

Small and large firm regulatory costs: the case of the Sarbanes-Oxley Act

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Abstract

Purpose – As a result of scandals concerning major financial crime in the early twenty-first century, including accounting and auditing fraud and inappropriate behavior by directors on the boards of US corporations, Congress hurriedly enacted the Sarbanes-Oxley Act (SOX) in 2002. SOX's major purpose was to restore investor confidence in America's securities markets. Small firms argued that their cost of compliance was very heavy and that their burden was greater than for larger firms, especially the costs related to section 404 of the Act, which dealt with new requirements to obtain independent audit opinions. The authors found no empirical research that supports or denies these claims. Subsequently, in 2007, the Securities and Exchange Commission reduced the Act's new audit requirements for small companies. This paper aims to examine audit fees for large and small firms.

Design/methodology/approach – The study examines actual audit fee data to investigate the increased costs paid by publicly traded companies to independent audit firms for their services due to Sarbanes-Oxley. The authors use univariate and multivariate statistical methods to compare increases in audit fees paid by samples of 150 large firms and 150 small firms.

Findings – The study finds that both small and large firms incurred increased audit fees due to compliance with Sarbanes-Oxley, and that small companies did incur larger increases in their cost burden.

Originality/value – The study uses actual audit fee data reported to the Securities and Exchange Commission and controls for other factors that determine audit fees in reaching its conclusions.

Keywords Sarbanes-Oxley, Corporate governance, Regulation, Operating costs

Paper type Research paper

Introduction

Recently, highly publicized corporate scandals in the USA such as those at Enron, Worldcom, and Tyco caused investors to lose trust in American financial markets. In an effort to restore that trust, the US Congress enacted the Public Company Accounting Reform and Investor Protection Act of 2002, better known as the Sarbanes-Oxley Act (SOX). The Act, which is considered by many to be the most sweeping since the Securities and Exchange Acts of 1933 and 1934, has focused on executive responsibility for internal controls, accounting reports, auditing independence, and the independence and structure of boards of directors and their committees (Millar and Yeager, 2007). As is normally the case with the imposition of new regulation, the companies affected complained that the cost of implementation far exceeded its benefits.

The Act has a total of 18 separate sections that serve multiple regulatory functions in an overall attempt to restore investor confidence by reinforcing corporate accountability as well as improving the accuracy and reliability of information provided to investors (Jain *et al.*, 2006). Some of the more notable sections of the Act include sections 101, 301, 302, and 906. These sections:

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- created a non-government board to oversee the auditors of publicly traded firms;
- mandated firm audit committee members have association with the firm *only* as board directors and that they shall be solely responsible for setting up a system for dealing with complaints about a company's accounting or auditing methods and controls;
- made the audit committee responsible for the appointment and compensation of external audit firms; and
- required CEOs and CFOs to personally sign each annual and quarterly financial report released by their companies verifying that the information in those statements is accurate to the best of their knowledge, thereby increasing the accountability of management in relation to public information.

Enactment of regulation in a crisis environment is often over-zealous and requires revisiting at a later point after the need for amendments is revealed. This could be the case for SOX. The Act has received much criticism before and since its passage in the summer of 2002. One of the most controversial requirements is found in section 404, which required that each annual report contain the auditor's opinion on whether management financial controls are working and a separate auditor's opinion that evaluates the quality of the process used by management for assessing and maintaining proper internal controls and procedures for financial reporting. As is the case with most regulation, those parties affected by SOX argued that the cost of compliance exceeded its benefits. In particular, small firms argued that their cost of compliance was very heavy and that their burden was greater than for larger firms, especially the costs related to section 404. They argued that a "one-size-fits-all" approach to both large and small firms was not appropriate and that revisions to the act were needed to appropriately address small company requirements. We are not aware of empirical research that uses actual cost data or controls for other factors that influence audit fees to support or deny such claims. However, in 2007 the Securities and Exchange Commission approved changes to streamline the new auditing requirements for small firms by having the audit focus on areas most prone to fraud instead of reviewing sometimes hundreds of transaction processes and deleted the requirement for auditor attestation as to the quality of management's process for maintaining the system of internal controls. In this study, we examine actual costs effects on publicly traded companies caused largely by section 404. An excerpt section 404 of the act follows.

Sarbanes-Oxley Act of 2002

SEC. 404. MANAGEMENT < NOTE: 15 USC 7262. > > ASSESSMENT OF INTERNAL CONTROLS.

(a) Rules Required. – The Commission shall prescribe rules requiring each annual report required by section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) to contain an internal control report, which shall –

(1) state the responsibility of management for establishing and maintaining an adequate internal control structure and procedures for financial reporting; and

(2) contain an assessment, as of the end of the most recent fiscal year of the issuer, of the effectiveness of the internal control structure and procedures of the issuer for financial reporting.

(b) Internal Control Evaluation and Reporting. – With respect to the Internal control assessment required by subsection (a), each registered public accounting firm that prepares or issues the audit report for the issuer shall attest to, and report on, the assessment made by the management of the issuer. An attestation made under this subsection shall be made in accordance with standards for attestation engagements issued or adopted by the Board. Any such attestation shall not be the subject of a separate engagement.

The following is excerpted from the 2008 Annual Report to Stockholders of Wal-Mart Stores, Inc. in the auditor's (Ernst & Young, LLP) attestation and illustrates one impact of section 404 on auditor responsibility.

We also have audited, in accordance with the standards of the *Public Company Accounting Oversight Board* (United States), the effectiveness of Wal-Mart stores, Inc.'s internal control over financial reporting as of January 31, 2008, based on criteria, established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the



Treadway Commission and our report dated March 26, 2008 expressed an unqualified opinion thereon.

In addition to the above, a separate Report of Independent Registered Public Accounting Firm on Internal Control over Financial Reporting with an opinion is issued by the independent auditor and is also a part of the annual report. As a result of these new requirements, external audit firms are commanding greater audit fees from publicly traded companies.

The purpose of this study is to examine one of the costs of implementing the Sarbanes-Oxley Act for publicly traded companies. In particular, we examine the increased fees that are paid to company external auditors as listed in companies' Schedule 14A filings with the Securities and Exchange Commission. While increases in expenses due to the Act are not limited to additional audit fees, they are the focus of this study because they are most directly attributable to the Act. More specifically, we empirically test whether the Sarbanes-Oxley Act has significantly increased publicly traded companies' expenses in the form of increased audit fees and whether the effect is different between large and small companies.

Our analysis verifies that after controlling for intervening variables that affect audit fees, both small and large companies experienced statistically significant increases in external audit fees after SOX compliance deadlines. Furthermore, when the audit fees paid (as a percentage of revenues) by small companies are compared with those paid by large companies before and after the SOX compliance deadlines, the increase in fees for small companies is statistically larger than those paid by large firms.

The contribution of this study is that it offers empirical evidence that small firms incurred a larger increase in audit fee expense than larger firms, which could significantly harm the competitiveness of those smaller companies. While previous articles and research have suggested that small firms are more adversely impacted by compliance cost, they offer little more than survey responses from companies as evidence. This empirically based study utilizes data reported to government agencies and statistical methods to control for other potentially intervening variables to more directly reach its conclusions.

The rest of the paper proceeds as follows: section two discusses previous literature and develops the experimental hypotheses. section three contains the sample selection, variable definitions, and study methodology. Section four analyzes the empirical results. Section five discusses implications of the results, and suggests possibilities for future research.

Literature review and hypotheses development

Compliance with SOX regulations comes with both intended and unintended benefits and costs. Previous literature discusses both. Rezaee and Jain (2005) conclude that the benefits of the Act outweigh the costs based on abnormal positive market returns leading up to the passage of the Act. Chhaochharia and Grinstein (2007) find that the Act increased the value of large firms.

Most of the prior literature on the subject focuses on costs imposed on companies in their compliance with the law. The costs reported in the literature are wide in scope. Testa (2005) reports that companies spent more to hire employees that worked on compliance with the Act. Another indicated that the Act would impose extra litigation costs and an increase in directors and officers insurance premiums for firms (Carney, 2006). Levinsohn (2004) concludes that companies incurred extra costs for consulting and software needed for compliance. Many papers discuss large increases in firms' auditing fees paid to external audit firms as a result of their SOX-related needs (Koehn and Del Vecchio, 2004; Swartz, 2004; Cocheo, 2005). Volcker and Levitt (2004) suggest that executives are forced to spend more time dealing with regulatory issues rather than focusing on the performance of their companies, which could ultimately affect the value of their firms. D'Aquila (2004) discusses



the increases in the number of both external and internal man-hours spent on compliance with the Act.

In this study the focus is on changes in audit fees. It has been argued that a greater cost burden has fallen on small companies. Kamar *et al.* (2005) investigate the propensity of American firms to go private through acquisition by a private acquirer after SOX. They conclude that SOX induced small but not large firms to exit the public capital market during the first year of enactment, implying that compliance cost to small firms was greater than for large firms. Surveys indicate that almost half of all small companies report that Sarbanes-Oxley has made it more difficult for them to conduct business. Survey respondents indicate that in order to comply with the Act, small companies reduced their marketing and research budgets as well as the number of employees (Swartz, 2006). Also, respondents indicated fewer small companies had internal audit departments and in-house legal counsel than did larger ones before the Act, so they also incurred extra expenses to comply with SOX. These studies are based on management opinions and general statements that may be biased, and they do not compare small and large company responses.

Every public firm is subject to the same regulations under the Sarbanes-Oxley Act; however, some of the literature suggests that not all firms are equally affected by the law. Specifically, small firm managements cite significant increases in multiple types of costs. One of these costs, the audit fee, is documented annually within companies' proxy statements and reported to the Securities and Exchange Commission. This study examines the effect of the Sarbanes-Oxley Act on publicly traded companies' fees as reported to the SEC. The fees of large and small companies are adjusted for company size and then analyzed and compared before and after Sarbanes-Oxley compliance deadlines. More specifically, we test the null hypothesis that changes in these adjusted fees from before enactment to after enactment of SOX are equal for small and large firms. Statistical tests are performed to determine whether the fees paid, expressed as a percentage of revenues, by small companies were affected differently than those paid by large companies.

Prior literature has reported on factors that affect the amount of audit fees paid to external auditors. Thornton and Moore (1993) postulate in a theoretical model in which audit fees depend on business risk, internal control strength, and audit complexity. Other research has shown that the size of the firm being audited, the number of subsidiaries of the audited firm, who performs the audit, and the amount of foreign assets held by the firm are important determinants of audit fees. In particular, Turpen (1990) and Peel and Roberts (2003) conclude that size of the auditee, its number of subsidiaries, the amount of foreign assets held, and that as the audit firm becomes larger and more reputable, audit fees tend to increase. Similar variables are controlled for in the empirical analyses of this study.

Sample selection, variable definitions, and study methodology

Random samples of small and large firms were selected to test the effects of Sarbanes-Oxley on audit fees. Data were collected for fiscal years 2002 through 2005. Small firms are defined as firms that were constituents of the Standard & Poor's Smallcap 600 index. These firms have market capitalizations between \$300m and \$1bn. The small firm sample includes 150 firms selected from the S&P Smallcap 600 index firms. Financial and utilities companies were excluded because of various differences between their financial statements and those of other segments. The utilities and financial industries are subject to different regulations that create differences between their financial reports and those of other segments. The small sample contains companies from the following industries: energy, materials, industrials, consumer discretionary, consumer staples, health care, information technology, and telecommunication services, in proportion to their representation in the index after removal of the 109 financial and utility companies. More specifically, the sample included seven companies from the energy segment, 12 from materials, 29 industrials, 34



consumer discretionary, seven consumer staples, 22 health care, 38 information technology and one firm from the telecommunications industry.

Audit fee data were obtained via the SEC's EDGAR database. All other data were obtained from the Compustat[®] database. The data collection process was as follows. Data from Compustat[®] was collected first. If any firm's data were not obtainable from Compustat[®], the firm was removed from the sample and replaced with a firm from the same Smallcap 600 segment. This occurred for 17 firms within the small firm sample. Next, the audit fees for each firm for fiscal years ending 2002 through 2005 were collected. If audit fee data were not obtainable for any firm, this firm was removed and replaced with a firm from the same segment. This occurred four times within the small firms sample. Through this process the data needed for analysis were obtained for 150 firms.

Data on the sample of large firms were collected using the same process. The large firms sample includes firms that were constituents of the Standard & Poor's 500 index. Each of these firms has a market capitalization that exceeds \$4bn. Every firm included in the sample was a constituent of the index for fiscal years 2002 through 2005. The large firms sample includes 13 energy segment firms, 11 materials firms, 21 industrial firms, 35 consumer discretionary firms, 15 consumer staples firms, 21 health care firms, 30 industrial technology firms, and four telecommunication services firms. Initially, a random sample was selected and substitutions were made for firms with incomplete data. This occurred 13 times within the large firm sample. After those firms were replaced, audit fee data were collected from the EDGAR database. Three additional firms were replaced because audit fee data were not available. This process resulted in data collection for the 150 large firms.

As discussed previously, a number of different factors may influence the total amount of audit fees paid. The following regression equation includes control variables for these factors as well as variables of experimental interest:

$$\text{Auditfee}_{i,t} = \beta_0 + \beta_1 \text{Receiv}_{i,t} + \beta_2 \text{Current}_{i,t} + \beta_3 \text{Foreign}_{i,t} + \beta_4 \text{Perform}_{i,t} + \beta_5 \text{Index}_{i,t} + \beta_6 \text{Pre/Post}_{i,t} + \beta_7 \text{Interaction}_{i,t} + \varepsilon.$$

$\text{Auditfee}_{i,t}$ is defined as the i th firm's total audit fees paid as a percentage of revenues for the t th fiscal year. (i and t subscripts = i th firm and t th year for each variable) Receiv is defined as the firm's receivables divided by the firm's current assets as listed on their balance sheet for the end of the fiscal year. Current is defined as the firm's current assets divided by the firm's total assets. Foreign is defined as the absolute value of foreign currency translation to American dollars. Perform is a dummy variable representing the firm's performance for the fiscal year. If the firm incurs a net loss, this variable is set to one. If the firm makes a net profit, this variable is set to zero. Index is a dummy variable representing the index of which the firm is a part. If the firm is a constituent of the S&P Smallcap 600, this variable is set to one. If the firm is part of the S&P 500 index, this variable is set to zero. Pre/Post is a dummy variable representing whether or not the Sarbanes-Oxley compliance deadline has passed. This variable is set to zero if the fiscal year is 2002 or 2003 (Before Sarbanes-Oxley compliance) and one if the fiscal year is 2004 or 2005 (After Sarbanes-Oxley compliance). Interaction is a dummy variable representing interaction between the Size and Pre/Post variables. This variable is the product of the Size and Pre/Post dummy variables.

To achieve a standardized comparison between small and large companies, the dependent variable Auditfee is expressed as audit fees divided by revenues for the fiscal year. Prior literature includes numerous studies that have been conducted in order to determine variables affecting a firm's external audit fees. Most have found that the size of a company, the complexity of the audit, the performance of the company affect audit fees (Turpen, 1990; Peel and Roberts, 2003). Prior studies find a positive relationship between the audit complexity and audit fees paid. Complexity and performance are represented as control variables and size is a test variable. Specifically, larger amounts of receivables and current assets are likely to increase the complexity in a firm's audit. The first two variables in the test



equation attempt to capture this effect. Another factor contributing to firm audit complexity is its amount of foreign assets. However, those data are not readily obtainable in the databases used for this study. Therefore, the absolute value of foreign currency translation to dollars was used with the assumption that a higher amount would proxy for revenue-generating foreign assets. A firm's performance is also likely to influence the amount of fees paid to a firm's external auditor. Literature shows a negative relationship between income and audit fees paid. More specifically, audit fees increase significantly when the firm incurs a loss for the fiscal year. The dummy variable Perform is included to control for this effect. Thornton and Moore (1993) offer an interesting theoretical model of audit fees that includes as one of its determinants "internal control strength". Inclusion of this variable might improve our model controls. As in Simunic and Stein (1987), we were unable to observe a publicly available proxy for this variable. However, we feel we have captured in our publicly available control variables a sufficient degree of the variation in audit fees to draw conclusions about our study question.

Index, Pre/Post, and Interaction are the variables of interest in the regression equation. Index is included to test whether or not the firm's size affects how much it pays in audit fees. The Pre/Post variable is included to test whether or not a firm paid significantly more in fees after compliance with Sarbanes-Oxley. The Interaction term combines these two variables. It tests whether the slope coefficient for the Pre/Post change in audit fees differs between large and small firms.

Univariate statistics of the audit fee variable are used to test for the pre/post cost effects of Sarbanes-Oxley between small and large samples. Five different *t*-tests were conducted to analyze average audit fees divided by revenues. They were:

1. small sample fees before versus small sample fees after compliance;
2. large sample fees before versus large sample fees after compliance;
3. small sample fees versus large sample fees before compliance
4. small sample fees before versus large sample fees after compliance; and
5. small sample fee change versus large sample fee change from pre-compliance to compliance.

An *F*-test indicated the variances between the fees of the large and small samples were different, so the *t*-tests comparing average fees between small and large firms adjusted for unequal variances. The test of interest is the *t*-test comparing the changes in audit fees before versus after SOX compliance was conducted as follows. To test whether changes in fees paid in the pre-compliance (2002 and 2003) and post-compliance (2004 and 2005) were different between the large and small samples, fees were averaged for each firm in the pre-compliance and the compliance periods and the difference computed. The difference between these two averages (post-compliance minus pre-compliance) was taken for each firm and the average across firms was computed for the small firms sample and the large firm sample and subjected to the *t* test procedure. Following the univariate testing, a multivariate regression analysis was conducted to allow for the use of control variables and tests for interaction effects between size of firm and pre/post period on audit fees.

Empirical results

Tables AI-AIII provide the results from the univariate tests. These tests show that audit fees (divided by revenues) were statistically higher in the post-compliance period than they were in the pre-compliance period for both small and large firms. As shown in Table AI, the large firm sample mean audit fee is 0.0503 percent of firm revenues before compliance with Sarbanes-Oxley. After compliance, mean audit fee increased to 0.0855 percent of revenues ($t = 12.331$). This increase is statistically significant ($t = 12.331$) at the 99 percent confidence level. Before SOX compliance, the small firm mean audit fee was 0.180 percent



of revenues. The mean fee paid by small firms increase to 0.291 percent of revenues in the post-compliance period. The increase is statistically significant ($t = 2.927$) at the 99 percent confidence level. These two tests provide evidence that both small firms and large firms paid significantly more to external auditing firms for their services after compliance with Sarbanes-Oxley.

T-test results reported in Table AI compare mean audit fees paid by small firms to those paid by large firms for the pre-compliance years and for the post compliance years. The test results indicate that the audit fee variable is statistically greater for the small firm sample in both the pre and post compliance periods. The test statistics for the pre-compliance period ($t = 3.528$) and for the post compliance period ($t = 11.379$) are statistically significance at the 99 percent confidence level.

Because our interest is in the claim that small companies bear a heavier burden than large companies, we next test whether the mean increased fee paid by small firms is significantly larger than that paid by large firms. More specifically, the mean increase in fees for large firms of 0.0352 percent of revenue is compared to the mean audit fee increase of 0.110 percent of revenue paid by small firms. The results is $t = 1.881$, indicating the differences to be statistically significant at the 95 percent confidence level. These results support the claim that small firms experienced a significantly larger increase in audit fee burden due to compliance with Sarbanes-Oxley.

Next, a multivariate regression analysis is conducted to more rigorously examine the impact of SOX on these increasing audit fees by controlling for complexity of the audit, financial performance and two interaction variables. Table AIV is a correlation matrix of the dependent variable and the three complexity control variables Auditfee, Receiv, Current, and Foreign. In general, the correlations are not extreme. However, the correlation between receivables/current assets and current assets/total assets is -0.419 , indicating that as current assets become a larger component of total assets, accounts receivable become a smaller component of current assets. While some degree of caution might be indicated in interpreting these coefficients, because they are included only for control purposes and are not experimental variables both are maintained in the model.

Results from two regression models are presented in Table AV. Model 1 includes all variables discussed. However, because the pre/post variable was technically not significant at traditional significance levels in model 1, it is omitted from model 2.

In model 1 the adjusted R^2 is 0.105 with an intercept of $1.795e^{-5}$. Two of the control variable coefficients are significant, Receiv ($t = -1.886$) and Current ($t = 2.8410$). The coefficient for Foreign is not significant ($t = -0.127$). The coefficient for the Perform dummy variable is statistically significant ($t = 5.854$), indicating firms with negative earnings have higher audit fees and the Index dummy variable is statistically significant ($t = 3.178$), indicating audit fees as a percent of revenue are greater for small companies after controlling for audit complexity and firm financial performance. However, the Pre/Post dummy variable coefficient is technically not statistically significant ($t = 1.607$) at traditional significance levels (p -value = 0.108). However, the Interaction term used to capture the marginal increase in fees as a result of being a Smallcap 600 constituent rather than a S&P 500 constituent is statistically significant ($t = 2.003$) indicating that after controlling for other factors, the Pre/Post variable is important when interacting with the size of the company. In other words, the size of the company is important in explaining the difference in fees before and after compliance and small firms incur statistically greater increases after controlling for other variables in the regression.

Conclusions and implications

The intent of this study was to compare the compliance cost for Sarbanes-Oxley Act for small and large firms. More specifically, it was conducted to determine whether Sarbanes-Oxley increased the fees paid by firms to external auditors, and to determine whether or not small



firms' fees increased more than those of large firms. Results from this study suggest that small and large firms paid increased audit fees to their external auditors as a result of Sarbanes-Oxley and that small firms experienced larger increases than large firms.

The following are research opportunities with public policy implications that would involve further examination and explanation of the differences in fees between large and small firms. First, our study has been limited to the time immediately surrounding enactment of SOX. It would be interesting to examine cost differences for a longer period following enactment to see if they are maintained or whether these differences diminish/increase. Second, it has been argued that audit firms have used a strict interpretation of SOX to justify more intense audit processes and garner greater fees. Arguably, small firms have less influence on auditors than large firms and could be more subject to such abuse. Third, if small audit client business is not viewed to be as attractive to auditing firms as large clients auditor bids may be less competitive for small firms. Finally, our test focused on the differential impact of SOX induced audit fees by firm size and not on a complete explanation of audit fees. However, a more complete description of audit fees that includes such variables as strength of internal controls would be valuable. Perhaps, it could be measured by a count of the number of errors or by the materiality of errors made within company accounting systems. However, such research would require access to non-public information.

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Appendix. Univariate analysis

Tables AI-AIII report the mean values, *t*-statistics, and *p*-values for differences between mean audit fee/revenues. Table AI reports the results from the comparison of mean audit fees paid (divided by revenues) before and after SOX compliance for the large firm sample and for the small firm sample. Table AII compares the mean pre-compliance fees paid by the small versus large firm samples and the mean post-compliance fees paid by the small versus large firm samples. Table AIII reports the *t*-test of the mean difference between the post-compliance and pre-compliance fees paid by the small firm sample versus the mean difference between post-compliance and pre-compliance fees paid by the large firm

Table AI

	Pre-compliance (2002, 2003)	Post-compliance (2004, 2005)	t-statistic	p-value
Large firms' average of audit fees/revenues	0.000503	0.000855	12.331*	7.96e ⁻²⁹
Small firms' average of audit fees/revenues	0.00180	0.00291	2.927*	0.00184

Note: * Denotes the differences between two means are statistically significantly different at the 99 per cent confidence level

Table AII

	Large fees/revenues	Small fees/revenues	t-statistic	p-value
Pre-compliance	0.000503	0.00180	3.527*	0.000243
Post-compliance	0.000855	0.00291	11.379*	7.800e ⁻²⁶

Note: * Denotes the differences between two means are statistically significantly different at the 99 per cent confidence level

Table AIII

	Large firms sample	Small firms sample	t-statistic	p-value
Average increase in fees/revenues from pre-compliance to post-compliance	0.000352	0.00110	1.881**	0.0310

Note: * Denotes that differences between two means are statistically significantly different at the 95 per cent confidence level



Table AIV Correlation matrix

	<i>Auditfee</i>	<i>Receiv</i>	<i>Current</i>	<i>Foreign</i>
Auditfee	1			
Receiv	-0.134	1		
Current	0.190	-0.419	1	
Foreign	-0.012	-0.008	0.031	1

Table AV Multivariate regression models

<i>Variable</i>	<i>Coefficient (t-statistic), regression 1</i>		<i>Coefficient (t-statistic), regression 2</i>	
Intercept	1.795e ⁻⁵		0.000249	
Receiv	-0.00113*	-1.886	-0.00114*	-1.909
Current	0.00162***	2.841	0.00164***	2.880
Foreign	-4.260e ⁻⁸	-0.127	-6.663e ⁻⁸	-0.199
Perform	0.00167***	5.854	0.00163***	5.732
Index	0.000932***	3.178	0.000702***	2.740
Pre/Post	0.000458	1.607	-	-
Interaction	0.000804**	2.003	0.00126***	4.415
<i>n</i>	1,200		1,200	
Adjusted <i>R</i> ²	0.105		0.0978	
<i>F</i> (<i>p</i> -value)	21.010	8.369e ⁻²⁷	24.049	5.653e ⁻²⁷

Note: *, **, *** denote statistically significant variables at the 90 per cent, 95 per cent, and 99 per cent confidence levels, respectively

sample. Data were obtained from Compustat[®] as well as from proxy statement filings listed on the SEC's EDGAR database. Each of the samples (large firm and small firm) includes 300 pre-compliance and 300 post-compliance firm-year observations.

Table AIV is a correlation matrix that displays the correlation between the first three independent control variables used in the regression model. Table AV shows the significance of each variable in determining audit fees paid by small and large firms. The regressions include all firm-year observations. Table AV shows the coefficient and *t*-statistic for each variable in regression models 1 and 2. In regression model 1 the Current, Perform, Index, and Interaction variables are all statistically significant in determining audit fees. The Pre/Post variable is not statistically significant in determining the quotient of audit fees/revenues, but it does play an important role in the determination of that product. The same relationships are observed in regression model 2, which excludes the Pre/Post variable. However, the strength of the relationship between the Auditfee and Interaction variables increases. These results offer evidence that small and large firms experienced significant increases in audit fees due to SOX, and that small firm increases were larger than for large firms.

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