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Costs and benefits of internal control audits: evidence from M&A transactions

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Abstract

To inform the debate on the merits of internal control audits, we examine managers' decisions to temporarily exempt newly acquired businesses from Section 404 of the Sarbanes-Oxley Act. We document that managers are more likely to elect the exemption when expected compliance costs are higher, such as when acquisitions are larger and occur later in the year. We find only modest evidence that managers use the exemption to avoid scrutiny of value-destroying deals. Exemption use, however, is associated with negative post-acquisition outcomes, including lower return-on-assets and higher likelihoods of goodwill impairments and financial statement restatements. These results comport with compliance providing benefits by facilitating timely identification and correction of control problems in the newly acquired business. Finally, we document negative abnormal stock returns at the time exemption use is announced and over the subsequent 3 years, suggesting that investors view exemption use negatively and that their initial price reactions are incomplete.

Keywords Internal control over financial reporting · Merger and acquisition integration

JEL classification G30 · G34 · K22 · M4

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1 Introduction

We provide evidence on costs and benefits of internal control audits by examining an election that allows U.S. public companies to exempt newly acquired businesses from Section 404 of the Sarbanes-Oxley Act of 2002 (SOX). Section 404 of SOX requires formal documentation and testing of internal controls over financial reporting (hereafter internal controls) as well as public reporting on the effectiveness of those controls by both management and the financial statement auditor.[1] These requirements are controversial, with both investors and managers viewing them as costly (e.g., Zhang 2007; Alexander et al. 2013), and early research provides evidence of both significantly higher audit fees (e.g., Iliev 2010; Kinney and Shepardson 2011) and managers taking actions to avoid compliance (e.g., Gao et al. 2009). In response to concerns about compliance costs, the Securities and Exchange Commission (SEC) has provided several delays and exemptions to all or part of this rule (e.g., small firms and newly public firms).[2]

Research, however, also provides evidence that maintaining effective internal controls can provide both financial reporting and operational benefits (e.g., Doyle et al. 2007a; Ashbaugh-Skaife et al. 2008; Cheng et al. 2013; Feng et al. 2015; Cheng et al. 2018) and that compliance with Section 404(b)—the auditor assessment—can facilitate the timely identification and correction of control problems (e.g., Bedard and Graham 2011; Ge et al. 2017). Therefore compliance likely entails both costs and benefits. Providing evidence on these costs and benefits has been difficult for researchers because the audit requirement of Section 404 currently applies only to accelerated filers (firms with public float greater than $75 million). Accelerated filers tend to have very different control environments than smaller and newly public firms (e.g., Ge et al. 2017), and the lack of variation in compliance among accelerated filers impedes investigation of the effects of compliance for this population of interest. Our setting enables such an investigation.[3]

In 2004, the SEC provided guidance allowing managers to exempt newly acquired businesses from the scope of management's and auditor's assessment of internal controls during the fiscal year of the acquisition.[4] This setting provides some unique advantages,

[1] Section 404 has two components. Section 404(a) requires that management document and test internal controls, reaching a summary assessment of "effective" or "ineffective" in the annual report; Section 404(b) requires that auditors also assess and opine on the effectiveness of internal controls in the annual report. Section 302 requires quarterly public reporting on the effectiveness of and changes in disclosure controls but is more limited in scope and does not prescribe formal documentation and testing.

[2] The SEC delayed the effective date of Section 404 for small firms (non-accelerated filers with a public float of less than $75 million), and these firms were ultimately permanently exempted from Section 404(b). Newly public firms that qualify as "emerging growth companies" are allowed a number of disclosure exemptions including exemption from Section 404(b).

[3] The audit requirement of Section 404 is not mandated for non-accelerated filers or emerging growth companies, which potentially creates an opportunity to study compliance in those settings. As we describe in Section 2, however, these firms rarely voluntarily comply, and they face unique circumstances related to internal controls that are unlikely to generalize to the general population of accelerated filers.

[4] See question 3 from the frequently asked questions answered by the SEC: "… we acknowledge that it might not always be possible to conduct an assessment of an acquired business's internal control over financial reporting in the period between the consummation date and the date of management's assessment. In such instances, we would not object to management referring in the report to a discussion in the registrant's Form 10-K or 10-KSB regarding the scope of the assessment and to such disclosure noting that management excluded the acquired business from management's report on internal control over financial reporting. If such a reference is made, however, management must identify the acquired business excluded and indicate the significance of the acquired business to the registrant's consolidated financial statements." (Available here: http://www.sec.gov/info/accountants/controlfaq1004.htm.)

because it allows for an examination of Section 404 compliance among accelerated filers, and a wide array of accelerated filers undertake acquisitions (55% of accelerated filers in Compustat made acquisitions during our sample period, and 21% had acquisitions that exceeded 20% of the acquirer's market value), making our sample of acquirers reasonably representative of the broader population.[5] We use this setting to examine acquirers' decisions to comply with or elect exemption from Section 404, the operational and financial reporting consequences associated with this decision, and how these consequences are reflected in stock prices. Although the exemption is temporary (a one-year deferral), the early identification of control problems is important when integrating a newly acquired business (Bruner 2004; Wangerin 2017). A likely benefit of Section 404 compliance is the identification of such problems. This benefit, however, is potentially offset by the incremental audit cost and allocation of employee time during this already busy period. Thus this exemption presents a unique setting to provide evidence on costs and benefits of Section 404 compliance by examining why accelerated filers elect the exemption and the potential consequences of that choice.

We examine acquirers' use of the exemption election in acquisitions from 2005 to 2014, where ending in 2014 allows us to observe post-acquisition realizations. Our initial tests reveal that exemption use increases sharply with the size of the transaction. As such, we focus most of our analyses on a sample of 1070 acquisitions with deal values that represent at least 20% of the acquirer's market value. Focusing on larger acquisitions also facilitates meaningful tests of consequences, as internal control problems in relatively small acquired businesses are less likely to have significant consequences for the consolidated entity.

In our sample of large acquisitions, we find that 61% of acquirers elect the exemption from Section 404 for their newly acquired businesses, while 39% opt to comply. In our regression analysis, we find that exemption use is more likely for acquisitions that occur later in the fiscal year and for foreign targets, which is consistent with the SEC allowing the exemption because of difficulties that can arise in completing a timely assessment and audit of internal controls in the year of an acquisition. Exemption use is 13 (20) % more (less) likely for fourth (first) quarter deals, relative to the two middle quarters. Exemption use is 15% more likely for foreign targets and 7% less likely for U.S. public targets, relative to U.S. private targets, which is consistent with different anticipated compliance costs across different types of targets.

We also investigate time trends. We observe a reduction in exemption use over the early years of the sample, which is consistent with declining costs during the initial years of SOX, as firms and auditors became more adept at implementing Section 404 and the PCAOB issued the less-prescriptive auditing standard AS5 (PCAOB 2007). This reduction, however, reverses beginning in 2010, which coincides with when the PCAOB began emphasizing internal control audits in its inspections of audit firms (PCAOB 2013). We find that PCAOB scrutiny, measured as the number of internal control audits by Big Four audit firms reported as deficient during the annual inspection

[5] Although our sample is reasonably representative of other accelerated filers, we acknowledge that some differences exist between acquirers and non-acquirers. Firms with large acquisitions in our sample tend to be slightly larger and more profitable (untabulated). Although research suggests M&As create internal control problems (Ashbaugh-Skaife et al. 2007; Doyle et al. 2007b), in our sample, acquirers have the same rate of material weaknesses as non-acquirer accelerated filers (7%; not tabulated).

process, is positively associated with exemption use. To the extent PCAOB scrutiny increases compliance costs, the increase in exemption use may represent an unintended consequence of their recent emphasis on internal control audits.[6]

We also consider the possibility that agency considerations lead managers to elect the exemption to avoid additional scrutiny of these transactions.[7] We find some evidence that acquirers are more likely to use the exemption when agency conflicts are more severe. In particular, exemption use is positively associated with a composite measure of several indicators of agency conflicts, including acquirers with high free cash flows, low acquisition announcement returns, entrenched managers, a high probability of target internal control problems, and low synergies (e.g., Jensen 1986; Lang et al. 1991; Harford 1999; Harford et al. 2012). In terms of economic significance, however, the explanatory power of our model increases only marginally upon including our proxy for agency conflicts, suggesting this is not a pervasive motivation for electing the exemption.[8]

We next examine potential consequences of the exemption election for the consolidated entity. In particular, we expect that compliance with Section 404 for the newly acquired businesses will facilitate the integration of the new entity and may improve the quality of internal management reports used for decision-making. It is unclear, however, whether these benefits will offset the incremental audit fees and employee time devoted to compliance. To investigate this, we consider future goodwill impairments, return-on-assets, and financial statement restatements.

We find that exemption firms are 10% more likely to have future goodwill impairments, which is consistent with integration issues limiting anticipated benefits such as synergies. We find that future return-on-assets decreases by 1% for exemption firms, relative to firms opting for compliance, consistent with both lower realization of synergies and also managers relying on lower-quality internal management reports and thus experiencing reduced operational efficiencies (Feng et al. 2015; Cheng et al. 2018).[9] Finally, we provide evidence that exemption firms are 6% more likely to experience future restatements, consistent with these firms having lower-quality external financial reports. Overall, this body of evidence suggests real costs to exemption.

[6] Research suggests that audit firms respond to PCAOB-identified deficiencies by undertaking costly remediation efforts and that the additional costs are, in part, passed on to clients as higher audit fees (Acito et al. 2018; DeFond and Lennox 2017). Survey evidence also indicates that the PCOAB's inspection emphasis on internal controls has spurred auditors to require more documentation and testing of controls, which in turn has increased compliance costs for clients by increasing both audit fees and time dedicated to internal compliance (e.g., FERF 2015; Protiviti 2015). These general trends are likely to be magnified with newly acquired businesses, potentially affecting acquirers' exemption decisions. For example, survey respondents indicate that the inspections have increased costs by leading auditors to intensify their focus on testing system reports and review of controls, selecting controls to test, evaluating identified deficiencies, and addressing IT considerations. These are all important considerations when integrating a newly acquired business and evaluating its controls for the first time.

[7] For example, Hochberg et al. (2009) provide evidence that insiders lobbied against SOX to protect their private benefits (i.e., for agency-related reasons), and a long line of research recognizes that agency frictions can lead to value-destroying acquisitions (Jensen 1986; Morck et al. 1990; Lang et al. 1991; Grinstein and Hribar 2004; Harford and Li 2007; Malmendier and Tate 2008; Harford et al. 2012; Harford and Schonlau 2013).

[8] For example, the area under the ROC curve for our main determinants model increases 0.25% when including our agency conflicts variable, while it increases 5.19% when including our two indicator variables for whether the acquisition is completed in the fourth or first quarter (not tabulated).

[9] Our return-on-assets measure is based on operating income before depreciation and thus is not confounded by goodwill impairments.

We cannot rule out the possibility that these associations reflect issues identified during the integration process that lead to both the exemption decision and the subsequent negative outcomes. If this were the case, however, it is likely the issues would be identified during due diligence (Skaife and Wangerin 2013; Wangerin 2017) and the deals would be terminated or managers and auditors would conduct additional substantive testing (Hogan and Wilkins 2008). In addition, if material weaknesses are uncovered during the integration process, management must disclose those material weaknesses, regardless of the exemption election (PricewaterhouseCoopers 2014).

Taken as a whole, we interpret these results as consistent with the process of internal control assessment allowing managers to more quickly identify issues and more effectively integrate newly acquired businesses, providing evidence of benefits to internal control assessments that extend beyond financial reporting. Regardless of the underlying driver, our results suggest that the exemption election provides information about firms' future performance.

We conclude our study with an examination of investors' pricing of the exemption election. We first document a negative price reaction of approximately 1% to the announcement of the exemption election, suggesting investors view the election as bad news for the firm, consistent with our post-acquisition outcome tests and the results of Carnes et al. (2018), which we discuss below. We then explore whether this initial reaction is complete by examining future abnormal returns following the 10-K filing. We provide evidence that the stocks of exemption firms continue to underperform in the three years following the 10-K filing, with abnormal returns that are 12% lower than acquirers that comply with Section 404. Together, these results suggest that, although investors understand the exemption election has negative implications, on average, their assessment is incomplete, and the actual outcomes are worse than they initially anticipate.

In summary, we provide evidence on the determinants and consequences of electing to exempt newly acquired businesses from Section 404 as well as investor pricing of this election. We find that the majority of firms undertaking large acquisitions elect the exemption, and this appears largely motivated by expected compliance costs. Although we find some evidence that agency conflicts also play a role, the impact appears modest. We also document that exemption use is associated with negative post-acquisition outcomes, suggesting that compliance with Section 404 can lead to both operational and financial reporting benefits. Despite controlling for numerous deal characteristics, we cannot rule out the possibility that exemption use is associated with lower quality underlying deals, in which case the full internal control audit would not necessarily improve the outcomes. Our returns analysis, however, indicates that investors react negatively at the time the exemption is announced, which typically occurs long after the deal itself has been known to investors. Moreover, our results also suggest that investors' initial pricing of the election decision is incomplete, and thus our findings should be informative to both market participants and regulators. Overall, our analyses add to the body of evidence on the costs and benefits of internal control audits, and the results from both the profitability and stock return tests indicate the existence of net benefits after compliance costs.

Our findings complement those of concurrent work by Carnes et al. (2018), who use this same setting to examine whether investors demand internal control audits. In particular, Carnes et al. (2018) examine acquisitions with relative deal sizes of at least

1% from 2005 to 2013 and provide evidence of a negative price reaction at the time of the 10-K filing disclosing the exemption election. Although our focus is on the underlying reasons for this election and the operational consequences of taking the election, we also find evidence that investors view the exemption negatively.[10] Overall, the two studies provide corroborative and complementary evidence of benefits to Section 404 compliance and demonstrate that the exemption decision can provide a useful signal to investors about the prospects of the newly consolidated entity.

2 Background and hypothesis development

More than a decade after its passage, Section 404 continues to be controversial and the subject of much research.[11] Several studies use the disclosures required under Section 404 to document benefits of maintaining effective internal controls, such as higher quality financial reporting (Doyle et al. 2007a; Ashbaugh-Skaife et al. 2008) and more efficient operational and investment decisions (Cheng et al. 2013; Feng et al. 2015; Cheng et al. 2018). Research also reports that the audit requirement of Section 404 increases the likelihood of existing control deficiencies being identified and remediated (Bedard and Graham 2011; Schroeder and Shepardson 2016; Ge et al. 2017). Taken together, these results suggest that compliance with Section 404 can provide benefits by facilitating the timely identification and correction of control problems.

Despite those benefits, research also documents that Section 404 compliance can be costly. Early studies report that investors reacted negatively around key legislative dates that led to the passage of SOX (e.g., Zhang 2007), with some firms deregistering or managing their public float to avoid compliance (Engel et al. 2007; Leuz et al. 2008; Gao et al. 2009), and audit fees roughly doubling in firms' initial years of compliance (Iliev 2010; Kinney and Shepardson 2011). Survey evidence also suggests that managers generally do not perceive that Section 404 compliance leads to economically significant benefits (Alexander et al. 2013). Overall, these results suggest that, in many cases, the costs of Section 404 compliance can outweigh the benefits.

Consistent with Section 404 compliance being costly, very few small or newly public firms that qualify for exemption opt to voluntarily comply (GAO 2013; Barth et al. 2017). Small and newly public firms, however, face unique circumstances related to internal controls. For example, most small firms face staffing issues, whereas larger firms face more complex accounting issues (e.g., Ge et al. 2017). It may not be cost-beneficial for small firms to maintain the necessary staffing to facilitate sharp segregation of duties. Moreover, firms expecting to grow sufficiently to cross the threshold of

[10] Carnes et al. (2018) examine future restatements as evidence that investors' perceptions are justified, similarly finding that exemption use is associated with a higher likelihood of restatements. Our study provides a more comprehensive analysis of the consequences of exemption election by also examining goodwill impairments and changes in profitability.

[11] Additional exemptions from SOX 404 continue to be debated (e.g., Rapoport 2017). On June 8, 2017, the House of Representatives passed the Financial CHOICE Act of 2017, which would eliminate 404(b) for firms with public float of less than $500 million (from $75 million) and defer 404(b) for up to 10 years for companies with revenue of less than $50 million (https://www.congress.gov/bill/115th-congress/house-bill/10). Our discussion in this section focuses on the prior papers most relevant for our study; the interested reader can find a more thorough review of the overall SOX literature by Coates and Srinivasan (2014).

accelerated filer status will be more likely to voluntarily comply, creating an endogeneity concern if one wanted to study voluntary compliance among non-accelerated filers (Ge et al. 2017). Thus small and newly public firms, although useful to consider, are unlikely to represent the accelerated filers for which the full Section 404 rule is mandatory.

In this study, we examine a setting that is fairly common (as noted earlier, more than half of accelerated filers have acquisitions) and, as we describe more thoroughly below, where the early identification of control problems is likely to be particularly beneficial. SEC guidance specifically allows newly acquired businesses to be exempt from Section 404. The SEC states:

> … we acknowledge that it might not always be possible to conduct an assessment of an acquired business's internal control over financial reporting in the period between the consummation date and the date of management's assessment. In such instances, we would not object to management referring in the report to a discussion in the registrant's Form 10-K or 10-KSB regarding the scope of the assessment and to such disclosure noting that management excluded the acquired business from management's report on internal control over financial reporting. If such a reference is made, however, management must identify the acquired business excluded and indicate the significance of the acquired business to the registrant's consolidated financial statements.

We examine acquirers' exemption decisions and the consequences of this exemption. Acquisitions are time-consuming and require a great deal of effort and coordination to merge the operations and information systems of the firms to realize synergies. We expect that firms will be more likely to elect the exemption when the anticipated costs, net of anticipated benefits, of complying with the assessment and audit requirements of Section 404 are higher. In these instances, management may determine that it is not practicable to conduct an accurate assessment or might decide to instead direct their effort toward assimilating the newly acquired business.

> *H1a: Acquirers are more likely to elect exemption when anticipated net compliance costs are higher.*

We consider a number of factors that influence anticipated net compliance costs. We expect that for deals completed earlier (later) in the year, internal controls will be less (more) costly to assess and audit, whereas we do not have a clear prediction for whether the benefits of compliance will vary with the timing of the deal. We expect the size of the target to be associated with both higher compliance costs and larger potential benefits. Larger targets will be more expensive to audit, but because control problems at larger targets would also be more material to the combined entity, there are greater benefits of identifying them early. We also consider additional features of the target, including whether it is a U.S. public target, and if so, whether it shares an auditor with the acquirer and whether it has already complied with Section 404. We expect the costs of compliance to be higher for private and foreign targets, but the benefits of compliance may also be higher for these targets, because they have not been subject to the same SOX-based requirements as U.S. public targets. Thus we do not have a clear

prediction. Finally, we consider deal features, such as whether it is a diversifying deal, where we expect that operations in different industries are likely to entail different business processes and unique sets of internal controls, leading to higher assessment and audit costs.

Another possibility is that acquirers elect the exemption when agency conflicts create incentives for managers to minimize the outside scrutiny of value-destroying acquisitions or to avoid public disclosure of weaknesses when the newly acquired business is likely to have ineffective internal controls. Consistent with this perspective, Hochberg et al. (2009) provide evidence that insiders lobbied against Sarbanes-Oxley to protect their private benefits.

H1b: Acquirers are more likely to elect exemption when agency-related incentives to avoid scrutiny are stronger.

We consider five measures of management's agency-related incentives to avoid scrutiny. First, we consider the acquirer's free cash flow in the year prior to the acquisition, as Harford (1999) documents that managers in cash rich firms are more likely to make value-decreasing acquisitions. Second, we consider the acquirer's stock return around the deal announcement as a proxy for the market's assessment of the acquisition. Third, we consider management entrenchment, because entrenched managers are more likely to make value-decreasing acquisitions (Harford et al. 2012). Fourth, we consider low synergy deals, based on the value-weighted combined announcement returns for the target and acquirer (Harford et al. 2012; Chen et al. 2018). Finally, we consider the probability of the target having ineffective internal controls, based on the prediction model from Ge et al. (2017). Managers may avoid scrutiny when control weaknesses are more likely to exist, to avoid immediate public reporting of the weaknesses.

Our second hypothesis relates to the consequences of exemption. The fact that a large proportion of acquirers do not avail themselves of the exemption suggests they perceive benefits to immediate compliance with Section 404. Information produced by the target firm is essential to planning the integration of the target by the acquirer (Bruner 2004), and thus we expect target internal control effectiveness to matter for the success of the integration process. Consistent with this argument, Skaife and Wangerin (2013) find that deals are more likely to be terminated following transactional due diligence when the likelihood of internal control problems is higher. Deloitte (2004, pg. 4) states: "every facet of the integration effort—employee training, system integration, data migration, process redesign—presents potential internal control risks, all of which occur in the same short period of time." Thus the audit of internal controls immediately following deal completion might reveal where targets' internally generated information cannot be relied upon, allowing the acquirer to modify the integration plan to improve operational efficiency. To the extent that avoiding the internal control audit decreases the likelihood of weaknesses being identified and addressed in a timely manner, we expect firms that elect the exemption to experience additional challenges in their integration process, stemming from lower quality information. This leads to our second hypothesis.

H2: Acquirers that elect exemption experience more negative post-acquisition outcomes.

We examine goodwill impairments, future profitability, and financial statement restatements as post-acquisition outcomes that may vary with the exemption election. For example, absent the internal control audit process, managers may not discover internal control problems as quickly, allowing outdated systems or processes to stay in place during the integration process and reducing the possible synergies and profits. These faulty systems and processes could also allow errors in the internal management reports. Thus we expect exemption to correlate with goodwill impairments, lower future earnings, and restatements. If compliance leads to more timely identification of internal control problems, managers might more carefully scrutinize internal reports from the newly acquired business and thus make more informed decisions (e.g., Feng et al. 2009; Feng et al. 2015; Cheng et al. 2018) and lower the risks of financial restatements (e.g., Doyle et al. 2007a; Ashbaugh-Skaife et al. 2008).

It is also possible, however, that any effect of exemption is immaterial to the consolidated entity, given that the exemption applies only to the newly acquired component of the firm and defers compliance with Section 404 for only 1 year, in which case we will find no association with the exemption. Even if we do find an association between exemption and negative future outcomes, we cannot rule out the possibility that we have not fully captured "bad deals" with our control variables, and that the firms that elect exemption are also more likely to make low quality acquisitions.

Regardless of the reason for the association, if we find evidence that the exemption election predicts negative post-acquisition outcomes, it is important to examine how this information is reflected in stock prices, leading to our third and final hypothesis.

H3: Acquirers that elect exemption experience lower stock returns.

We examine abnormal stock returns over multiple windows. First, we consider returns around the initial announcement of the exemption election, which is most commonly in the 10-K filing but sometimes in a prior 10-Q filing. A negative reaction to the announcement of the exemption election suggests investors view this as bad news. Second, to examine whether the reactions to the initial announcements are complete, we examine returns over various measurement windows ranging from 6 months to 3 years following the 10-K filing containing the exemption election.

3 Data and sample description

We identify acquisitions using the Securities Data Corporation (SDC) M&A database and focus on those where a majority of the target firm is acquired, which SDC classifies as acquisitions of assets (AA), acquisitions of majority interest (AM), and mergers (M). We use the Audit Analytics Internal Control database to identify whether an acquirer exempted any acquired businesses from internal control reporting during the

acquisition completion year. We require acquirers to have a Section 404(b) internal control audit opinion. We obtain stock return data from the CRSP stock files and accounting data from Compustat.

We detail our sample selection in Panel A of Table 1. The sample begins in 2005, which is the first full year where acquirers could elect the exemption (the SEC's FAQ document allowing exemptions was released on June 22, 2004). The sample ends in 2014 to facilitate tests that require post-acquisition data. We use the most recent available data at time of our analysis, including CRSP and Compustat data through the end of 2017 and Audit Analytics restatement data through April 2018.

We initially identify 17,643 acquisitions where we can match the acquirer in SDC to internal control data from Audit Analytics. The SEC intends the exemption for material transactions, so we eliminate 8835 acquisitions from firm-years where the largest deal has a transaction value of less than $1 million or less than 1% of the acquirer's market value 50 days before the acquisition announcement. We next eliminate 2199 acquisitions by financial firms (SIC codes 6000 through 6999), because they have a different regulatory structure than other firms. We also exclude 570 American Depositary Receipts (ADRs) because they had delayed implementation of Section 404(b) and also may have fundamentally different reasons for electing the exemption.[12] For acquirers that complete more than one acquisition in a fiscal year, we retain the acquisition with the largest transaction value, which eliminates an additional 1311 acquisitions.[13] We exclude 46 joint ventures because it is unclear whether they were joint ventures of the acquirer, where we would expect lower compliance costs, or other unrelated firms. Finally, we eliminate 537 acquisitions where data is not available to construct variables used in our analyses.

The process described above results in a total of 4145 acquisitions. We separate that total into small acquisitions (relative transaction size less than 20%; 3075 acquisitions) and large acquisitions (relative transaction size greater than or equal to 20%; 1070 acquisitions). We focus most of our analysis on the group of larger acquisitions, because of the SEC's intention to exempt material transactions and because we expect larger transactions to have greater potential consequences for the combined entity.

In Table 1, Panel B, we present exemption rates by deal size quartile, separately for the smaller and larger deals. Exemption rates are notably higher for the larger deals than for the smaller ones, with overall exemption rates of 60.7 and 36.3%, respectively. We see little variation in exemption rates across the size quartiles for the larger deals but a clear trend among the smaller deals. For example, in the lowest deal size quartile, only 18.2% of firms elect exemption, and this increases to 31.1% in the next quartile. Thus acquirers are much less likely to use the exemption for smaller transactions. In the

[12] This restriction is based on nonmissing values for Compustat's ADR Ratio variable (ADRR). If we instead eliminate firms based on Compustat's incorporation code (FIC not equal to "USA"), our inferences are unchanged, with the exception that our announcement return results become slightly stronger (not tabulated).

[13] Audit Analytics does not provide an identifier of the acquired business being exempted from the internal control audit. We assume the acquisition being referred to in the acquirer's internal control exemption disclosure relates to (at least) the largest acquisition. Based on a small hand-collected sample, we confirm this assumption holds 85% of the time (not tabulated).

Table 1 Sample selection and exemption statistics

Panel A: Sample selection	
Acquisitions completed from 2005 to 2014 with a 404(b) report on Audit Analytics	17,643
Eliminate acquisitions with transaction value < $1 million or relative size <1%	(8835)
Eliminate acquisitions by acquirers that are financial firms	(2199)
Eliminate acquisitions by ADR firms	(570)
Eliminate acquisitions due to requirement for acquirers completing more than one acquisition in the same fiscal year to keep only the largest acquisition based on transaction value	(1311)
Eliminate joint ventures	(46)
Eliminate acquisitions where data is not available to construct main regression variables	(537)
Total acquisitions	4145
Small acquisitions (relative size <20%; used in Panel B)	(3075)
Final sample of large acquisitions (relative size ≥20%)	1070

Panel B: Exemption frequency by acquisition size

Relative size quartile	Median relative size	Number of acquisitions	Proportion electing exemption
Small acquisitions (relative size <20%)			
1	1.7%	769	18.2%
2	3.7%	769	31.1%
3	7.2%	769	43.4%
4	13.4%	768	52.3%
Total	6.7%	3075	36.3%
Large acquisitions (relative size ≥20%)			
1	23.0%	268	59.0%
2	31.6%	267	58.4%
3	49.1%	268	67.9%
4	105.8%	267	57.7%
Total	38.9%	1070	60.7%

Relative size is measured as the ratio of the transaction value to the acquirer's market value of common equity 50 days prior to the acquisition announcement

remainder of our analyses, we focus on the group of large acquisitions (i.e., relative size of at least 20%).

We present descriptive statistics for our main sample of large acquisitions in Table 2, with the full sample in Panel A, and subsamples partitioned by exemption status in Panel B; variable definitions are provided in the appendix. Deal completion occurs in the first (fourth) quarter for 23.6 (28.9) percent of our sample (*QTR1_DEAL* and *QTR4_DEAL*, respectively). The relative size of the target (*RELATIVE_SIZE*), measured as the transaction value, relative to the pre-M&A market value of the acquirer, has a mean (median) of 60.6 (38.9) percent. Of the target firms, 41.0% were publicly traded in the

United States prior to the acquisition (either as stand-alone public firms or as consolidated subsidiaries of a public parent) (*US_PUBLIC_TARGET*).[14] Of the U.S. public targets we can match to Compustat data, 92.8% received a Section 404(b) audit report prior to the deal (*TARGET_404b*), and 6.7% reported material weaknesses in internal controls prior to the deal (*TARGET_ICMW*). Among U.S. public targets, 26.7% are audited by the same audit firm as the acquirer (*SHARED_AUDITOR*), and 90.4% are audited by a Big Four audit firm (*TARGET_BIG4*). Finally, 17.5% of targets are foreign firms (*FOREIGN_TARGET*).

Some of our agency conflict measures are unavailable for sizable portions of the sample. Low synergy (*SYNERGIES*) and the probability of ineffective internal control (*TARGET_PROB_ICMW*) can only be estimated for public targets with available data to calculate target stock returns and form a prediction, respectively. Similarly, our measure of entrenchment (*ENTRENCHED*) requires data from Institutional Shareholder Services that is not available for all sample firms. Thus, in the spirit of Skaife and Wangerin (2013), we create a composite variable that is the average of the available agency conflict measures (each of which we first convert to an indicator variable to allow for equal weighting) (*AGENCY_CONFLICTS*). This composite variable allows us to capture multiple dimensions of agency conflicts while also preserving sample size. We discuss these variables in the next paragraph.

In Panel B of Table 2, we partition acquirers by whether they elect the exemption. Consistent with our expectations, those that elect the exemption tend to acquire the target later in the year, with 16.8 (34.3) percent of deals completed in the first (fourth) quarter. We do not find a difference in the relative deal sizes, which is consistent with the univariate statistics in Table 1, Panel B, where we document that deal size matters primarily among the smaller deals. Exemption use is less likely for U.S. public targets; within U.S public targets, exemption use is less likely when the acquirer and target share the same audit firm. Exemption use is more likely when the target is foreign and when the acquirer is audited by a Big Four auditor (*ACQUIRER_BIG4*). Acquirers that elect the exemption have higher free cash flows (*ACQUIRER_FREE_CF*) and are more likely to have entrenched managers (*ENTRENCHED*), although our composite measure of agency conflicts (*AGENCY_CONFLICTS*) is not statistically different between the two groups. Finally, exemption users are more likely to have also elected the exemption in a prior year (*LAST_DEAL_EXEMPT*) and have higher pre-acquisition stock returns (*ACQUIRER_PRIOR_RET*).

Turning to our post-acquisition outcome variables, 48.1% of firms impair their goodwill over the subsequent 5 years (*GW_IMPAIR*) (Panel A), and this percentage is higher among firms that elect the exemption (52.1%) than among those that do not (41.8%) (Panel B).[15] Relative to firms opting for compliance, acquirers that elect the exemption

[14] We also separately examine targets that were stand-alone U.S. public targets and those that were subsidiaries of a U.S. public parent; we find no significant difference in the likelihood of exemption (untabulated).

[15] These percentages are based on impairments identified using Compustat data. Although widely available and easily replicable, a shortcoming of the Compustat data is that it includes the impairment of any goodwill, whether related to the specific acquisition in our sample or not. It also includes some impairments of other nongoodwill intangibles. In Section 4.2, we also examine a refined measure of goodwill impairments that we manually link to the acquisitions in our sample.

Table 2 Descriptive statistics

Panel A: Distributional statistics

Variable	Mean	Median	Standard Deviation	25th Quartile	75th Quartile	N
EXEMPT	0.607	1.000	0.489	0.000	1.000	1070
Costs and Benefits of Compliance Variables						
QTR1_DEAL	0.236	0.000	0.425	0.000	0.000	1070
QTR4_DEAL	0.289	0.000	0.453	0.000	1.000	1070
RELATIVE_SIZE	0.606	0.389	0.851	0.268	0.686	1070
US_PUBLIC_TARGET	0.410	0.000	0.492	0.000	1.000	1070
TARGET_404b	0.928	0.000	0.259	0.000	0.000	415
TARGET_ICMW	0.067	0.000	0.251	0.000	0.000	415
SHARED_AUDITOR	0.267	0.000	0.443	0.000	1.000	415
TARGET_BIG4	0.904	1.000	0.295	1.000	1.000	415
FOREIGN_TARGET	0.175	0.000	0.380	0.000	0.000	1070
ACQUIRER_BIG4	0.848	1.000	0.360	1.000	1.000	1070
ACQUIRER_ICMW	0.067	0.000	0.251	0.000	0.000	1070
PCAOB_IC_SCRUTINY	5.460	3.750	5.447	0.750	9.000	1070
Agency Conflict Variables						
ACQUIRER_FREE_CF	0.024	0.048	0.155	−0.011	0.097	1070
ACQ_ANNOUNCE_RET	0.024	0.016	0.102	−0.037	0.072	1070
ENTRENCHED	0.344	0.000	0.475	0.000	1.000	477
TARGET_PROB_ICMW	0.098	0.040	0.176	0.022	0.085	369
SYNERGIES	0.031	0.017	0.074	−0.014	0.074	401
AGENCY_CONFLICTS	0.327	0.333	0.292	0.000	0.500	1070
Acquirer and Deal Characteristics						
LAST_ DEAL_EXEMPT	0.184	0.000	0.388	0.000	0.000	1070
ALL_STOCK	0.187	0.000	0.390	0.000	0.000	1070
ALL_CASH	0.452	0.000	0.498	0.000	1.000	1070
DIVERSIFYING_DEAL	0.321	0.000	0.467	0.000	1.000	1070
HOSTILE_DEAL	0.003	0.000	0.053	0.000	0.000	1070
ACQUIRER_SIZE	6.879	6.831	1.515	5.763	7.903	1056
ACQUIRER_LEV	0.575	0.580	0.221	0.441	0.699	1056
ACQUIRER_MTB	1.415	1.307	0.496	1.072	1.592	1056
ACQUIRER_BLOCKHOLDER	0.896	1.000	0.306	1.000	1.000	1056
ACQUIRER_PRIOR_RET	0.238	0.139	0.548	−0.103	0.478	1056
Post-Acquisition Outcome Variables						
GW_IMPAIR	0.481	0.000	0.500	0.000	1.000	1007
ROA_CHANGE	−0.013	−0.013	0.094	−0.057	0.026	870
RESTATE	0.118	0.000	0.323	0.000	0.000	1056
FILING_RET	−0.005	−0.005	0.062	−0.035	0.026	1001
FUTURE_BHAR_3YEAR	0.017	−0.056	0.824	−0.505	0.353	956

Table 2 (continued)

Panel B: Means and medians by exemption status

	EXEMPT = 0 (N = 420)[a]		*EXEMPT = 1 (N = 650)*[a]	
Variable	**Mean**	**Median**	**Mean**	**Median**
Costs and Benefits of Compliance Variables				
QTR1_DEAL	0.340	0.000	0.168***	0.000***
QTR4_DEAL	0.205	0.000	0.343***	0.000***
RELATIVE_SIZE	0.593	0.378	0.614	0.397
US_PUBLIC_TARGET	0.474	0.000	0.369***	0.000***
TARGET_404b	0.942	1.000	0.916	1.000
TARGET_ICMW	0.084	0.000	0.053	0.000
SHARED_AUDITOR	0.316	0.000	0.227**	0.000**
TARGET_BIG4	0.926	1.000	0.884	1.000
FOREIGN_TARGET	0.121	0.000	0.209***	0.000***
ACQUIRER_BIG4	0.810	1.000	0.872***	1.000***
ACQUIRER_ICMW	0.057	0.000	0.074	0.000
PCAOB_IC_SCRUTINY	5.150	2.500	5.660	3.750*
Agency Conflict Variables				
ACQUIRER_FREE_CF	0.004	0.037	0.037***	0.053***
ACQ_ANNOUNCE_RET	0.024	0.018	0.024	0.015
ENTRENCHED	0.293	0.000	0.373*	0.000*
TARGET_PROB_ICMW	0.092	0.037	0.104	0.042
SYNERGIES	0.032	0.019	0.030	0.013
AGENCY_CONFLICTS	0.314	0.333	0.335	0.333
Acquirer and Deal Characteristics				
LAST_DEAL_EXEMPT	0.143	0.000	0.211***	0.000***
ALL_STOCK	0.205	0.000	0.175	0.000
ALL_CASH	0.429	0.000	0.468	0.000
DIVERSIFYING_DEAL	0.314	0.000	0.325	0.000
HOSTILE_DEAL	0.007	0.000	0.000**	0.000**
ACQUIRER_SIZE	6.886	6.797	6.875	6.831
ACQUIRER_LEV	0.579	0.568	0.573	0.585
ACQUIRER_MTB	1.422	1.283	1.410	1.320
ACQUIRER_BLOCKHOLDER	0.889	1.000	0.900	1.000
ACQUIRER_PRIOR_RET	0.202	0.104	0.262*	0.152*
Post-Acquisition Outcome Variables				
GW_IMPAIR	0.418	0.000	0.521***	1.000***
ROA_CHANGE	−0.002	−0.010	−0.020***	−0.014**
RESTATE	0.082	0.000	0.142***	0.000***
FILING_RET	0.000	−0.001	−0.008*	−0.007**
FUTURE_BHAR_3YEAR	0.089	0.023	−0.032***	−0.098***

Variables are defined in the appendix. In Panel B, ***, **, * indicate significant differences at the 1, 5, and 10% levels (two-sided), respectively, between firms that elect to exempt their acquired businesses and those that do not

[a] The number of observations is less for variables where data is not available

experience lower post-acquisition profitability (−0.020 versus −0.002) (*ROA_CHANGE*) and a higher incidence of restatements (14.2% versus 8.2%) (*RESTATE*).[16]

We see a difference in stock returns around 10-K filings, where exemptions are disclosed (−0.008 versus 0.000) (*FILING_RET*), suggesting investors either view the internal control audit as a net benefit or view the exemption as a signal about the underlying acquisition.[17] Finally, we provide evidence of a difference in buy-and-hold abnormal returns for the 3 years following the 10-K filing (−0.032 versus 0.089) (*FUTURE_BHAR_3YEAR*), suggesting that stock returns for acquirers that elect the exemption underperform those of acquirers that comply with Section 404 in the 3 years after the exemption announcement.[18]

In Table 3, we present various decompositions of the exemption choice. In Panel A, we break out the exemption percentage by fiscal quarter and target status (U.S. public, U.S. private, and foreign). Exemptions become more likely as the year progresses (with an average of 43% in quarter one and 72% in quarter four), with time of deal completion appearing to play the largest role for U.S. public targets. This pattern is consistent with the likelihood of exemption increasing with the compliance costs, where these costs are higher later in the year. The pattern is strongest among U.S. public targets, which is consistent with time of deal representing a larger factor in these deals, relative to private and foreign deals where compliance costs may be larger throughout the year.

In Panel B, we present the number of acquisitions across the years of our sample. The number of acquisitions is highest (lowest) for 2012 (2009), consistent with the economic environment (where 2009 was the height of the "great recession"). The exemption rate ranges from a high of 74.6% in 2006 to a low of 38.3% in 2009. Overall, acquirers with Big Four auditors are more likely to elect the exemption (62.5% versus 50.9%), but this is driven by recent years (2010 onwards). By 2014, 75.8% of acquirers with Big Four auditors elect the exemption, whereas 46.7% of acquirers with non-Big Four auditors elect the exemption.

We note that the uptick in exemptions coincides with the PCAOB's recent increase in emphasis on internal control audits in its inspections (DeFond and Lennox 2017). For example, the mean number of internal control audit-related deficiencies disclosed by the PCAOB from its inspections of Big Four auditors increased sharply from 0.75 in 2009 to 16.50 in 2013 (where we consider the lagged value of deficiencies in our analyses, as this would be available to audit firms and their clients at the time of their exemption decisions) (*PCAOB_IC_SCRUTINY*). This pattern is consistent with exemption use increasing in response to the risk of internal control audit deficiencies from PCAOB inspections, which could be an unintended consequence of the PCAOB's heightened scrutiny. In particular, the increase in PCAOB-identified deficiencies may increase the costs of internal control audits for acquirers in at least two related ways. The first is an increase in fees charged by the audit firms, which pass on some of their incremental costs relating to

[16] Our restatements variable here is based on a complete pull from Audit Analytics; in Section 4.2, we also examine refined measures of material restatements and restatements that we can manually link to the acquisitions in our sample.

[17] In subsequent analyses, we separately examine observations where the exemption use is potentially disclosed earlier in the year in a 10-Q filing. For these observations, abnormal returns around the 10-K filing are not significantly different from zero.

[18] We examine additional measurement windows for future buy-and-hold abnormal returns in Section 4.3.

Table 3 Univariate analyses

Panel A: Exemptions by fiscal quarter and target type

	All		U.S. public targets		U.S. private targets		Foreign targets	
Time of deal completion	**N**	**% Exempt**	**N**	**% Exempt**	**N**	**% Exempt**	**N**	**% Exempt**
1st Quarter	252	43%	113	29%	89	47%	50	68%
2nd Quarter	253	59%	100	49%	107	62%	46	72%
3rd Quarter	256	66%	103	65%	115	64%	38	76%
4th Quarter	309	72%	123	74%	133	69%	53	75%

Panel B: Exemptions by year and auditor type

Acquisition Completion Year	**Number of Acquisitions**				***ACQUIRER_BIG4* = 1**	***ACQUIRER_BIG4* = 0**	***PCAOB_IC_SCRUTINY***
	Total	***EXEMPT* = 1**	***EXEMPT* = 0**	**% Exempt**	**% Exempt**	**% Exempt**	
2005	113	74	39	65.5%	65.1%	71.4%	3.75
2006	114	85	29	74.6%	72.7%	86.7%	4.00
2007	128	82	46	64.1%	64.5%	61.9%	0.75
2008	91	53	38	58.2%	55.7%	66.7%	1.00
2009	47	18	29	38.3%	36.1%	45.5%	0.00
2010	127	75	52	59.1%	60.9%	47.1%	0.75
2011	107	55	52	51.4%	57.6%	27.3%	2.50
2012	134	68	66	50.7%	55.2%	22.2%	9.00
2013	103	64	39	62.1%	64.4%	50.0%	12.75
2014	106	76	30	71.7%	75.8%	46.7%	16.50
Total	1070	650	420	60.7%	62.5%	50.9%	5.46

Variables are defined in the appendix

the PCAOB-identified deficiencies (e.g., Acito et al. 2018; DeFond and Lennox 2017). The second is an increase in the internal documentation and testing of controls within the acquiring firms; as inspectors pressure auditors, auditors demand more from their clients.[19] These arguments are also consistent with survey evidence that the PCAOB's inspections of external auditors have led to increases in SOX compliance costs in recent years (Heller 2015; Protiviti 2015).

Table 4 presents correlations among the main variables in our analysis. Consistent with the preceding discussion, there is a negative (positive) correlation between exemption use and first-quarter (fourth-quarter) deals. Exemption use is negatively associated with public targets—and even more so if those public targets share an auditor with the acquirer. Exemption use is positively associated with foreign targets and the acquirer using a Big Four auditor or having used the exemption in their most

[19] For example, in his letter dated May 29, 2015, Tom Quaadman, vice president of Center for Capital Markets Competitiveness wrote to James Schnurr (chief accountant of the SEC) and James Doty (chairman of the PCAOB) and expressed concern that an unintended consequence of the PCAOB inspection process is to increase the "costs and burdens for work that may in some instances not lead to more effective audits or controls" further noting the existence of "excessive compliance activities that are not understood and where the costs clearly exceed the benefits."

recent large acquisition. Focusing on the acquisition outcomes, exemptions are associated with negative consequences, such as goodwill impairments, lower profits, restatements, negative investor reactions to the announcement of the exemption and lower subsequent stock returns.

4 Test design and results

4.1 Hypotheses 1a and 1b

To test Hypothesis 1a, that firms are more likely to elect exemption when net compliance costs are higher, we estimate a logistic regression, presented in Table 5, Panel A, with an array of potential compliance costs and benefits. In the first column, we consider all deals. The subsequent three columns break out deals by target status (U.S. public targets, U.S. private targets, and foreign targets). Data on targets' audit firms and internal control reporting are only available for U.S. public targets; accordingly, the related variables are only included in the U.S. public targets column.[20]

With the exception of deals with foreign targets, acquirers with first quarter deals are less likely to elect exemption, whereas acquirers with fourth quarter deals are more likely to elect exemption overall and among U.S. public targets. This finding is consistent with the compliance costs being higher later in the fiscal year, without a corresponding increase in the benefits, culminating in a higher likelihood of exemption as the fiscal year progresses. In terms of economic significance, first quarter deals are 20.1% less likely to elect the exemption, and fourth quarter deals are 13.1% more likely to elect the exemption, relative to deals in the middle two quarters of the year. Jointly, these two variables add 5.19% to the area under the ROC curve. (The area under the ROC curve for Column 1 would be 63.32 absent these two variables; not tabulated.)

Consistent with our descriptive statistics, we find no evidence that relative deal size matters in Table 5, where we have already conditioned on relatively large deals (relative deal size of at least 20%).[21] Exemption is 7.1% less likely for U.S. public targets, relative to U.S. private targets. This suggests that U.S. public targets may have features that allow for an easier transition and thus lower compliance costs. Consistent with this notion, within U.S. public targets we find an 11.8% lower likelihood of exemption, if the target and acquirer have the same auditor, and a 16.6% lower likelihood, if the target is audited by a Big Four audit firm.

We expect foreign targets to have higher compliance costs, due to both their geographic differences and differences between the acquirer's and target's accounting processes and standards. These same factors, however, may also increase the potential benefits of compliance for foreign targets. Turning to the results, foreign targets are positively associated with exemption use, with a 15.3% higher

[20] There are 24 acquisitions of U.S. public targets where data is not available for these variables, so we exclude these observations when estimating the model for only U.S. public targets.

[21] Deal size is strongly correlated with exemption in Table 1, Panel B, where we examine smaller deals, and this variable continues to load in a full regression with all of the variables in Column 1 of Table 5, Panel A (not tabulated). In untabulated results, we find that the coefficient on the interaction of *LN(RELATIVE_SIZE)* × *QTR4_DEAL* is significantly positive with a z-statistic of 1.75, which suggests that deal size becomes more important late in the year.

Table 4 Correlations

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1)	*EXEMPT*		**−0.20**	**0.15**	0.02	**−0.10**	−0.05	−0.06	**−0.10**	−0.07	**0.11**	**0.09**	0.03
(2)	*QTR1_DEAL*	**−0.20**		**−0.35**	−0.02	0.04	0.02	0.04	0.05	0.02	0.03	0.05	0.00
(3)	*QTR4_DEAL*	**0.15**	**−0.35**		0.02	−0.02	0.01	−0.06	−0.05	0.00	−0.01	0.00	**−0.07**
(4)	*LN(RELATIVE_SIZE)*	0.01	−0.02	0.00		**0.21**	**0.10**	0.05	−0.02	0.07	−0.05	**0.06**	−0.04
(5)	*US_PUBLIC_TARGET*	**−0.10**	0.04	−0.02	**0.22**		**n/a**	**n/a**	**n/a**	**n/a**	**−0.38**	**0.12**	**−0.08**
(6)	*TARGET_404b*	−0.05	0.02	0.01	**0.09**	**n/a**		0.08	0.02	**0.16**	**n/a**	**0.15**	**−0.12**
(7)	*TARGET_ICMW*	−0.06	0.04	−0.06	0.07	**n/a**	0.08		−0.01	−0.01	**n/a**	0.00	**0.12**
(8)	*SHARED_AUDITOR*	**−0.10**	0.05	−0.05	−0.04	**n/a**	0.02	−0.01		**0.09**	**n/a**	**0.10**	0.08
(9)	*TARGET_BIG4*	−0.07	0.02	0.00	**0.08**	**n/a**	**0.16**	−0.01	**0.09**		**n/a**	**0.21**	**−0.12**
(10)	*FOREIGN_TARGET*	**0.11**	0.03	−0.01	−0.05	**−0.38**	**n/a**	**n/a**	**n/a**	**n/a**		−0.01	0.02
(11)	*ACQUIRER_BIG4*	**0.09**	0.05	0.00	**0.07**	**0.12**	**0.15**	0.00	**0.10**	**0.21**	−0.01		0.00
(12)	*ACQUIRER_ICMW*	0.03	0.00	**−0.07**	−0.03	**−0.08**	**−0.12**	**0.12**	0.08	**−0.12**	0.02	0.00	
(13)	*PCAOB_IC_SCRUTINY*	0.05	−0.01	−0.04	−0.04	−0.03	**0.10**	−0.05	0.03	0.00	0.00	0.02	0.04
(14)	*TIME_TREND*	−0.05	−0.03	0.05	**−0.06**	−0.04	**0.16**	**−0.13**	−0.02	−0.04	0.03	−0.03	**−0.06**
(15)	*AGENCY_CONFLICTS*	0.04	0.00	0.00	**−0.07**	**0.05**	**−0.15**	0.02	0.06	**−0.09**	−0.04	0.04	0.02
(16)	*LAST_DEAL_EXEMPT*	**0.09**	−0.01	0.01	0.01	**−0.05**	0.02	−0.01	0.05	0.01	0.04	−0.03	−0.01
(17)	*GW_IMPAIR*	**0.10**	0.03	0.01	**0.06**	−0.01	−0.02	−0.03	−0.02	0.02	**−0.06**	−0.03	0.00
(18)	*ROA_CHANGE*	**−0.09**	−0.01	**−0.07**	0.01	−0.04	−0.02	−0.05	0.03	**−0.09**	**−0.07**	−0.04	−0.03
(19)	*RESTATE*	**0.09**	−0.04	**0.05**	0.01	**−0.09**	0.01	0.02	0.06	**−0.09**	0.04	0.02	**0.19**
(20)	*FILING_RET*	**−0.06**	0.03	**−0.07**	0.02	0.04	−0.03	0.07	0.04	0.03	0.00	0.03	0.03
(21)	*FUTURE_BHAR_3YEAR*	**−0.07**	−0.01	−0.02	−0.02	0.02	0.00	−0.02	**0.09**	0.08	0.03	**0.07**	**−0.07**

Table 4 (continued)

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
(1)	**0.06**	−0.04	0.03	**0.09**	**0.10**	**−0.07**	**0.09**	**−0.07**	**−0.06**
(2)	−0.01	−0.03	−0.01	−0.01	0.03	0.00	−0.04	0.03	0.00
(3)	**−0.05**	0.04	0.00	0.01	0.01	**−0.06**	**0.05**	**−0.06**	0.01
(4)	−0.02	**−0.06**	**−0.06**	−0.01	**0.06**	−0.02	0.01	0.01	−0.03
(5)	**−0.05**	−0.04	**0.07**	**−0.05**	−0.01	**−0.06**	**−0.09**	0.04	0.03
(6)	0.08	**0.16**	**−0.15**	0.02	−0.02	−0.03	0.01	0.00	−0.03
(7)	0.01	**−0.13**	0.03	−0.01	−0.03	−0.05	0.02	**0.09**	−0.04
(8)	0.04	−0.02	0.08	0.05	−0.02	**0.09**	0.06	0.07	**0.11**
(9)	0.04	−0.05	**−0.08**	0.01	0.02	−0.07	**−0.09**	0.04	0.06
(10)	0.00	0.03	−0.05	0.04	**−0.06**	−0.05	0.04	0.00	0.02
(11)	0.04	−0.03	0.04	−0.03	−0.03	−0.03	0.02	0.03	**0.06**
(12)	**0.08**	**−0.06**	0.01	−0.01	0.00	−0.01	**0.19**	0.04	**−0.09**
(13)		**0.57**	**−0.18**	**0.08**	−0.05	0.05	**0.05**	**0.06**	−0.02
(14)	**0.73**		**−0.10**	**0.17**	**−0.16**	**0.06**	**0.07**	0.03	**0.06**
(15)	**−0.16**	**−0.08**		0.00	−0.02	**−0.15**	0.00	0.02	0.05
(16)	**0.09**	**0.17**	0.00		**0 .08**	0.01	0.02	0.05	−0.04
(17)	**−0.10**	**−0.16**	−0.03	**0.08**		**−0.13**	0.02	−0.03	**−0.27**
(18)	0.03	0.02	**−0.16**	0.00	**−0.14**		−0.04	0.03	**0.19**
(19)	0.04	**0.07**	0.00	0.02	0.02	−0.04		0.02	**−0.09**
(20)	**0.08**	0.04	0.01	0.02	−0.02	0.04	0.04		−0.01
(21)	−0.01	0.04	**0.06**	−0.02	**−0.24**	**0.14**	**−0.07**	−0.03	

Variables are defined in the appendix. Spearman (Pearson) correlations are presented above (below) the diagonal. We calculate pairwise correlation coefficients using all available observations for each variable pair. Some variables are only available for U.S. public targets and thus do not co-vary with either *US_PUBLIC_TARGET* or *FOREIGN_TARGET*; we mark the corresponding cells with n/a. Correlations that are significant at the 10% level or lower (two-tailed) are presented in bold

likelihood of exemption than for U.S. private targets, which could reflect the anticipated costs of compliance being more likely to exceed the anticipated benefits of compliance for foreign targets.

Diversifying deals are those in which the target operates in a different industry than the acquirer, and thus we expect the compliance costs to be higher for these transactions, as there could be differences in operations and business processes that require unique sets of internal controls. This variable, however, is insignificant in each column of Table 5. We again see that acquirers with Big Four auditors are more likely to elect exemption overall; this extends to U.S. private targets as well as foreign targets but not U.S. public targets, perhaps reflecting that Big Four internal control audit costs are

Table 5 Determinants of exempting acquired businesses from internal control audit

	All Deals		U.S. Public Targets		U.S. Private Targets		Foreign Targets	
Variable	Coefficient (p value)	Marginal Effect	Coefficient (p value)	Marginal Effect	Coefficient (p value)	Marginal Effect	Coefficient (p value)	Marginal Effect
Panel A: Determinants model								
QTR1_DEAL	−0.852***	−20.1%	−1.149***	−28.5%	−0.752***	−17.6%	−0.324	−6.0%
	(0.000)		(0.000)		(0.004)		(0.418)	
QTR4_DEAL	0.558***	13.1%	0.789***	19.5%	0.401	9.4%	0.182	3.4%
	(0.001)		(0.003)		(0.110)		(0.672)	
LN(RELATIVE_SIZE)	0.055	1.2%	0.109	2.5%	−0.044	−1.0%	0.162	2.8%
	(0.599)		(0.493)		(0.810)		(0.580)	
US_PUBLIC_TARGET	−0.300**	−7.1%						
	(0.047)							
TARGET_404b			−0.302	−7.5%				
			(0.490)					
TARGET_ICMW			−0.589	−14.6%				
			(0.190)					
SHARED_AUDITOR			−0.477*	−11.8%				
			(0.058)					
TARGET_BIG4			−0.671*	−16.6%				
			(0.088)					
FOREIGN_TARGET	0.647***	15.3%						
	(0.002)							
DIVERSIFYING_DEAL	0.004	0.1%	−0.271	−6.7%	0.164	3.8%	0.324	6.0%
	(0.976)		(0.234)		(0.462)		(0.366)	
ACQUIRER_BIG4	0.577***	13.6%	0.486	12.0%	0.553**	12.9%	1.180***	21.9%
	(0.002)		(0.173)		(0.022)		(0.009)	
ACQUIRER_ICMW	0.140	3.3%	−0.043	−1.1%	0.121	2.8%	0.877	16.3%
	(0.610)		(0.936)		(0.747)		(0.395)	
PCAOB_IC_SCRUTINY	0.083***	16.2%	0.079**	16.1%	0.088***	17.0%	0.103**	15.8%
	(0.000)		(0.010)		(0.002)		(0.024)	
TIME_TREND	−0.173***	−20.4%	−0.149**	−18.5%	−0.205***	−23.9%	−0.239**	−22.3%
	(0.000)		(0.011)		(0.000)		(0.020)	
LAST_ DEAL_EXEMPT	0.577***	13.6%	0.423	10.5%	0.786***	18.4%	0.481	8.9%
	(0.001)		(0.186)		(0.003)		(0.297)	
N	1070		415		444		187	
Area under ROC curve	68.51%		71.32%		66.61%		70.82%	
Pseudo R^2	8.15%		11.44%		6.23%		9.12%	

Table 5 (continued)

	All Deals		U.S. Public Targets		U.S. Private Targets		Foreign Targets	
Variable	Coefficient (p value)	Marginal Effect	Coefficient (p value)	Marginal Effect	Coefficient (p value)	Marginal Effect	Coefficient (p value)	Marginal Effect
Panel B: Determinants model including agency conflicts								
QTR1_DEAL	−0.850***	−20.0%	−1.154***	−28.6%	−0.752***	−17.6%	−0.328	−6.0%
	(0.000)		(0.000)		(0.004)		(0.416)	
QTR4_DEAL	0.566***	13.3%	0.810***	20.1%	0.403	9.4%	0.165	3.0%
	(0.001)		(0.002)		(0.109)		(0.700)	
LN(RELATIVE_SIZE)	0.073	1.6%	0.158	3.7%	−0.043	−0.9%	0.203	3.5%
	(0.489)		(0.326)		(0.814)		(0.483)	
US_PUBLIC_TARGET	−0.317**	−7.5%						
	(0.036)							
TARGET_404b			−0.230	−5.7%				
			(0.595)					
TARGET_ICMW			−0.620	−15.4%				
			(0.170)					
SHARED_AUDITOR			−0.536**	−13.3%				
			(0.034)					
TARGET_BIG4			−0.649	−16.1%				
			(0.113)					
FOREIGN_TARGET	0.660***	15.5%						
	(0.001)							
DIVERSIFYING_DEAL	0.016	0.4%	−0.283	−7.0%	0.165	3.9%	0.399	7.3%
	(0.912)		(0.219)		(0.459)		(0.273)	
ACQUIRER_BIG4	0.563***	13.3%	0.538	13.3%	0.551**	12.9%	1.174***	21.5%
	(0.002)		(0.144)		(0.023)		(0.009)	
ACQUIRER_ICMW	0.122	2.9%	−0.141	−3.5%	0.122	2.9%	0.811	14.8%
	(0.657)		(0.792)		(0.746)		(0.447)	
PCAOB_IC_SCRUTINY	0.089***	17.2%	0.094***	19.1%	0.088***	17.1%	0.131***	19.7%
	(0.000)		(0.003)		(0.002)		(0.008)	
TIME_TREND	−0.178***	−21.0%	−0.154***	−19.2%	−0.205***	−24.0%	−0.256**	−23.5%
	(0.000)		(0.008)		(0.000)		(0.013)	
LAST_DEAL_EXEMPT	0.574***	13.5%	0.470	11.6%	0.786***	18.4%	0.335	6.1%
	(0.001)		(0.155)		(0.003)		(0.476)	
AGENCY_CONFLICTS	0.449*	5.3%	1.097**	13.6%	0.034	0.4%	1.172*	10.7%
	(0.053)		(0.015)		(0.917)		(0.059)	
N	1070		415		444		187	
Area under ROC curve	68.76%		72.23%		66.59%		72.07%	
Pseudo R^2	8.41%		12.43%		6.24%		10.65%	

This table presents the results of logistic regressions with *EXEMPT* as the dependent variable. Variables are defined in the appendix. Twenty-four observations are dropped from the U.S. public target regressions because data is not available to construct the additional variables. Standard errors are clustered by acquirer. ***, **, * indicate statistical significance at the 1, 5, and 10% levels (two-sided), respectively. Marginal effects represent changes in the probability of exemption for an interquartile increase for continuous variables or for a change from 0 to 1 for indicator variables, with all other independent variables taking their mean values

higher for private and foreign firms. We find that exemption use is increasing in PCAOB internal control audit scrutiny across each of the estimations, perhaps reflecting inspection-related increases in the perceived cost of internal control audits. Finally, the frequency of exemptions decreases with time, after

controlling for both the acquirer using a Big Four auditor and PCAOB scrutiny, consistent with general trends in lower compliance costs over time.

To test Hypothesis 1b, that acquirers elect exemption to avoid scrutiny, we add our composite measure of agency conflicts (*AGENCY_CONFLICTS*) and present the results in Table 5, Panel B.[22] The coefficients on the compliance cost variables are generally similar after including the agency conflict variable. We find, in three of the four specifications (all but U.S. private targets), that agency conflicts are positively associated with the choice to exempt the acquisition from Section 404.[23] Overall, however, the marginal effect of 5.3% is fairly modest, and the area under the ROC curve only increases from 68.51 to 68.76%, once we include the additional variable, suggesting that, in most cases, managerial incentives to avoid scrutiny of their acquisitions are not the primary driver of these exemptions.

4.2 Hypothesis 2

To test our second hypothesis, that exemption firms experience more negative post-acquisition outcomes than those that voluntarily comply with Section 404, we estimate regressions of the following general form:

$$FUTURE\_OUTCOME = \beta_0 + \beta_1 EXEMPT + Controls + \varepsilon. \quad (1)$$

We consider both operational and financial reporting outcomes. For operational outcomes, we consider future goodwill impairments (*GW_IMPAIR*) and the change in future return-on-assets (*ROA_CHANGE*) (Table 6). For financial reporting outcomes, we consider ex post restatements of the financial statements issued for the year of deal completion (*RESTATE*) (Table 7).

Starting with Table 6, as in the univariate analysis in Table 2, Panel B, we measure goodwill impairments as an indicator variable equal to one if Compustat identifies the firm as recognizing a goodwill impairment in the next five years (fiscal year $t + 1$ through $t + 5$, where t is the fiscal year the acquisition is completed) and zero otherwise. We find evidence that exempt acquisitions have a higher likelihood of future goodwill impairments, which is both economically and statistically significant; a marginal effect of 10.1% represents 21.0% of the unconditional probability of a goodwill impairment in our sample (10.1 / 48.1). One possible reason behind the higher likelihood of goodwill impairments for exempt acquisitions is that timely internal control assessments aid management in their integration of the new entity, allowing them to better realize anticipated synergies as well as more quickly identify and address integration challenges. Thus exemption leads to the realization of fewer synergies.

[22] An alternative approach would be to include each of the five indicator variables individually, but this approach results in a large loss of observations. In untabulated analyses, when each of the five indicator variables are included separately, we find that entrenched managers are positively associated with exemptions. When including acquirer free cash flows, acquirer announcement returns, predicted probability of target ineffective controls, and synergy separately as continuous, rather than indicator, variables we find that acquirer free cash flows are positively associated with exemption.

[23] The lack of evidence of agency-related incentives within U.S. private targets is consistent with research showing that private firms are less likely to be the target of agency-conflict-driven deals (Harford et al. 2012).

Another possibility is that undiscovered or unremediated internal control problems generate lower quality internal reports, leading to suboptimal operating decisions (e.g., Feng et al. 2015).

A potential alternative explanation is that managers that choose to exempt have more severe agency conflicts and generally make poor acquisitions. In addition to controlling for agency conflicts in our model, we refine the impairment variable based on whether the impairment is tied to the specific acquisition we are examining. Following Wangerin (2017), for each of the goodwill impairments identified by Compustat (as used in our main variable), we manually examine the associated 10-K filings and code the impairment as related if the firm either explicitly discloses that the impairment relates to the acquisition or if the impairment was charged to the reporting unit for which the goodwill from the acquisition was originally allocated. Of the 484 impairments, we can link 296 of them to the acquisition in our sample. For the second regression in Table 6, we replace *GW_IMPAIR* with our refined variable, setting *SAME_DEAL_IMPAIR* equal to one for the 296 related goodwill impairments we identify and zero otherwise. We find similar results. The coefficient on *EXEMPT* is again positive and significant, with a marginal effect of 9.3%, which is 31.6% of the unconditional probability of a related impairment in our sample (= 9.3 / (296 / 1007)). As an untabulated falsification test, we re-estimate the regression using the 188 impairments that we could not tie to either the specific acquisition in our sample or the reporting unit for which the goodwill from the acquisition was originally allocated. The coefficient on *EXEMPT* is insignificant ($p = 0.803$) for these unrelated impairments, which is consistent with *EXEMPT* capturing the effects of exemption in our main tests, rather than simply reflecting firms that generally make poor acquisitions.[24]

Turning to the final column in Table 6, the results illustrate that exemption firms tend to experience more negative future changes in return-on-assets (−1.1%), providing evidence consistent with that of goodwill impairments. Two aspects of the results are noteworthy. First, the numerator of return-on-assets is measured with operating income before depreciation. Thus goodwill impairments do not impact this measure; the lower profitability relates to core operations and is consistent with internal control problems leading to operating inefficiencies. Second, the numerator does include internal control audit compliance costs, and thus this measure provides insights on the net benefits of compliance.

In Table 7, we examine subsequent restatements of the financial statements for the year of acquisition completion. In the first regression, we focus on all restatement types (*RESTATE*). The coefficient on *EXEMPT* is positive and statistically significant with a marginal effect of 6.0%, which is also economically significant, relative to the unconditional probability of restatement of 11.8% (= 125 / 1056). We

[24] In an untabulated analysis, we separately examine the 168 observations from firms with at least two acquisitions in our sample and with at least one exempted deal and one non-exempted deal. Within this group, deals where the exemption is used are 8.8% more likely to be associated with a related goodwill impairment (*SAME_DEAL_IMPAIR*) than non-exempt deals *in the same firms* ($p = 0.104$, one-tailed), further corroborating our evidence that exemption use is associated with a higher likelihood that goodwill from the deal will later be impaired.

Table 6 Post-acquisition operational outcomes: goodwill impairments and changes in profitability

	Future Goodwill Impairments				Future Profitability
Dep Var =	*GW_IMPAIR*		*SAME_DEAL_IMPAIR*		*ROA_CHANGE*
Variable	Coefficient (p value)	Marginal Effect	Coefficient (p value)	Marginal Effect	Coefficient (p value)
EXEMPT	0.404***	10.1%	0.473***	9.3%	−0.011*
	(0.007)		(0.005)		(0.071)
LN(RELATIVE_SIZE)	0.082	1.9%	0.199	3.6%	0.004
	(0.495)		(0.148)		(0.491)
US_PUBLIC_TARGET	−0.315*	−7.9%	−0.199	−3.9%	−0.002
	(0.080)		(0.323)		(0.835)
FOREIGN_TARGET	−0.591***	−14.7%	−0.218	−4.3%	−0.018**
	(0.003)		(0.290)		(0.034)
ACQUIRER_BIG4	−0.436**	−10.9%	−0.043	−0.8%	0.020**
	(0.038)		(0.848)		(0.039)
ACQUIRER_ICMW	−0.033	−0.8%	0.265	5.2%	−0.027*
	(0.909)		(0.356)		(0.090)
ACQUIRER_FREE_CF	1.090**	2.9%	−0.122	−0.3%	−0.204***
	(0.038)		(0.828)		(0.000)
ACQ_ANNOUNCE_RET	−0.607	−1.6%	−1.029	−2.2%	−0.004
	(0.457)		(0.299)		(0.925)
AGENCY_CONFLICTS	−0.417	−5.2%	−0.132	−1.3%	−0.026*
	(0.142)		(0.682)		(0.070)
ACQUIRER_BLOCKHOLDER	−0.069	−1.7%	0.158	3.1%	0.007
	(0.780)		(0.525)		(0.599)
ACQUIRER_SIZE	0.128**	6.8%	−0.038	−1.6%	−0.010***
	(0.032)		(0.559)		(0.000)
ACQUIRER_LEV	−0.516	−3.3%	−1.312***	−6.6%	−0.007
	(0.204)		(0.003)		(0.803)
ACQUIRER_MTB	−1.069***	−13.7%	−0.694***	−7.0%	0.024**
	(0.000)		(0.000)		(0.013)
ACQUIRER_PRIOR_RET	0.043	0.6%	−0.050	−0.6%	0.018**
	(0.757)		(0.758)		(0.024)
ALL_STOCK	0.319	8.0%	−0.238	−4.7%	0.006
	(0.363)		(0.559)		(0.734)
ALL_CASH	0.139	3.5%	−0.075	−1.5%	−0.006
	(0.383)		(0.656)		(0.362)
*US_PUBLIC_TARGET*ALL_STOCK*	−0.244	−6.1%	0.283	5.6%	−0.006
	(0.540)		(0.535)		(0.766)
DIVERSIFYING_DEAL	0.166	4.1%	0.124	2.4%	−0.000
	(0.268)		(0.433)		(0.982)
HOSTILE_DEAL	−0.797	−19.9%	n/a		−0.020
	(0.500)				(0.218)

Table 6 (continued)

	Future Goodwill Impairments				Future Profitability
Dep Var =	*GW_IMPAIR*		*SAME_DEAL_IMPAIR*		*ROA_CHANGE*
Variable	Coefficient (p value)	Marginal Effect	Coefficient (p value)	Marginal Effect	Coefficient (p value)
Year fixed effects	Included		Included		Included
N	1007		1007		870
Estimation	Logit		Logit		OLS
Number of goodwill impairments	484		296		
Area under ROC curve	69.30%		70.64%		
Pseudo R^2 / Adj. R^2	8.46%		9.43%		15.15%

Variables are defined in the appendix. We exclude *HOSTILE_DEAL* from the *SAME_DEAL_IMPAIR* regression because there is no variation in *HOSTILE_DEAL* when *SAME_DEAL_IMPAIR* = 1. ***, **, * indicate statistical significance at the 1, 5, and 10% levels (two-sided), respectively. Standard errors are clustered by acquirer. For the logistic regressions, marginal effects represent the changes in the probability of impairment for an interquartile increase for continuous variables or for a change from 0 to 1 for indicator variables, with all other independent variables taking their mean values

find no evidence that restatements are more likely among the empire-building acquisitions (even when we interact *AGENCY_CONFLICTS* with *EXEMPT*; not tabulated) but do find that restatements are more likely when the acquirer has ineffective internal controls (*ACQUIRER_ICMW*). In the second regression, we focus on restatements that are accompanied by a stock price reduction of at least 1% (*RESTATE_NEG_RET*), to ensure the restatements are material to the firm. We find similar results. In the third regression, we focus on restatements that we can tie to the acquisition in our sample. For each restatement that Audit Analytics codes as involving subsidiaries, acquisition accounting, or goodwill reporting, we manually examine the associated SEC filings and code *RESTATE_TARGET_RELATED* as equal to one if the firm specifically mentions the acquisition in describing the restatement and zero otherwise. This approach helps ensure that the restatements are not due to pre-acquisition accounting issues of the stand-alone acquirer or are otherwise unrelated to our acquisition.[25] The coefficient on *EXEMPT* is again positive and significant with a marginal effect 0.7%, which represents 46.2% (= 0.7 / (16 / 1056)) of the unconditional probability of this type of restatement.

Jointly, our three analyses for Hypothesis 2 provide evidence that exemption use is associated with more negative post-acquisition outcomes (more goodwill impairments, reduced profitability, and more restatements), relative to firms that comply with Section 404. Although we cannot state with certainty that compliance with

[25] A drawback of this approach, however, is that restatement disclosures are often insufficiently detailed to unambiguously determine that they relate to a particular acquisition. This likely explains the small number of observations for which *RESTATE_TARGET_RELATED* = 1 (16 observations) and reduces the power of this test.

Table 7 Post-acquisition financial reporting outcomes: financial statement restatements

Dep Var =	*RESTATE*		*RESTATE_NEG_RET*		*RESTATE_TARGET_RELATED*	
Variable	Coefficient (p value)	Marginal Effect	Coefficient (p value)	Marginal Effect	Coefficient (p value)	Marginal Effect
EXEMPT	0.705***	6.0%	0.863***	3.6%	1.089*	0.7%
	(0.001)		(0.007)		(0.084)	
LN(RELATIVE_SIZE)	0.207	1.6%	0.163	0.6%	0.471	0.3%
	(0.185)		(0.489)		(0.177)	
US_PUBLIC_TARGET	−0.427*	−3.6%	−0.530	−2.2%	0.168	0.1%
	(0.076)		(0.109)		(0.806)	
FOREIGN_TARGET	0.018	0.2%	−0.167	−0.7%	−0.208	−0.1%
	(0.947)		(0.631)		(0.800)	
ACQUIRER_BIG4	0.133	1.1%	−0.109	−0.5%	0.903	0.5%
	(0.679)		(0.787)		(0.356)	
ACQUIRER_ICMW	1.712***	14.4%	1.732***	7.2%	1.306*	0.8%
	(0.000)		(0.000)		(0.079)	
ACQUIRER_FREE_CF	1.023	0.9%	−0.155	−0.1%	2.759	0.2%
	(0.228)		(0.884)		(0.242)	
ACQ_ANNOUNCE_RET	−1.020	−0.9%	−1.283	−0.6%	0.597	0.0%
	(0.437)		(0.437)		(0.848)	
AGENCY_CONFLICTS	−0.392	−1.7%	−0.036	−0.1%	0.108	0.0%
	(0.368)		(0.947)		(0.940)	
ACQUIRER_BLOCKHOLDER	0.159	1.3%	0.150	0.6%	−1.254*	−0.8%
	(0.675)		(0.794)		(0.061)	
ACQUIRER_SIZE	−0.065	−1.2%	0.036	0.3%	−0.124	−0.2%
	(0.457)		(0.721)		(0.523)	
ACQUIRER_LEV	0.372	0.8%	0.389	0.4%	0.243	0.0%
	(0.488)		(0.551)		(0.820)	
ACQUIRER_MTB	0.097	0.4%	−0.235	−0.5%	0.663	0.2%
	(0.647)		(0.455)		(0.355)	
ACQUIRER_PRIOR_RET	−0.496**	−2.4%	−0.419*	−1.0%	−0.346	−0.1%
	(0.028)		(0.098)		(0.518)	
DIVERSIFYING_DEAL	−0.293	−2.5%	0.011	0.0%	−0.254	−0.2%
	(0.209)		(0.971)		(0.676)	
Year fixed effects	Included		Included		Excluded	
N	1056		1056		1056	
Estimation	Logit		Logit		Logit	
Number of restatements	125		63		16	
Area under ROC curve	71.37%		72.91%		83.46%	
Pseudo R^2	10.55%		10.22%		17.86%	

Variables are defined in the appendix. ***, **, * indicate statistical significance at the 1, 5, and 10% levels (two-sided), respectively. Standard errors are clustered by acquirer. Marginal effects represent the changes in the probability of restatement for an interquartile increase for continuous variables or for a change from 0 to 1 for indicator variables, with all other independent variables taking their mean values

Table 8 Stock market reactions to the exemption disclosure in acquirers' 10-K filings

	All Deals	Deals where 1st, 2nd, and 3rd Quarter Section 302 report did not pre-disclose intent to exempt acquisition	Deals where 1st, 2nd, or 3rd Quarter Section 302 report potentially disclosed intent to exempt acquisition
Variable	Coefficient (p value)	Coefficient (p value)	Coefficient (p value)
EXEMPT	−0.0077*	−0.0081*	−0.0042
	(0.053)	(0.065)	(0.651)
LN(RELATIVE_SIZE)	0.0027	0.0044	0.0003
	(0.411)	(0.246)	(0.967)
ACQUIRER_ICMW	0.0087	0.0042	0.0050
	(0.310)	(0.699)	(0.750)
ACQUIRER_SIZE	−0.0012	−0.0021	0.0028
	(0.344)	(0.151)	(0.266)
ΔNI	0.0299*	0.0221	0.0434
	(0.080)	(0.260)	(0.289)
Year fixed effects	Included	Included	Included
N	1001	777	224
Adj. R^2	1.04%	0.62%	1.08%

This table reports the results of OLS regressions with *FILING_RET* as the dependent variable. Variables are defined in the appendix. We exclude observations where the 10-K filing is more than 90 days after the fiscal year end. ***, **, * indicate statistical significance at the 1, 5, and 10% levels (two-sided), respectively. Standard errors are clustered by acquirer

Section 404 would have curbed these outcomes, our results are generally consistent with this notion.

4.3 Hypothesis 3

Our final hypothesis relates to how exemption use is reflected in stock prices. Given our previous evidence that compliance with Section 404 is associated with post-acquisition benefits, we expect investors to react negatively when acquirers announce they are electing the exemption. Stock prices reflect investors' expectations of *net* benefits, however, and Section 404 compliance also entails significant costs, potentially offsetting some or all of the benefits.

In Table 8, we examine short-window (five-day) abnormal returns around 10-K filings, which is typically when the exemption election is first disclosed (*FILING_RET*).[26] Because the 10-K filings occur long after the deals themselves have been known to investors, we expect returns around the filing dates to capture investors' assessments of the exemption choice, as opposed to the underlying deal. The first regression in Table 8 focuses on the full sample. We find that filing returns are more

[26] To avoid stale information in long-delayed filings, we require the 10-K filings to occur within 90 days of fiscal year-end for these tests.

Table 9 Future abnormal stock returns following the exemption disclosure in acquirer's 10-K filings

Dep Var =	*FUTURE_BHAR_6MONTHS*	*FUTURE_BHAR_1YEAR*	*FUTURE_BHAR_2YEAR*	*FUTURE_BHAR_3YEAR*
Variable	Coefficient (p value)	Coefficient (p value)	Coefficient (p value)	Coefficient (p value)
EXEMPT	−0.025	−0.051	−0.088*	−0.122**
	(0.231)	(0.103)	(0.067)	(0.039)
LN(RELATIVE_SIZE)	−0.006	−0.029	−0.007	−0.006
	(0.737)	(0.291)	(0.859)	(0.896)
US_PUBLIC_TARGET	0.040	0.079*	0.135**	0.106
	(0.121)	(0.051)	(0.022)	(0.143)
FOREIGN_TARGET	0.025	0.088*	0.169**	0.154*
	(0.436)	(0.066)	(0.020)	(0.065)
ACQUIRER_BIG4	0.044	0.091**	0.146**	0.216***
	(0.188)	(0.048)	(0.027)	(0.006)
ACQUIRER_ICMW	−0.064	−0.059	−0.090	−0.180*
	(0.143)	(0.383)	(0.401)	(0.068)
ACQUIRER_FREE_CF	0.066	0.206*	0.238	0.315
	(0.516)	(0.080)	(0.182)	(0.125)
ACQ_ANNOUNCE_RET	−0.083	−0.059	−0.157	−0.327
	(0.513)	(0.758)	(0.548)	(0.299)
AGENCY_CONFLICTS	−0.055	−0.019	0.007	0.067
	(0.213)	(0.780)	(0.948)	(0.590)
ACQUIRER_BLOCKHOLDER	0.012	0.029	0.068	0.087
	(0.750)	(0.610)	(0.422)	(0.344)
ACQUIRER_SIZE	−0.023**	−0.047***	−0.057***	−0.053**
	(0.014)	(0.001)	(0.005)	(0.014)
ACQUIRER_LEV	0.020	0.112	0.150	0.069
	(0.721)	(0.145)	(0.214)	(0.635)
ACQUIRER_MTB	−0.027	−0.011	0.033	0.082
	(0.300)	(0.780)	(0.512)	(0.152)
ACQUIRER_PRIOR_RET	0.001	0.047	0.046	−0.021
	(0.962)	(0.187)	(0.358)	(0.680)
ALL_STOCK	−0.007	0.003	0.029	−0.072
	(0.912)	(0.977)	(0.838)	(0.640)
ALL_CASH	0.002	−0.018	−0.027	−0.080
	(0.916)	(0.608)	(0.606)	(0.198)
*US_PUBLIC_TARGET*ALL_STOCK*	−0.012	−0.049	−0.182	−0.035
	(0.858)	(0.621)	(0.237)	(0.836)
DIVERSIFYING_DEAL	−0.030	−0.017	−0.008	0.036
	(0.174)	(0.606)	(0.874)	(0.532)
HOSTILE_DEAL	−0.157*	−0.236	−0.496***	−0.128
	(0.053)	(0.124)	(0.003)	(0.490)
Year fixed effects	Included	Included	Included	Included
N	956	956	956	956
Estimation	OLS	OLS	OLS	OLS
Adj. R^2	3.39%	4.25%	3.74%	1.89%

Variables are defined in the appendix. ***, **, * indicate statistical significance at the 1, 5, and 10% levels (two-sided), respectively. Standard errors are clustered by acquirer

negative for firms electing the exemption (coefficient on *EXEMPT* is −0.0077), suggesting that investors view exemption as a net cost to the firm.

Given the large amount of information in 10-K filings, we conduct several additional analyses to help validate that we are capturing investor responses to the exemption election. First, although we use the exemption disclosure in the 10-K as our core window of the release of the news of exemption, the election decision can be disclosed in a prior 10-Q as part of the Section 302 report. To isolate a sample where the exemption is most likely to be news at the time of the 10-K filing, we eliminate acquirers that Audit Analytics identifies as having disclosed M&A-related items in the Section 302 report of a 10-Q filing, a subset of which is the explicit disclosure that the firm plans to exempt the newly acquired business from Section 404.[27] The second regression in Table 8 focuses on the acquirers that do not disclose M&A-related items in prior Section 302 reports. Consistent with the full sample, we again find that returns around the 10-K filing are more negative for firms electing the exemption from Section 404 (coefficient on *EXEMPT* = −0.0081). The third regression focuses on the acquirers that disclose M&A-related items in prior Section 302 reports. For this group, there is no statistical difference in filing returns for firms electing the exemption versus those that comply, consistent with investors already incorporating the exemption, and supporting our inference that the 10-K filing return in Column 2 does reflect, at least in part, investors' assessments of the exemption.[28]

Finally, in untabulated analyses, we examine the market reactions to the first 10-Q filing where acquirers file a Section 302 report that could feasibly disclose their exemption election. For the 223 deals with data available to calculate abnormal returns, the mean (median) 10-Q filing return is −0.013 (−0.016) and significant at $p < 0.05$.[29] This provides further evidence that investors react negatively to managers announcing the exemption of targets from internal control audit compliance. Thus, based on this combined evidence, we conclude that investors view exemption as a net cost to the firm. This is consistent with our results for Hypothesis 2 that exemption is associated with negative operational and financial reporting outcomes as well as evidence in concurrent work by Carnes et al. (2018).

In Table 9, we examine whether the initial price reaction is complete by examining future abnormal stock returns. We consider future returns over various measurement windows, ranging from 6 months to 3 years, each beginning the month after the exemption disclosure in the 10-K filing. We calculate abnormal returns as the acquirer's buy-and-hold return less the average return over the same period for non-acquiring firms in the same industry and size quintile as the acquirer. We find that exempt acquisitions are associated with lower future abnormal returns for each measurement window, though this result is not statistically significant for the six-month or one-year windows. For the two- and three-year windows, we find economically and statistically significant evidence that exempt acquisitions are

[27] The variable we use is "DC - Acquisition, etc. - integration and/or challenges noted" and consists of instances in which a company is stating that it has acquired another entity and considers the integration of that entity into its existing control system to be material enough to note. Examples where this value is equal to one include that the company has excluded the newly acquired business from its 302 report, it plans to exclude the newly acquired business from the 404 report, or that it is having challenges with integrating or getting information out of a newly acquired company.

[28] In untabulated analyses, we control for earnings surprises and allow these earnings surprises to vary with whether the earnings announcement coincided with the 10-K filing as well as whether the earnings surprise was negative. Results are not affected by these additional controls.

[29] Filing returns around 10-Q filings are measured analogously to our main measure around 10-K filings (*FILING_RET*).

associated with lower future abnormal returns of −8.8 and − 12.2%, respectively. The pattern in Table 9 of these results getting stronger across the measurement windows is consistent with exemption use being associated with integration issues that manifest over time, similar to our results for goodwill impairments and future profitability.

Taken together, the results in Tables 8 and 9 provide evidence that investors view exemption elections negatively, on average, but the initial reactions tend to be incomplete, and the stocks of exemption firms continue to underperform over the 3 years after the exemption announcement, relative to acquirers that comply with Section 404.

5 Conclusion

We examine managers' Section 404 exemption elections for newly acquired businesses. Size of the acquisition plays a large role in smaller deals, but we find that the main determinant of the election within firms undertaking large deals is the timing of the acquisition, consistent with compliance being most costly—and, in some instances, virtually infeasible—when the deal occurs late in the year. We find evidence that managers elect the exemption in response to agency conflicts to avoid scrutiny of their acquisitions (e.g., empire-building), but this appears to play a minor role in the decision, increasing the explanatory power of the model by about one quarter of a percent. In general, we find several negative consequences associated with exemption, either because the internal control assessment and audit process adds both operational and financial reporting value or because the choice is a signal about the quality of the acquisition. Firms that elect the exemption are more likely to have goodwill impairments and financial statement restatements, and to generate lower future earnings. Consistent with investors understanding that exemption predicts poorer future performance, we find negative stock returns at the time of the exemption disclosure among firms electing the exemption. This price response, however, appears to be incomplete, as firms electing the exemption tend to continue underperforming over the subsequent 3 years. In general, the results related to both future return-on-assets and stock returns provide evidence that there are net costs to exemption (or, alternatively, net benefits to internal control audit compliance). Despite the evidence of benefits to compliance, we also find evidence that the PCAOB's recent heightened scrutiny of internal control audits is associated with an increase in exemption use over time, suggesting this may be an unintended consequence of their increased emphasis on internal control audits.

Appendix

Table 10 Variable Definitions

Main Variable of Interest	
EXEMPT	= 1 if acquirer exempts an acquired business from the annual Section 404 internal control report, 0 otherwise. (Source: Audit Analytics)
Costs and Benefits of Compliance Variables	
QTR1_DEAL	= 1 if acquisition is completed in the first quarter of the acquirer's fiscal year, 0 otherwise. (Sources: SDC, Compustat)
QTR4_DEAL	= 1 if acquisition is completed in the fourth quarter of the acquirer's fiscal year, 0 otherwise. (Sources: SDC, Compustat)
LN(RELATIVE_SIZE)	= Natural logarithm of the ratio of transaction value to acquirer's market value of common equity 50 calendar days before acquisition announcement. (Sources: SDC, CRSP)
US_PUBLIC_TARGET	= 1 if target is a U.S. publicly held firm, 0 otherwise. For subsidiaries, we use their parent firm's public status. (Source: SDC)
TARGET_404b	= 1 if target has a Section 404(b) internal control audit report for year prior to acquisition completion, 0 otherwise. For subsidiaries, we use their parent firm's internal control report. Only available for U.S. public targets. (Source: Audit Analytics)
TARGET_ICMW	= 1 if target's most recent Section 302 or 404(a) internal control report prior to acquisition completion indicates a material weakness, 0 otherwise. For subsidiaries, we use their parent firm's internal control report. Only available for U.S. public targets. (Source: Audit Analytics)
SHARED_AUDITOR	= 1 if target and acquirer use the same audit firm in their most recent fiscal years prior to acquisition completion, 0 otherwise. For subsidiaries, we use their parent firm's auditor. Only available for U.S. public targets. (Source: Compustat)
TARGET_BIG4	= 1 if target uses a Big Four audit firm for most recent fiscal year prior to acquisition completion, 0 otherwise. For subsidiaries, we use their parent firm's auditor. Only available for U.S. public targets. (Source: Compustat)
FOREIGN_TARGET	= 1 if a public target is not traded on a U.S. exchange or a private target is not located in the United States, 0 otherwise. For subsidiaries we use their parent firm's status. (Source: SDC)
ACQUIRER_BIG4	= 1 if acquirer uses a Big Four audit firm for the fiscal year the acquisition is completed, 0 otherwise. (Source: Compustat)
ACQUIRER_ICMW	= 1 if acquirer's Section 404(b) internal control report indicates a material weakness for fiscal year in which acquisition is completed, 0 otherwise. (Source: Audit Analytics)
PCAOB_IC_SCRUTINY	= Lagged annual mean number of internal control audits reported by the PCAOB as deficient in its inspections of Big Four audit firms. (Source: Table 1, column 3 of DeFond and Lennox (2017). Year 2004 data is not reported by DeFond and Lennox (2017); we obtain it from the PCAOB inspection reports, available at https://pcaobus.org.)
TIME_TREND	= Fiscal year of the acquisition completion minus 2004.

Table 10 (continued)

Agency Conflict Variables	
ACQUIRER_FREE_CF	= Acquirer's free cash flow for fiscal year prior to acquisition announcement date, where free cash flow is operating cash flows less capital expenditures, scaled by lagged total assets. (Source: Compustat)
ACQ_ANNOUNCE_RET	= Acquirer's abnormal buy-and-hold stock return over days −2 to +2, relative to the acquisition announcement date. Abnormal returns are based on the market model using the CRSP value-weighted index, estimated over days −200 to −30. (Source: CRSP)
ENTRENCHED	= 1 if acquirer's E-index is greater than 3 and there is a classified board in the fiscal year prior to acquisition announcement date, 0 otherwise. E-index is the entrenchment index from Bebchuk et al. (2009) based on six provisions: classified boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments. (Source: Institutional Shareholder Services)
TARGET_PROB_ICMW	= likelihood of target having an internal control material weakness in the most recent fiscal year prior to acquisition completion, based on the prediction model of Ge et al. (2017) (see their eq. 2). (Sources: Audit Analytics, Compustat, Thomson Reuters)
SYNERGIES	= Combined acquisition announcement return of the acquirer and target, weighted by their pre-announcement market values. Target's announcement return is calculated in the same manner as *ACQ_ANNOUNCE_RET*. (Source: CRSP)
AGENCY_CONFLICTS	= Average of five indicators of potential agency conflicts and incentives to avoid outside scrutiny of acquisitions: (1) *ACQUIRER_FREE_CF* in the highest tercile of the sample; (2) *ACQ_ANNOUNCE_RET* in the lowest tercile of the sample; (3) *ENTRENCHED* = 1; (4) *TARGET_PROB_ICMW* in the highest tercile of the sample; and (5) *SYNERGIES* in the lowest tercile of the sample. For observations where data is not available for all five of the indicators, we use the average of those available.
Acquirer and Deal Characteristics	
LAST_DEAL_EXEMPT	= 1 if acquirer elected the Section 404 exemption for its most recent prior acquisition with relative transaction size greater than 20%, 0 otherwise. Set to 0 for acquirers without prior acquisitions during the sample period. (Source: Audit Analytics, SDC)
ALL_STOCK	= 1 if acquisition consideration is all stock, 0 otherwise. (Source: SDC)
ALL_CASH	= 1 if acquisition consideration is all cash, 0 otherwise. (Source: SDC)
DIVERSIFYING_DEAL	= 1 if target and acquirer have different two-digit SIC codes, 0 otherwise. (Source: SDC)
HOSTILE_DEAL	= 1 if SDC codes the acquirer as hostile, 0 otherwise. (Source: SDC)
ACQUIRER_SIZE	= Natural logarithm of acquirer's market value of common equity at the end of fiscal year in which acquisition is completed. (Source: Compustat)
ACQUIRER_LEV	= Ratio of acquirer's total liabilities to total assets at the end of fiscal year in which acquisition is completed. (Source: Compustat)
ACQUIRER_MTB	= Acquirer's market-to-book value of assets ratio at the end of fiscal year in which acquisition is completed, where the ratio is calculated as the sum of market value of common equity and total liabilities divided by total assets. (Source: Compustat)
ACQUIRER_BLOCKHOLDER	= 1 if acquirer has at least one institutional shareholder with an ownership position of at least 5% at the end of the fiscal year in which the acquisition is completed, 0 otherwise. (Source: Thomson Reuters)
ACQUIRER_PRIOR_RET	= Acquirer's raw stock return over the 12-month period ending with the month before the acquisition completion date. (Source: CRSP)

Table 10 (continued)

ΔNI	= Change in acquirer's net income from year *t*-1 to year *t*, scaled by total assets from year *t*-1, where year *t* is the fiscal year the acquisition is completed. (Source: Compustat)
Post-Acquisition Outcome Variables	
GW_IMPAIR	= 1 if acquirer records a goodwill impairment in fiscal years *t* + 1 to *t* + 5, where *t* is the year acquisition is completed, 0 otherwise. We identify impairments based on whether either Compustat items GDWLIP or GDWLIA are less than zero. We require acquirers to have data available in at least fiscal year *t* + 1 to calculate this variable. (Source: Compustat)
SAME_DEAL_ IMPAIR	= 1 if *GW_IMPAIR* = 1 and the impairment can be tied to the acquisition in our sample, 0 otherwise. For all observations with *GW_IMPAIR* = 1, we manually review 10-K filings and consider the impairment related if either the firm explicitly discloses that the impairment was related to goodwill from the acquisition or the impairment was charged to the reporting unit for which the goodwill from the acquisition was originally allocated. (Sources: Compustat, SEC filings)
ROA_CHANGE	= Change in acquirer's three-year average industry-adjusted operating income before depreciation scaled by lagged total assets surrounding the acquisition completion. The industry adjustment is calculated by subtracting the annual industry median value from the acquirer's two-digit SIC industry. We measure the post-acquisition (pre-acquisition) period over years *t* + 1, *t* + 2, and *t* + 3 (*t*-1, *t*-2, and *t*-3), where year *t* is the fiscal year the acquisition is completed. If firms do not have available data to calculate the change in the three-year average before and after acquisitions, then we use the change in the two-year average over years *t* + 1 and *t* + 2 (*t*-1 and *t*-2) to calculate this variable. (Source: Compustat)
RESTATE	= 1 if acquirer later restates their consolidated financial statements for the fiscal year in which the acquisition is completed, 0 otherwise. (Source: Audit Analytics)
RESTATE_NEG_RET	= 1 if *RESTATE* = 1 and the restatement announcement return (day −2 to +2) is less than −1%, 0 otherwise. (Sources: Audit Analytics, CRSP)
RESTATE_TARGET_ RELATED	= 1 if *RESTATE* = 1 and the firm mentions in its related SEC filings that the restatement is related to the acquisition, 0 otherwise. For all restatements that Audit Analytics codes as involving acquisition accounting, goodwill, or subsidiary issues, we manually read the restatement announcements in the SEC filings to determine whether it is related to the acquired business in our sample. (Sources: Audit Analytics, SEC filings)
FILING_RET	= Acquirer's abnormal buy-and-hold stock return over days −2 to +2, relative to the 10-K filing date. Abnormal returns are based on the market model using the CRSP value-weighted index, estimated over days −200 to −30. (Sources: CRSP, Audit Analytics)
FUTURE_BHAR	= Acquirer's buy-and-hold return beginning in the month after the event window for the 10-K filing that includes the exemption choice, less the average return over the same period for a benchmark portfolio of non-acquisition firms in the same two-digit SIC industry and size-quintile as the acquirer. Non-acquisition firms are firms that do not make an acquisition within three years before and after the beginning of the return holding period. Size quintiles are computed at the beginning of the holding period using all firms in CRSP with available data. If there are no non-acquisition firms in the same industry and size quintile as an acquirer we use the average return for the industry. For firms that delist, we use the delisting return for the delisting period and assume the delisting proceeds are reinvested in the benchmark portfolio for the remainder of the holding period. We use holding periods of six, 12, 24, and 36 months to create different versions of this variable, and we denote them by the suffixes *_6MONTHS*, *_1YEAR*, *_2YEAR*, and *_3YEAR*, respectively. (Sources: SDC, CRSP)

References

Acito, A., Hogan, C., & Mergenthaler, R. (2018). The effects of PCAOB inspections on auditor-client relationships. *The Accounting Review, 93*(2), 1–35.

Alexander, C., Bauguess, S., Bernile, G., Lee, Y.-H., & Marietta-Westberg, J. (2013). Economic effects of SOX section 404 compliance: A corporate insider perspective. *Journal of Accounting and Economics, 56*(2–3), 267–290.

Ashbaugh-Skaife, H., Collins, D., & Kinney, W. (2007). The discovery and reporting of internal control deficiencies prior to SOX-mandated audits. *Journal of Accounting and Economics, 44*(1–2), 166–192.

Ashbaugh-Skaife, H., Collins, D., Kinney, W., & LaFond, R. (2008). The effect of SOX internal control deficiencies and their remediation on accrual quality. *The Accounting Review, 83*(1), 217–250.

Barth, M., Landsman, W., & Taylor, D. (2017). The JOBS act and information uncertainty in IPO firms. *The Accounting Review, 92*(6), 25–47.

Bebchuk, L., Cohen, A., & Ferrell, A. (2009). What matters in corporate governance? *Review of Financial Studies, 22*(2), 783–827.

Bedard, J., & Graham, L. (2011). Detection and severity classifications of Sarbanes-Oxley section 404 internal control deficiencies. *The Accounting Review, 86*(3), 825–855.

Bruner, R. (2004). *Applied Mergers & Acquisitions*. New Jersey: Wiley.

Carnes, R., Christensen, D., & Lamoreaux, P. (2018). Investor demand for internal control audits of large U.S. companies: evidence from a regulatory exemption for M&A transactions. *The Accounting Review*, forthcoming.

Chen, C.-W., Collins, D., Kravet, T., & Mergenthaler, R. (2018). Financial statement comparability and the efficiency of acquisition decisions. *Contemporary Accounting Research, 35*(1), 164–202.

Cheng, M., Dhaliwal, D., & Zhang, Y. (2013). Does investment efficiency improve after the disclosure of material weaknesses in internal control over financial reporting? *Journal of Accounting and Economics, 56*(1), 1–18.

Cheng, Q., Goh, B., & Kim, J. (2018). Internal control and operational efficiency. *Contemporary Accounting Research*, *35*(2), 1102–1139.

Coates, J., & Srinivasan, S. (2014). SOX after ten year: A multidisciplinary review. *Accounting Horizons, 28*(3), 627–671.

DeFond, M., & Lennox, C. (2017). Do PCAOB inspections improve the quality of internal control audits? *Journal of Accounting Research, 55*(3), 591–627.

Deloitte Development LLC (2004). *Sarbanes-Oxley Section 404: 10 Threats to Compliance*. https://www2.deloitte.com/content/dam/Deloitte/us/Documents/audit/us-aers-assur-ten-threats-sep2004.pdf

Doyle, J., Ge, W., & McVay, S. (2007a). Accruals quality and internal control over financial reporting. *The Accounting Review, 82*(5), 1141–1170.

Doyle, J., Ge, W., & McVay, S. (2007b). Determinants of weaknesses in internal control over financial reporting. *Journal of Accounting and Economics, 44*(1–2), 193–223.

Engel, E., Hayes, R., & Wang, X. (2007). The Sarbanes–Oxley act and firms' going-private decisions. *Journal of Accounting and Economics, 44*(1–2), 116–145.

Feng, M., Li, C., & McVay, S. (2009). Internal control and management guidance. *Journal of Accounting and Economics, 48*(2–3), 190–209.

Feng, M., Li, C., McVay, S., & Skaife, H. (2015). Does ineffective internal control over financial reporting affect a firm's operations? Evidence from firms' inventory management. *The Accounting Review, 90*(2), 529–557.

Financial Executives Research Foundation (FERF). (2015). 2015 Audit Fee Report. https://www.financialexecutives.org/ferf/download/2015%20Final/2015-018.pdf

Gao, F., Wu, J., & Zimmerman, J. (2009). Unintended consequences of granting small firms exemptions from securities regulation: Evidence from the Sarbanes-Oxley act. *Journal of Accounting Research, 47*(2), 459–506.

Ge, W., Koester, A., & McVay, S. (2017). Costs and benefits of Sarbanes-Oxley section 404(b) exemption: Evidence from small firms' internal control disclosures. *Journal of Accounting and Economics, 63*(2–3), 358–384.

Government Accountability Office (GAO). (2013). *Internal controls: SEC should consider requiring companies to disclose whether they obtained an auditor attestation*. Washington DC: United States Government.

Grinstein, Y., & Hribar, P. (2004). CEO compensation and incentives: Evidence from M&a bonuses. *Journal of Financial Economics, 73*(1), 119–143.

Harford, J. (1999). Corporate cash reserves and acquisitions. *Journal of Finance, 54*(6), 1969–1997.

Harford, J., & Li, K. (2007). Decoupling CEO wealth and firm performance: The case of acquiring CEOs. *Journal of Finance, 62*(2), 917–949.

Harford, J., & Schonlau, R. (2013). Does the director labor market offer ex post settling-up for CEOs? The case of acquisitions. *Journal of Financial Economics, 110*(1), 18–36.

Harford, J., Humphery-Jenner, M., & Powell, R. (2012). The sources of value destruction in acquisitions by entrenched managers. *Journal of Financial Economics, 106*(2), 247–261.

Heller, M. (2015). SOX compliance is getting more costly. *CFO* (May 20).

Hochberg, Y., Sapienza, P., & Vissing-Jorgensen, A. (2009). A lobbying approach to evaluating the Sarbanes-Oxley act of 2002. *Journal of Accounting Research, 47*(2), 519–583.

Hogan, C., & Wilkins, M. (2008). Evidence on the audit risk model: Do auditors increase audit fees in the presence of internal control deficiencies? *Contemporary Accounting Research, 25*(1), 219–242.

Iliev, P. (2010). The effect of SOX section 404: Costs, earnings quality, and stock prices. *Journal of Finance, 65*(3), 1163–1196.

Jensen, M. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review, 76*(2), 323–329.

Kinney, W., & Shepardson, M. (2011). Do control effectiveness disclosures require SOX 404(b) internal control audits? A natural experiment with small U.S. public companies. *Journal of Accounting Research, 49*(2), 413–448.

Lang, L., Stulz, R., & Walkling, R. (1991). A test of the free cash flow hypothesis: The case of bidder returns. *Journal of Financial Economics, 29*(2), 315–335.

Leuz, C., Triantis, A., & Wang, T. (2008). Why do firms go dark? Causes and economic consequences of voluntary SEC deregistrations. *Journal of Accounting and Economics, 45*(2–3), 181–208.

Malmendier, U., & Tate, G. (2008). Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics, 89*(1), 20–43.

Morck, R., Shleifer, A., & Vishny, R. (1990). Do managerial objectives drive bad acquisitions? *Journal of Finance, 45*(1), 31–48.

PricewaterhouseCoopers LLP. (2014). *Business combinations and noncontrolling interests: application of the U.S. GAAP and IFRS standards*. https://www.pwc.com/us/en/cfodirect/assets/pdf/accounting-guides/pwc-business-combinations-noncontrolling-interests.pdf

Protiviti. (2015). *SOX compliance: changes abound amid drive for stability and long-term value*. https://www.protiviti.com/sites/default/files/united_states/insights/2015-sox-compliance-survey-protiviti_2.pdf

Public Company Accounting Oversight Board (PCAOB). (2007). *An audit of internal control over financial reporting that is integrated with an audit of financial statements and related independence rule and conforming amendments*. PCAOB Release No. 2007-005A, June 12.

Public Company Accounting Oversight Board (PCAOB). (2013). *Considerations for audits of internal control over financial reporting*. Staff Audit Practice Alert No. 11, October 23.

Rapoport, M. (2017). Companies seek to soften auditor rule. *Wall Street Journal* (February 15): B6.

Schroeder, J., & Shepardson, M. (2016). Do SOX 404 control audits and management assessments improve overall internal control system quality? *The Accounting Review, 91*(5), 1513–1541.

Skaife, H., & Wangerin, D. (2013). Target financial reporting quality and M&a deals that go bust. *Contemporary Accounting Research, 30*(2), 719–749.

Wangerin, D. (2017). M&A due diligence, post-acquisition performance, and financial reporting for business combinations. Working paper. Available on SSRN: http://papers.ssrn.com/abstract=2118836.

Zhang, I. (2007). Economic consequences of the Sarbanes-Oxley act of 2002. *Journal of Accounting and Economics, 44*(1–2), 74–115.