaries (Fuller et al. 2002). Travlos (1987) finds that acquirers offering equity have lower returns, while Morck et al. (1990) show that public acquirers have lower returns on the announcement of a diversifying acquisition.¹⁵ We therefore control for these factors and include industry and year fixed effects. The results, reported in the first column of Table 6, suggest that market participants do not appear to react any more negatively to acquisitions announced by fraud firms ($p > 0.10$).

Fraud firms tend to be larger and acquire relatively smaller firms. Thus, even if these acquisitions are viewed negatively by the market, it will be difficult to identify measurable effects if they exist. In the second column of Table 6, we interact the fraud deal indicator with an indicator for large deals, defined as purchase price of at least 10% of the acquirer's pre-deal value. About 25% of the acquisitions by fraud firms occurring during the alleged fraud cross this threshold, and among those, announcement returns are 319 basis points lower than large deals done by non-fraud firms ($p < 0.01$). Interestingly, among small deals, announcement returns are 1.15% larger for fraud firms than for non-

¹⁵ Lower returns are also evidence in hostile offers (Schwert 2000) and those by cash-rich acquirers (Harford 1999).

fraud firms ($p < 0.05$). Overall, the results suggest that among large acquisitions, those by misreporting firms tend to destroy the most value.

4. Additional analysis

4.1. Do acquisitions delay fraud detection and market adjustment?

To this point, the empirical analyses have centered on a comparison of fraud firms to non-fraud firms. In this section, we try an alternative approach by comparing fraud firms that make acquisitions during the fraud and those that do not. If the primary role of accounting manipulation is to mislead investors about the fundamental value of the firm, then actions that conceal that manipulation should lead to slower detection and market adjustments.

We partition fraud firms based on whether or not they announced a successful acquisition in the first year of the fraud. This approach avoids a potential mechanical relation between deal activity and duration of fraud that would arise if we looked to multiple years. In Table 7, Panel A we report the mean and median firm characteristics, measured at the end of the last pre-fraud year, for firms that announce a deal (38%) in the first year and those that do not (62%). Based on a comparison of the medians, the firms are largely similar in terms of size, profitability, and cash holdings, and leverage. Firms that do deals have slightly higher market-to-book ratios.

As argued earlier, actions that conceal the fraud should lead to a slower detection and market adjustments. Thus, if mergers and acquisitions have the effect of concealing underlying financial manipulation, we would expect overvaluations to persist longer in acquiring firms than in fraud firms not completing acquisitions.

Figure 2 depicts the median cumulative raw returns surrounding the beginning of the fraud period, where month zero is defined as the calendar month ending during the first month of the alleged fraud. Firms are partitioned on the basis of announcing a completed deal in the first year of the alleged fraud. The figure suggests that in the last year leading up to the fraud, returns are similar. However, as the fraud begins, firms with no acquisitions during the first year appear to see their returns reverse starting a few months into the year, earlier than firms that announce at least one acquisition.

A concealment explanation for acquisitions implies that to the extent the misreporting is impounded in stock prices and results in overvaluation, acquisitions will delay the recognition of misreporting and the adjustment to stock price. To test this notion formally, we adopt a model of return reversal. The dependent variable is the stock return starting in the month the fraud is alleged to have occurred and ending 3, 6, 12, 24, or 48 months out. The primary independent variable that serves as a proxy for overvaluation is the prior stock returns over an equally long window ending just before the fraud period. To test whether firms that do deals appear better able to conceal the fraud, we interact prior returns with an indicator for M&A activity in the first year of fraud. We also control for firm size and market-to-book.

The results, reported in Table 7, Panel B, imply that the reversal of stock returns is slower for firms doing deals in year 1 for windows between 6 and 24 months. For example, the results suggest that firms with strong returns leading up the fraud period are less likely to experience a reversal in the months following the fraud if they make an acquisition. When the return period equals 24 months, the coefficient on interaction between prior returns and acquisition activity is 0.25 ($p < 0.01$). In our study, we do not

incorporate exactly when the fraud was detected as measuring that is not straightforward. However, the result that fraud firms not making acquisitions have faster reversals of stock overvaluation is consistent with acquisitions having the effect of concealing the misreporting from shareholders.

4.2. *An alternative measure of misreporting*

Following recent studies on accounting manipulation, we rely on enforcement actions taken by the SEC against firms with alleged material misstatements to objectively identify a set of firms with a demand for transactions that conceal accounting manipulation. While this approach is unlikely to include firms that did not misreport, it likely misses a substantial number of firms that did misreport but successfully concealed their actions from outsiders.¹⁶ Dealing with this issue empirically is not straightforward. Ideally we would like to use the available data to identify manipulating firms without reference to whether or not they were actually caught. But conceptually, such a metric is unlikely to be a particularly powerful way to identify manipulating firms. Manipulation demands opacity such that regulators and investors should have a difficult time detecting and proving the misreporting in the first place. If misreporting were obvious, managers would have much weaker incentives to misreport.

Nevertheless, we consider an ex ante measure of the likelihood of committing fraud using the F-score approach developed in Dechow et al. (2011). Dechow et al. use the sample of AAER firms to generate a model that expresses the probability of fraud as a

¹⁶ While our interest lies in understanding the demand for acquisitions as a way to reduce the ex ante likelihood the firm's misreporting will be detected, an alternative interpretation of the results is simply that it reflects differences in the ex post likelihood of getting caught. This same criticism applies to nearly all studies that rely on samples with clear selection issues. This criticism, however, leads to the opposite prediction in nearly all of our tests, and as a result biases us against finding results consistent with the concealment motive.

function of changes in the fundamentals and accounting attributes of the firm. We use their parameter estimates to generate an F-score for each firm-year in the sample, rank the firm into deciles based on the F-score. We then replicate our main analysis by replacing the AAER indicator variable with the F-score. In this analysis, we include all fraud and non-fraud firms with available data and disregard whether the manipulation was actually detected. The F-score rank is based on data observed for the prior fiscal year to mitigate the mechanical effects of a merger on the inputs to the F-score, and is scaled to take values between 0.1 and 1.

Our results are qualitatively similar, with the following exceptions. In untabulated results, we find that the association between the ranked F-score and the likelihood of acquiring a private firm is positive and significant ($p < 0.001$), with an average marginal effect equivalent to a 0.5% increase the likelihood of acquiring firm for every decile shift in F-score. However, high F-score firms are not more likely to acquirer foreign firms or subsidiaries. We also find some evidence that high F-score firms are less likely to use cash ($p < 0.05$), and the association between the ranked F-score and the market reaction to deal announcement is insignificant.

4.3. *Matched sample*

In our main tests, we analyze the merger decisions for the entire sample of firms with available data. But firms accused of engaging in fraud are overrepresented by large firms and firms in the high-tech, retail, and service industries. To the extent the relation between the independent variables and merger activity is a function of the propensity to manipulate accounting information, our results must be interpreted with care.

To address this criticism, we analyze the merger decisions of fraud firms against a sample of non-fraud firms with objectively similar characteristics. To analyze deal activity at the firm-year, we match each fraud firm to a firm that was not accused of fraud during the sample period by industry (4-digit SIC if available, otherwise 3-digit, and so on), book value of assets (within 30% of the fraud firm), and closest return on assets. For the 299 fraud firm-years for which we find an available match, we find no difference in the propensity to complete a deal. However, among firms that do deals, we continue to find fraud firms completing more acquisitions. Results are similar in other analyses as well.

4.4. Endogeneity: Can the results be explained by manager-specific effects?

Recent research suggests that managerial confidence and incentive structures impact the way they make acquisitions. For example, the overconfident managers in Malmendier and Tate (2008) are more likely to make acquisitions but also tend to overpay. CEO's with illiquid equity portfolios tend to make diversifying acquisitions and are more likely to pay with stock (Cai and Vijh, 2007). This raises the question of whether our results can be explained by unobservable characteristics of fraud firm managers that drive both their incentive to manipulate accounting information and their acquisition decisions. We address this endogeneity issue in several ways. First, prior literature offers little empirical evidence to support a link between financial misreporting and either managerial confidence or incentives. Schrand and Zechman (2011) test whether overconfident managers are more likely to commit fraud and find mixed evidence. Bergstresser and Phillipon (2006), Efendi et al. (2007), Armstrong et al. (2010),

and Erickson et al. (2006) test the link between equity incentives and fraud, but find mixed evidence.

Second, we note that many of our results do not support the endogeneity argument. For example, endogeneity does not explain why fraud firms tend to close the deal in the last week of fiscal quarter end. It is also unclear why fraud firms tend to acquire less transparent targets and close the deal more quickly.

Finally, we conduct additional empirical analysis by comparing acquisition decisions during the fraud years with those in the pre-fraud years. If our evidence is driven by an unobservable manager effect, we expect to see no differences in acquisition behavior before and during the fraud. A caveat of this approach is that identifying the misreporting start date is difficult. The starting date is based on allegations in the SEC's enforcement release, and these are constrained by a federal statute of limitations (private actions are even more constrained).¹⁷ As it is widely believed that fraud starts long before the alleged starting date, we drop the year directly before the start of the alleged fraud date, and find results that are qualitatively similar to our earlier findings (not tabulated).¹⁸ In this way, although we cannot completely rule out the endogeneity issue, we provide further assurance that our results are not driven by some unobservable characteristic of fraud firm managers.

4.5. *Earnings attributes of target firms*

In theory, the strategic choice of an acquisition target can provide financial slack that facilitates concealment of misstatements. For example, buying a target with high expected earnings provides a cushion against which to reverse the parent's manipulated

¹⁷ Post-fraud comparisons are a possibility as well, but managers are often let go after the fraud.

¹⁸ We find similar results if dropping two or three years directly before the alleged fraud starting date.

information. This leads to the prediction that firms manipulating accounting information are more likely to purchase companies that provide such accounting slack. However, empirically testing this proposition is difficult for at least two reasons. First, we do not generally observe the future earnings expectations for these targets. Historical results are only available for a subsample of private targets, and in those cases we only tend to observe a single year of data. Because of fairly soft requirements to disclose historical financial information for private targets, it could be the case that the targets which bring the most accounting slack are those which the acquirer does not disclose historical results. Moreover, of those we do observe, we only have access to one year historical data and are unable to observe future earnings expectations. Second, since the acquirer's reported information has presumably been manipulated, a comparison to the true performance of the acquirer becomes more difficult.

Nevertheless, in robustness tests not reported here, we analyze the relative performance of target and acquiring firms. We focus on four measures: profit margin, assets turnover, return on assets, and earnings-to-price. Accounting measures for the target are obtained from SDC and reflect performance for the last year before the deal is announced. Market value for the target is based on transaction value, that is, the purchase price of the target's outstanding equity. Accounting and market value data for the acquirer are taken from the end of the fiscal year preceding the acquisition announcement.

We focus on relative profitability defined as the simple difference between the target and acquiring firms' performance measures. We control for acquirer size, the relative size of the target, market-to-book, cash holdings, leverage, and indicators for

private targets, foreign targets, and targets in different industries. Based on the profitability metrics we find that fraud firms acquire targets with higher profit margin and higher assets turnover than non-fraud., The results on the return on assets are marginally significant and the results on earnings-to-price are statistically insignificant (in the right direction though).

5. Conclusion

In this paper, we analyze the implications of aggressive accounting manipulation for corporate acquisition decisions. A recent stream of literature in accounting and finance has produced many interesting results on how agency costs, executive personality traits, incentive contracts, and corporate governance mechanisms shape the frequency and form of a firm's acquisitions. We add to this body of evidence by analyzing the acquisition behavior of a set of firms whose managers manipulate accounting information presumably because of incentives to conceal their misdeeds from discovery.

For a sample of 155 firms accused of committing accounting fraud by the SEC during 1985 through 2003, we find that fraud firms are more likely to make successful acquisitions during the period of the alleged fraud. We also find that during the fraud window, acquirers are more likely to purchase foreign targets, make diversifying acquisitions, and purchase subsidiaries relative to non-fraud acquiring firms. We also find that fraud firms are more likely to demand termination fee agreements, agree to certain collar bids, complete acquisitions more rapidly during the fraud window than do non-fraud firms, and are more likely to complete an acquisition just prior to the end of a reporting period.

Overall, these results are consistent with the conclusion that misreporting firms engage in more acquisitions to help conceal and perpetuate the accounting manipulation. Moreover, our results suggest that acquirers choose acquisitions that subject the firm to less scrutiny and softer disclosure requirements to reduce the likelihood the manipulation is discovered. We find that shareholders react more negatively to announcements of large deals during the period of the alleged fraud, as well as evidence that capital market recognition of accounting manipulation is delayed in deals in which the firm made an acquisition in the first year of the alleged fraud. Using alternative approaches that rely on an ex ante measure of accounting manipulation (F-score), and matching with non-fraud firms on various characteristics, we continue to find evidence consistent with managers using acquisitions to conceal misreporting.

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Figure 1a
Distribution of deal close dates relative to nearest fiscal quarter end of acquiring firm for fraud and non-fraud acquirers – all deals

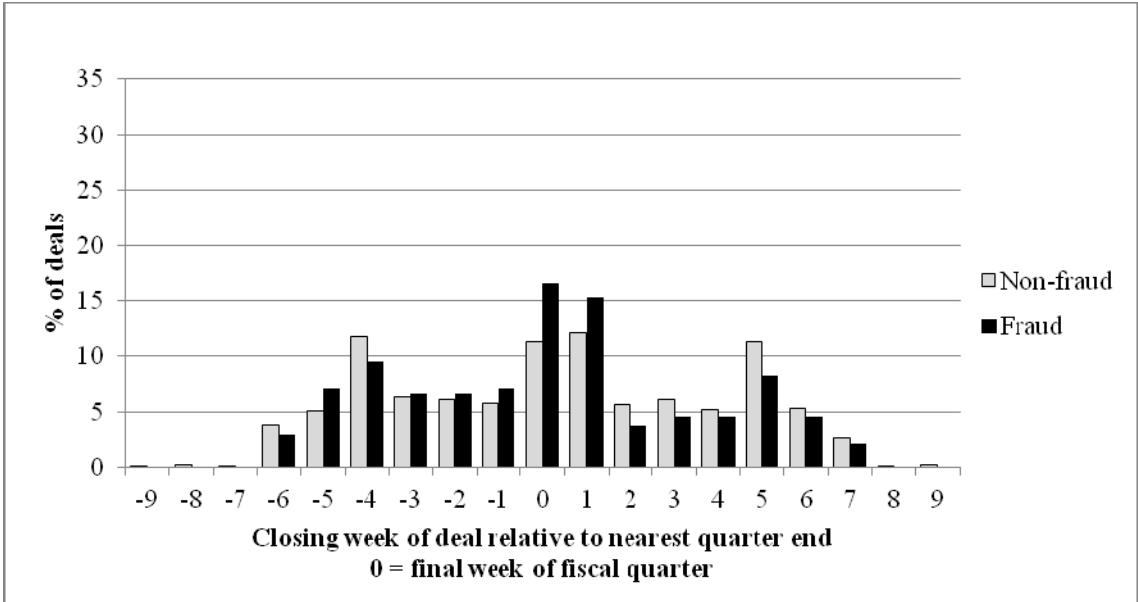


Figure 1b
Distribution of deal close dates relative to nearest fiscal quarter end of acquiring firm for fraud and non-fraud acquirers – large deals ($V_T/V_A \geq 0.1$)

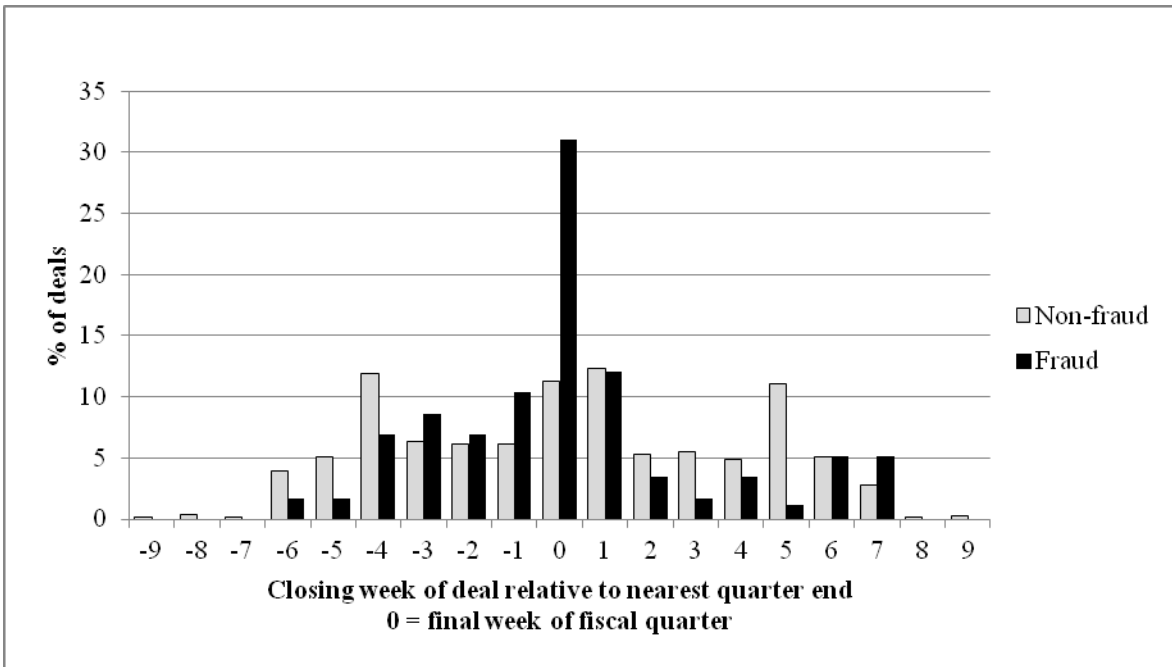


Figure 2
Median cumulative raw returns starting 12 months before alleged fraud start date for firms with and without M&A during first year alleged fraud

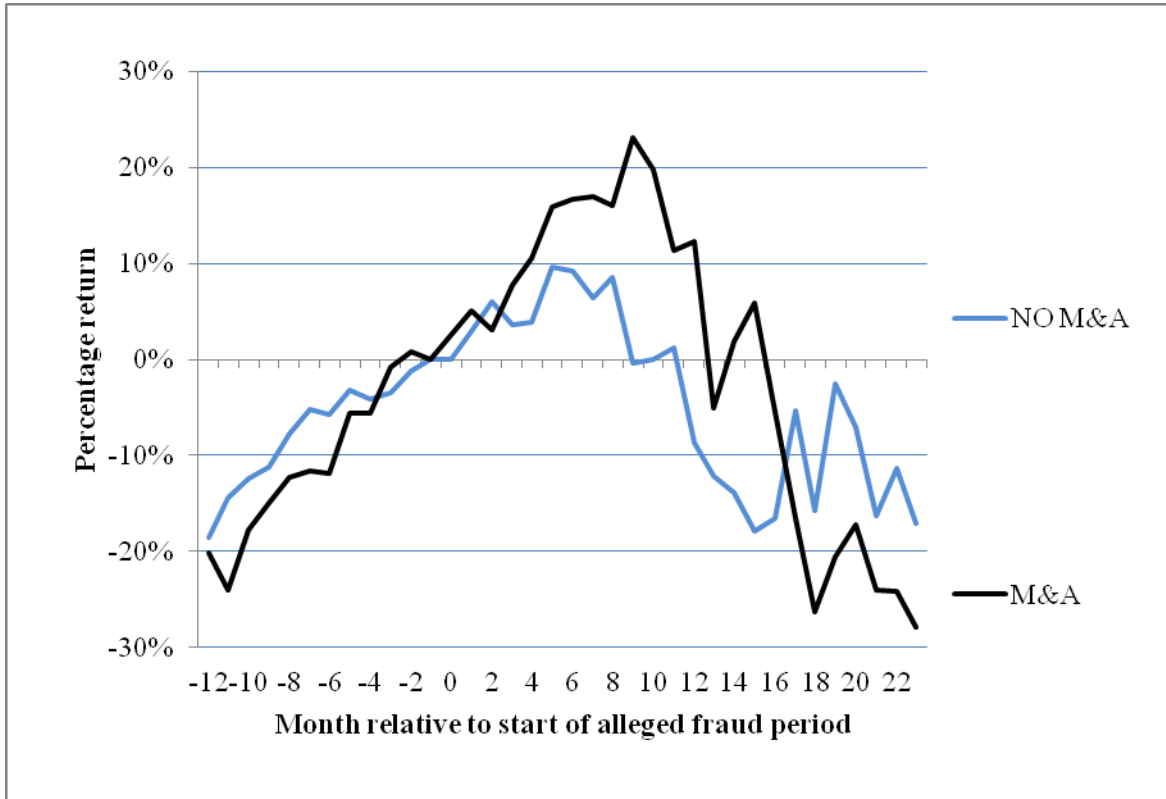


Table 1 - Descriptive statistics

This table provides descriptive statistics of fraud firms identified using the AAER sample. Pre-fraud AAER years include up to three years prior to the first year of the alleged fraud. AAER years include the fiscal years in which the alleged fraud occurred. Non-fraud firms are all firms not in the AAER sample at any point. MVE is market value of equity at the end of the year per Compustat. Market-to-book is equal to (Total assets – book equity + market equity) / Total assets. EBITDA is operating income before depreciation. Transaction value is the price paid for target equity based on SDC. Target sales and EBITDA are for the last year before the acquisition and reported by SDC. Sample statistics cover the period 1982 through 2005. Means are reported with medians in brackets. Value is the price paid for the target, or the equity value of the acquirer 3 months before deal announcement. Assets_A and Sales_A are the book value of assets and sales of the acquiring firm before the acquisition. Announcement CAR is the 3-day return relative to the value-weighted market return surrounding the announcement of the deal. Completion time is the number of days between announcement and close and is reported only for successful deals that closed on a different date than announcement. Diversifying deals are those in which the target's 2-digit SIC code differs from the acquirer. All other target and deal variables drawn from SDC. *p*-value of difference based on *t*-test for means, Wilcoxon rank-sum test for medians. Firm characteristics are reported in Panel A, deal characteristics reported in Panel B. Firm variables are measured at the end of the year.

Panel A: Acquiring firm characteristics

	AAER firms		Non-AAER firms (3)	<i>p</i> -value of difference in means [medians]	
	Fraud years (1)	Pre-fraud years (2)		(1) v. (2)	(1) v. (3)
Firm-years	330	358	59,008		
MVE (\$B)	9.35 [0.58]	8.49 [0.54]	2.74 [0.33]	0.68 [0.80]	<0.01 [<0.01]
Sales (\$B)	5.37 [0.62]	4.24 [0.46]	2.41 [0.33]	0.14 [0.27]	<0.01 [<0.01]
Market-to-book	2.01 [1.62]	2.22 [1.68]	1.69 [1.31]	0.04 [0.04]	<0.01 [<0.01]
Debt / Assets	0.28 [0.25]	0.23 [0.21]	0.25 [0.22]	<0.01 [<0.01]	0.01 [0.01]
Cash / Assets	0.13 [0.05]	0.16 [0.08]	0.14 [0.07]	0.04 [0.11]	0.38 [0.55]
CapEx / Assets	0.34 [0.06]	0.11 [0.07]	1.17 [0.04]	0.09 [0.15]	0.05 [<0.01]
EBITDA/Assets	0.07 [0.09]	0.12 [0.13]	0.09 [0.11]	<0.01 [<0.01]	0.01 [0.01]
Net income / Assets	-0.04 [0.01]	0.02 [0.04]	0.00 [0.03]	<0.01 [<0.01]	<0.01 [<0.01]
R&D / Sales	0.08 [0.00]	0.06 [0.00]	0.05 [0.00]	0.10 [0.36]	<0.01 [<0.01]
Adv / Sales	0.01 [0.00]	0.01 [0.00]	0.01 [0.00]	0.96 [0.98]	0.17 [0.60]
≥ 1 bid attempt?	0.39	0.38	0.23	0.70	<0.01
≥ 1 successful bid?	0.39	0.37	0.22	0.66	<0.01
Comp. deals / year	2.32 [1.00]	1.95 [1.00]	1.41 [1.00]	0.12 [0.73]	<0.01 [0.01]

Table 1 (cont'd) - Descriptive statistics**Panel B: Deal Characteristics**

	AAER firms			<i>p</i> -value (1) v. (2)	<i>p</i> -value (1) v. (3)
	Fraud deals	Pre-fraud deals	Non-AAER firm years		
	(1)	(2)	(3)		
# of deals	248	308	19,447		
Transaction value (\$B)	0.91 [0.07]	1.35 [0.09]	0.38 [0.06]	0.41 [0.22]	0.07 [0.01]
Target sales* (\$B)	0.82 [0.11]	0.86 [0.08]	0.52 [0.07]	0.89 [0.26]	0.24[0.05]
Target EBITDA** (\$B)	0.24 [0.01]	0.20 [0.01]	0.08 [0.01]	0.72 [0.84]	0.10 [0.29]
Value _T / Value _A	0.13 [0.02]	0.20 [0.04]	0.33 [0.09]	0.08 [<0.01]	<0.01 [<0.01]
Value _T / Assets _A	0.15 [0.04]	0.20 [0.05]	0.30 [0.06]	0.16 [0.01]	0.08 [<0.01]
Sales _T / Sales _A *	0.15 [0.05]	0.21 [0.07]	0.31 [0.11]	0.24 [0.17]	<0.01 [<0.01]
Announcement CAR (%)	0.46 [0.61]	0.80 [0.40]	0.78 [0.22]	0.65 [0.96]	0.58 [0.66]
Comp. time (in days)***	75 [58]	99 [75]	110 [81]	0.06 [0.02]	0.01 [<0.01]
<i>Target is:</i>					
Private (0,1)	0.72	0.61	0.74	0.03	0.37
Subsidiary (0,1)	0.38	0.24	0.35	<0.01	0.27
Foreign (0,1)	0.28	0.18	0.18	<0.01	<0.01
Diversifying (0,1)	0.61	0.42	0.43	<0.01	<0.01
All cash (0,1)	0.56	0.48	0.62	0.04	0.09
All stock (0,1)	0.31	0.41	0.27	0.02	0.14
Term. fee (0,1)	0.19	0.21	0.12	0.51	<0.01
Collar bid (0,1)	0.16	0.16	0.10	0.95	0.27
Successful (0,1)	0.98	0.95	0.94	0.09	0.02

*107, 165, and 8,433 observations respectively

**79, 123, and 5,331 observations respectively

***Where deal is not effective on date announced. 182, 228, and 14,446 observations respectively

Table 2 - Fraud firms and deal activity

This table provides evidence on acquisition activity of firm alleged to have engaged in fraud by the SEC. The sample includes all available firm-year observations between 1982 and 2005 for firms completing at least one deal in that period. The first column reports the results from a logistic regression of the likelihood of announcing a successful deal during the fiscal year. The second column reports the results from an OLS regression of the number of successful deals conditional on the firm announcing at least one successful deal during the year. Independent variables are measured at the beginning of the year. Market-to-book assets are equal to $(\text{Total assets} - \text{book equity} + \text{market equity}) / \text{Total assets}$. EBITDA is calculated using prior year operating income before depreciation. The fraud year indicator equals one for fraud firms during periods of alleged fraud according to an AAER. Year and industry dummies (based on Fama-French 12 industry classifications) are included. Coefficients reported with marginal effects in brackets (logistic model) and t -statistics in parenthesis.

Dependent variable =	Pr(Successful bid = 1)		# of successful bids	
	Coeff. [ME]	(t -stat)	Coeff.	(t -stat)
log(MVE)	0.226 [0.037]	(40.76)	0.140	(29.23)
Market-to-book assets	0.001 [0.000]	(0.09)	-0.003	(-0.27)
EBITDA / Assets	-0.064 [-0.010]	(-0.78)	-0.638	(-8.40)
Cash / Assets	0.364 [0.059]	(5.24)	-0.182	(-2.98)
Debt / Assets	-0.011 [-0.002]	(-0.24)	0.164	(4.87)
AAER fraud year (0,1)	0.549 [0.088]	(4.46)	0.761	(8.13)
Industry and announcement- year dummies	Yes		Yes	
Firm-year observations	61,247		13,784	
Pseudo-R ² / Adj. R ²	9.42%		8.22%	

Table 3 - Fraud firms and ownership, location, and industry of target firms

This table provides evidence on the types of targets chosen by firms accused of fraud. Sample includes all available acquisition attempts for firms completing at least one deal between 1982 and 2005. Logistic regression estimated for binary dependent variable categorizing target type. Private targets are those not publicly traded. Foreign targets are those headquartered outside the U.S. Subsidiaries are those targets owned by another corporation as coded by SDC. Diversifying deals are targets with 2-digit SIC codes different from the acquirers. All control variables are measured at the beginning of the year. The fraud deal indicator equals one for fraud firms during periods of alleged fraud. Year and industry (Fama-French 12 industries) fixed effects included. Coefficients reported with marginal effects in brackets and *t*-statistics in parenthesis.

Dependent var. =	Pr(Private = 1)		Pr(Foreign = 1)		Pr(Subsidiary = 1)		Pr(Diversifying = 1)	
	Coeff. [ME]	(<i>t</i> -stat)	Coeff. [ME]	(<i>t</i> -stat)	Coeff. [ME]	(<i>t</i> -stat)	Coeff. [ME]	(<i>t</i> -stat)
log(MVE)	-0.116 [-0.021]	(-13.99)	0.257 [0.034]	(26.25)	0.090 [0.019]	(11.86)	0.101 [0.023]	(13.77)
Market-to-book	0.097 [0.018]	(5.03)	-0.125 [-0.017]	(-5.54)	-0.188 [-0.039]	(-9.73)	-0.023 [-0.005]	(-1.37)
EBITDA / Assets	0.839 [0.154]	(5.52)	-0.420 [-0.055]	(-2.17)	0.706 [0.147]	(4.52)	-0.217 [-0.051]	(-1.64)
Cash / Assets	0.441 [0.081]	(3.63)	0.894 [0.118]	(6.47)	-0.387 [-0.081]	(-3.27)	-0.012 [-0.003]	(-0.12)
Debt / Assets	0.845 [0.155]	(9.07)	0.532 [0.070]	(5.83)	0.816 [0.170]	(10.85)	0.353 [0.082]	(4.96)
Fraud deal	-0.020 [-0.004]	(-0.14)	0.268 [0.036]	(1.77)	0.343 [0.072]	(2.50)	0.621 [0.145]	(4.60)
Number of deals	20,598		20,598		20,598		20,598	
Pseudo-R ²	6.50%		14.13%		10.38%		6.63%	

Table 4 - Fraud firms and deal characteristics

This table provides evidence on the deal characteristics for firms accused of fraud. Sample includes all available acquisition attempts for firms completing at least one deal between 1983 and 2005. Logistic regression estimated for binary dependent variable. Panel A examines payment method. All cash deals are those in which target shareholders are paid solely in cash. Panel B examines termination fees, collars, and closing speed. The existence of target termination fees is taken from SDC. For deals involving at least partial acquirer stock consideration, FEX collar is a dummy variable equal to one if SDC reports the use of fixed exchange ratio collar, zero otherwise. The number of days between announcement and completion are based on SDC data. All control variables are measured at the beginning of the year. The fraud deal indicator equals one for fraud firms during periods of alleged fraud. Announcement year and industry (Fama-French 12 industries) fixed effects included. Coefficients reported with marginal effects in brackets (logit model) and *t*-statistics in parenthesis.

Panel A: Payment method

Dependent variable =	Pr (All cash = 1) Coeff. [ME]	(<i>t</i> -stat)
log(MVE)	0.169 [0.030]	(18.81)
Relative size	-0.040 [-0.007]	(-1.64)
Market-to-book assets	-0.357 [-0.064]	(-18.59)
EBITDA / Assets	2.207 [0.395]	(13.88)
Cash / Assets	-0.196 [-0.035]	(-1.69)
Debt / Assets	0.985 [0.176]	(11.92)
Private	1.334 [0.239]	(34.66)
Foreign	0.887 [0.159]	(17.44)
Fraud year (0,1)	-0.084 [-0.015]	(-0.57)
Industry and announcement year dummies	Yes	
N	20,598	
Pseudo- <i>R</i> ²	31.56%	

Table 4 (cont'd)

Dependent variable =	Pr (Termination fees = 1)		Pr(FEX collar = 1 stock)		# of days between announcement and completion	
	Coeff. [ME]	(<i>t</i> -stat)	Coeff.	(<i>t</i> -stat)	Coeff.	(<i>t</i> -stat)
log(MVE)	0.049 [0.003]	(3.22)	-0.143 [-0.004]	(-1.80)	1.287	(2.64)
Relative size	0.162 [0.010]	(4.15)	-0.649 [-0.017]	(-1.76)	12.074	(8.73)
Market-to-book assets	0.060 [0.004]	(1.80)	-0.001 [-0.000]	(-0.00)	-2.063	(-1.92)
EBITDA / Assets	0.107 [0.007]	(0.40)	1.604 [0.041]	(1.21)	-53.216	(-6.36)
Cash / Assets	-0.076 [-0.005]	(-0.36)	0.652 [0.017]	(0.70)	-23.144	(-3.47)
Debt / Assets	-0.167 [-0.010]	(-1.09)	-0.955 [-0.024]	(-0.97)	-7.277	(-1.99)
Private	-3.900 [-0.236]	(-54.38)			-42.651	(-20.42)
Foreign	-2.462 [-0.149]	(-20.97)	-1.117 [-0.029]	(-1.51)	-3.516	(-1.31)
Fraud deal	0.429 [0.026]	(1.77)	1.599 [0.041]	(2.26)	-24.020	(-2.78)
N	20,598		1,688		15,320	
Pseudo-R ² / Adj. R ²	53.02%		13.05%		10.19%	

Table 5 – Accelerating the deal close date

In this table we provide evidence on the frequency of deal closing just before the fiscal year end for fraud and non-fraud firms. In panel A we report the frequency of deals closing during the last week of the acquirer's fiscal quarter for fraud and non-fraud firms by relative deal size. In panel B, we estimate logistic regressions where the dependent variable is a binary variable equal to 1 for deals that close in the last week of the quarter and zero otherwise. The independent variables include indicator variable for deals by firms engaged in fraud, relative size is the percentage ranking of target equity value to acquirer equity value. Announcement year fixed effects are included. Coefficients reported with t-statistics in parentheses and marginal effects in brackets.

Panel A: Frequency of deals closed during last week of quarter

	All	Small deals ($V_T/V_A < 0.10$)	Large deals ($V_T/V_A \geq 0.10$)	p-value of difference (small vs. large)
Deals by fraud firms	16.6%	12.0%	31.0%	<0.01
Deals by non-fraud firms	11.3%	11.3%	11.3%	0.93
p-value of difference (fraud vs. non-fraud)	0.01	0.75	<0.01	

Panel B: Logistic regression of the probability of closing deal during last week of quarter

	Prob(closing deal during the last week of the quarter)			
	Coeff. [ME]	(t-stat)	Coeff. [ME]	(t-stat)
Fraud deal	0.480 [0.048]	(2.72)	0.112 [0.011]	(0.49)
Large deal			-0.016 [-0.001]	(-0.31)
Fraud deal \times Large deal			1.144 [0.113]	(3.11)
ln(MVE)	0.013 [0.001]	(1.27)	0.014 [0.001]	(1.16)
N	18,491		18,491	
Pseudo – R ²	1.68%		1.77%	

Table 6 – Fraud and acquirer announcement returns

This table provides evidence on the 3-day cumulative abnormal returns surrounding the announcement of a deal by AAER and non-AAER firms. The benchmark return is the value-weighted market return. Large deal is an indicator variable equal to 1 if the price paid for the target exceeds 10% of the acquirer's market value before the deal announcement. All other variables previously defined. Coefficients reported with *t*-statistics in parenthesis.

	Dependent variable = CAR(-1,1)			
	Coeff.	<i>t</i> -stat	Coeff.	<i>t</i> -stat
Log(MVE)	-0.41	(-12.85)	-0.41	(-12.89)
Market-to-book	0.13	(2.86)	0.13	(2.84)
Large deal	0.08	(0.58)	0.97	(0.74)
Stock deal	-0.75	(-5.22)	-0.74	(-5.18)
Hostile deal	0.47	(1.20)	0.47	(1.21)
Competition	2.53	(7.07)	2.53	(7.07)
Private target	2.29	(14.65)	2.29	(14.65)
Foreign target	-0.41	(-2.66)	-0.41	(-2.67)
Subsidiary target	0.07	(0.47)	0.06	(0.44)
Different industry	0.49	(4.20)	0.49	(4.18)
Successful deal	1.02	(3.76)	1.02	(3.76)
Fraud deal	0.35	(0.67)	1.15	(1.92)
Fraud deal × Large deal			-3.19	(-2.67)
N	20,598		20,598	
Adjusted R ²	4.76%		4.79%	

Table 7 – Characteristics and returns to firms that make deals during fraud

This table provides evidence on characteristics of firms that make acquisitions during the fraud period. * denotes significantly different from firms with M&A at the 0.10 level using a t-test for means and a Wilcoxon rank-sum test for medians

Panel A: Firms that make deals and firms that do not make deals during 1st year of fraud

	Firms w/ M&A		Firms w/o M&A	
	Mean	Median	Mean	Median
MVE before alleged fraud	14.01	0.53	6.34	0.54
Market-to-book equity	3.03	2.84	2.59*	2.12*
EBITDA / Assets	0.10	0.12	0.09	0.12
Cash / Assets	0.16	0.10	0.15	0.07
Debt / Assets	0.21	0.21	0.25	0.21

Panel B: Acquisitions and the reversal of pre-fraud returns

	Dependent variable = Raw return over the period starting in month 0 and ending T months later, where $T =$				
	3 mo.	6 mo.	12 mo.	24 mo.	48 mo.
Prior returns ($-T,-1$)	0.53 (2.41)	-0.40 (-1.62)	0.66 (1.45)	0.51 (1.95)	0.39 (1.71)
M&A in year 1 of fraud (0,1)	7.91 (1.00)	-8.40 (-0.86)	-21.36 (-0.73)	-32.92 (-1.55)	20.93 (0.58)
Prior returns \times M&A in year 1	-0.10 (-0.43)	0.48 (2.78)	0.55 (1.77)	0.25 (2.25)	0.11 (1.10)
ln(MVE)	-4.73 (-2.75)	-7.90 (-3.79)	-11.19 (-1.86)	-3.16 (-0.71)	2.50 (0.33)
Prior returns \times ln(MVE)	-16.84 (-4.19)	5.28 (1.43)	-6.85 (-1.06)	-3.95 (-1.22)	-5.56 (-1.93)
MTB	-2.22 (-0.78)	2.99 (0.88)	-0.63 (-0.06)	8.22 (1.09)	8.03 (0.66)
Prior returns \times MTB	21.98 (3.01)	-0.82 (-0.18)	-8.77 (-0.90)	-8.82 (-1.86)	-1.68 (-0.38)
Adjusted R ²	24.1%	11.2%	5.7%	4.5%	-0.3%