

**Do Nonaudit Services Enhance Value? Evidence from the Capital Markets**

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## **Do Nonaudit Services Enhance Value? Evidence from the Capital Markets**

### **ABSTRACT:**

Nonaudit services performed by auditors for their audit clients have long been a focus of concern for regulators. The SEC has mandated disclosure of fees for both audit and nonaudit services in order to provide investors with a more transparent representation of the auditor-client relationship. The purpose of this study is to investigate whether nonaudit service fees influence the value relevance of accounting numbers. We find that nonaudit fees have a positive effect on the value relevance of accounting numbers. This result suggests that the provision of auditor's nonaudit services increases the value relevance of accounting information. This result is contrary to the prevailing belief that nonaudit services impair auditor independence. We also find that investors' perception of nonaudit fees has changed. In particular, investors perceive nonaudit service as more value enhancing even after the enactment of Sarbanes-Oxley.

**Keywords:** Value relevance, Auditor's fees, Nonaudit fees

**Data availability:** All data are available from identified sources

## I. INTRODUCTION

There are long standing public policy concerns about whether auditors should be allowed to provide both audit and nonaudit services to their clients without any restriction on the scope of their services (e.g., Levitt, 2000). At issue is whether auditors act more favorably toward those clients from which they receive higher nonaudit fees. As a way of providing investors with more transparent information about the auditor-client relationship, the SEC has mandated that firms disclose the amount of all audit and nonaudit fees paid to their auditors (SEC 2000, 2003).

Interestingly, a presumption of the discussion among policymakers and researchers has been the negative influence of nonaudit services: i.e., the likely impairment of auditor independence when auditors are engaged to perform both audit and nonaudit services. However, it is quite possible that nonaudit services could have positive effects. Similar to advertising or R&D, nonaudit services represent voluntary expenditures intended to enhance the firm's value.<sup>1</sup> Also, the knowledge "spilled over" from nonaudit services may even improve audit quality. Nevertheless, these potential positive aspects of nonaudit services have been largely ignored.

In addition to concentrating more on the dysfunctional influence of nonaudit services, prior studies use abnormal stock market returns as surrogates for investors' perceptions of impairment of auditor independence and thus, concentrate more on information effect of nonaudit services (Frankel et al. 2002; Chaney and Philipich 2002; Ashbaugh et al. 2003). On the other hand, the benefits of nonaudit services may not occur immediately and could last for a relatively long time. Moreover, abnormal stock market returns, which essentially measure the reaction of investors to the unexpected portion of nonaudit fees, can be a noisy measure since

controlling for other information effects is problematic. For example, it is difficult to distinguish the market's reaction to auditor's fee information from the reaction to the other information simultaneously disclosed in the proxy filings. The timing mismatch between the recognition of the cost of nonaudit services and the realization of the benefits of those services, and the use of abnormal stock market returns could be the cause of the rather mixed and inconsistent results of the prior studies. Frankel et al. (2002) find a negative association between nonaudit fees and abnormal returns on the date the fees are disclosed. On the other hand, Ashbaugh et al. (2003) and Chaney and Philipich (2002) discover no significant association between nonaudit fees and abnormal returns. While Frankel et al. (2002) and Ashbaugh et al. (2003) document that the market reaction to the nonaudit fees disclosure is not economically significant, Francis and Ke (2003) find a significant disclosure impact on stock prices.

The purpose of our study is to examine the economic consequences of firms' expenditures on auditors' nonaudit services in order to understand whether the market perceives that such services create "economic dependency" for the auditor or substantive "value enhancement" for the client. The economic dependency hypothesis refers to the possibility that accounting earnings quality could be decreased with nonaudit fees. This is because nonaudit fees could cause auditors to become economically dependent on their clients who provide significant extra economic rents and thus lose their independence. On the other hand, the value enhancement hypothesis refers to the possibility that accounting earnings quality could be increased, because nonaudit services not only provide auditors with more knowledge about their clients but also strengthen independence by increasing auditors' accountability and legal liabilities. Accordingly, we test which of the two hypotheses better

explains the economic consequence of nonaudit services provided by auditors.

Another consideration of our study is whether the Sarbanes-Oxley Act (SOX) changed investors' perception of nonaudit fees. SOX not only banned audit firms from providing many nonaudit services but also required company executives to certify the accuracy and completeness of their major financial filings each quarter. Thus, SOX legislation and increased SEC regulatory efforts could have significantly affected investors' awareness of or reaction to nonaudit services

In order to examine the economic consequence of nonaudit fees, this study adopts the value relevance approach (Amir 1993, 1996; Barth 1994; Barth et al. 1992; Barth and Kallapur 1996) based on the Ohlson (1995) model specification which demonstrates how specific accounting numbers are summarized in stock prices. In contrast to the information content approach adopted in the prior studies (Frankel et al. 2002; Chaney and Philipich 2002; Ashbaugh et al. 2003), our approach enables us to examine the fundamental value of nonaudit services by showing how the nonaudit fees influence the value relevance of accounting numbers. By adopting the value relevance approach, we are able to avoid the two problems (i.e., use of a noisy measure and the timing issue) that inherently exist in the information content approach. In other words, value relevance approach does not require us to control for other events nor identify precise event date to match news event related to the fee information disclosure.

This study uses the annual auditor's fees disclosed in the proxies for the firms listed in the NYSE, NASDAQ, and AMEX exchanges with December fiscal year-ends for the period from 2000 to 2003, while most of the prior studies use fee data from the first half of 2001 or earlier in their analyses. By including this time period in our analyses, we can examine

whether auditor's fees change the valuations of firms in a context where policy makers have voiced extensive warnings about the potential for nonaudit services to impair auditor independence.

Our study reveals several interesting findings. First, we find that the nonaudit fee ratio has a positive effect on the value relevance of accounting information. This finding suggests the more a firm uses its auditor's nonaudit services, the more accounting information is associated with the firm's stock prices. This result is consistent with the value enhancement hypothesis, which predicts that nonaudit services improve accounting earnings quality and thus investors would rely more on accounting information as nonaudit services increase. This result is contrary to the prevailing belief that nonaudit services impair auditor independence. We also find that the nonaudit fee ratio is perceived more value enhancing post SOX. Our findings imply that SOX has made a substantial impact on investors' perception of nonaudit fees, and has led investors to view nonaudit services favorably. These findings do not change even after we control for the differences in the reporting formats between the old (SEC 2000) and new (SEC 2003) disclosure rules.

The remainder of this paper is structured as follows. Section 2 presents the theoretical background and develops the hypotheses to be tested. Section 3 describes our methods and Section 4 reports our results. After describing additional analysis in Section 5, we discuss concluding remarks in Section 6.

## **II. THEORETICAL BACKGROUND AND HYPOTHESES**

### **Economic Dependency Hypothesis and Value Enhancement Hypothesis**

The public policy debate about whether auditors should be permitted to provide both

audit services and nonaudit services to the same clients has long been a controversial subject. Critics argue that auditors would act more favorably toward those clients from which they receive higher nonaudit fees. For example, former SEC Chairman Arthur Levitt (2000) voiced fears that nonaudit services “shorten the distance between the auditor and management.” One of the major reasons<sup>2</sup> for this concern is that nonaudit services could provide auditors significant extra economic rents.

Simunic (1984) suggests that nonaudit services provide specific economic rents<sup>3</sup> because “knowledge spillover” could reduce audit-related costs. Knowledge spillover refers to the fact that the increase in client knowledge associated with the joint provision of audit and nonaudit services by the auditors may “spillover” from one service to the other, leading to cost reductions. In other words, the knowledge spillover causes the total costs of one firm jointly performing both audit and nonaudit services to be less than the sum of the costs if each service were performed by different firms (DeBerg et al. 1991). On the other hand, these extensive economic rents from nonaudit services paid to auditors increase the financial reliance of the auditor on the client who awards a significant amount of nonaudit services (hereafter referred to as the “Economic Dependency” hypothesis). As a result of this economic dependency, auditors’ independence could be impaired because auditors may become reluctant to challenge management concerning the content of the financial statements at the risk of foregoing lucrative economic rents.

Responding to concerns about auditor independence, the SEC now requires registrants to disclose fees paid to their auditors for both audit and nonaudit services in order to help investors better understand the relationship between the registrant and its auditor, and thus improve investment decisions. The initial disclosure requirement was mandated in the SEC’s

*Revision of the Commission's Auditor Independence Requirements* (SEC 2000) released in November 2000. As a result of this enactment, the auditor's fee data became publicly available for all proxy statements filed after February 5, 2001.

However, there are several bases on which to argue that nonaudit services enhance firm values rather than impair auditors' independence (hereafter referred to as the "Value Enhancement" hypothesis). First, the knowledge spillover from nonaudit services could actually improve independence. For example, knowledge of a client's information system and tax accounting could spill over to the audit, improve the information available to the auditor, and thus improve audit quality which, in turn, would increase the probability that problems are discovered (Kinney et al. 2004). Consistent with DeAngelo's (1981) definition of auditor independence,<sup>4</sup> the knowledge spillover from nonaudit services could improve auditors' independence by increasing the probability of detecting misstatements even though the auditor-client relationship impairs independence by decreasing the probability of reporting the misstatements detected. Second, auditors' concern for reputation (Benston 1975; Dopuch et al. 2003) and legal liability (Palmrose 1988; Shu 2000) should drive auditors to maintain their independence. For example, provision of nonaudit services increases the auditor's investment in reputation, which the auditor is not likely to jeopardize to satisfy the demands of any one client. If so, providing such services is less likely to impair independence. Third, nonaudit services may increase not only the auditor's dependency on its client, but also the client's dependency on its auditor (Lennox 1999). The client's dependency on its auditor resulting from nonaudit services could reduce the threat of the client switching auditors, thereby improving the auditor's independence.

### **Prior Studies of Auditor Independence and Nonaudit Fees**

The concern about auditor independence and availability of new, publicly available data on auditor's fees have prompted studies on whether nonaudit fees influence auditor independence using stock valuation measures as the indicator of the impairment (Frankel et al. 2002; Ashbaugh et al. 2003; Chaney and Philipich 2002). In these studies using stock market data, the common assumption is that investors penalize those clients whose auditors' independence may be impaired as a result of nonaudit fees.

However, there are several issues which must be considered in order to investigate this contention. First, the results from prior studies are mixed and inconclusive. Frankel et al. (2002) find a negative association between nonaudit fees and abnormal returns on the date the fees are disclosed. However, Ashbaugh et al. (2003) discover no significant association between nonaudit fees and abnormal returns. Finally, Chaney and Philipich (2002) find that nonaudit fees are negatively associated with abnormal returns, but the association is not significant as Frankel et al. (2002) and Ashbaugh et al. (2003) document. On the other hand, a significant negative disclosure impact on market reaction to earnings announcement is documented by Francis and Ke (2003).<sup>5</sup>

Second, prior studies adopt an information content approach, which uses abnormal returns as the measure of market reaction. This approach examines the market's response to the unexpected portion of the auditor's fee disclosure assuming that fees disclosed are unexpected information. However, abnormal returns are noisy measures for capturing the information effect of the news about auditor's fees which may be expected by investors or privately collected and available among audit firms. For example, while Frankel et al. (2002) use the proxy statements filed from February 5 through June 15, 2001, the imminent disclosure of auditor's fees was discussed extensively in the popular press prior to that sample period.

This prior exposure of investors to auditor's fees could have led investors to expect rule changes, which in turn could have reduced the information effect of the disclosure of auditor's fees. In addition, the timing of the fee disclosure may be confounded with other information simultaneously disclosed in the firms' SEC filings containing their auditor's fees. Thus, it is difficult to distinguish the market reaction to fee information from the market reaction to other important information disclosed in the proxy filings. Therefore, the information effect of fee disclosure becomes a secondary effect which is not directly related to the income numbers, since the other income components are already impounded in the prior earnings news such as 10-K filings. As a consequence, abnormal returns are not informative regarding the benefits for investors or costs of the firms, attributable to the auditor's fees disclosure.

Finally, prior studies use the data of the period of the first half of year 2001 or earlier. However, a series of important events and rule changes has occurred since then. For example, the Enron scandal emerged in October 2001. Subsequently, Andersen, the fifth largest audit firm in the world, collapsed after being barred from auditing SEC registrants in June 2002. Later, in July of that same year, SOX not only banned audit firms from providing many nonaudit services but also required company executives to certify the accuracy and completeness of their major financial filings each quarter. This series of significant events and rule changes could have a substantial impact on investors' perceptions of the association between nonaudit services and auditor independence.

## **Hypotheses**

The economic dependency hypothesis argues that providing nonaudit services impairs auditor independence and thus impedes earnings quality. If this is true, the market would perceive that the fees paid for these services decreases the value relevance of accounting

information. As a result, the association between the stock price and accounting information would diminish as firms' expenses for nonaudit fees increase.

On the other hand, the value enhancement hypothesis supports the idea that firms may benefit from nonaudit services because of the improvement of earnings quality due to the knowledge spilled over from nonaudit services. Then, we could expect that providing nonaudit services improves the value relevance of accounting information, and thus the association between the stock price and accounting information would increase as firm's expenses for nonaudit fees increase. Given these two competing hypotheses, the economic dependency hypothesis and the value enhancement hypothesis, we cannot make a definitive prediction regarding the effect of nonaudit fees on the association between stock prices and accounting information. Thus, we make a null hypothesis,

H1: Nonaudit fees do not affect the value relevance of accounting information.

SOX could have a significant impact on the investor's perception on the quality of accounting earnings. On the one hand, the recent significant events and rules changes could have captured investors' attention, inducing them to form more negative expectations about the fee information. Francis and Ke (2003) report that, before the fee disclosures, the market response did not depend on the level of nonaudit fees. However, after fees were disclosed, the market response to quarterly earnings surprises is significantly more negative for firms with high nonaudit fees. Such behavior may be due to investors perceiving an impairment of auditor independence resulting from greater economic dependency such that the reliability of the accounting information deteriorates enough to produce greater uncertainty about the firm. On the other hand, the same recent significant events and rules changes could have induced investors to form positive expectations about the fee information. The reduction in the

economic rents due to the prohibition of some major nonaudit services could have induced auditors to be more steadfast in resisting client pressure to permit earnings manipulation. Moreover, the increased awareness of the importance of reputation and legal liability for auditors presumably would reduce their incentives to allow earnings manipulation. Such enhancements of auditor independence may lead investors to perceive that nonaudit services could increase rather than decrease earnings quality. Thus, we form our hypothesis without any directional prediction.

H2: SOX has no impact on the effect of nonaudit fees on the value relevance of accounting information.

### **III. RESEARCH METHODS**

#### **Sample Data**

To test our hypotheses, we use annual auditor's fees disclosed in the proxies for the firms listed in NYSE, NASDAQ, AMEX exchanges with December fiscal year end for the fiscal years from 2000 to 2003. For all the available firms, we collect price and earnings information from COMPUSTAT. The initial sample yields 20,292. We also require the firms to be non-financial firms listed on NYSE, AMEX, and NASDAQ which reduces the new sample size to 12,921. In order to identify whether the fee disclosure is affected by the change in SEC rules, we require our sample to have fiscal years ending in December. Thus, our final sample contains 8,700 observations (1,831, 2,289, 2,348, and 2,232 for the years 2000 through 2003, respectively).

#### **Model**

In the examination of the value relevance of accounting numbers, prior studies commonly use Ohlson (1995)'s clean surplus relation. We also adopt Ohlson (1995)'s clean

surplus relation model as used in prior studies (Amir 1996; Barth 1994; Barth et al. 1992; Barth and Kallapur 1996) in the investigation of the usefulness of accounting information.

We use fiscal year end price (*PRICE*), book value of equity (*BV*), earnings before extraordinary items divided by total number of shares outstanding (*EPS*), and growth variable measured by market to book ratio (*GROWTH*) to control for the potential association between other information and price reflected in auditors' fees for growing firms.

### ***Impairment of Auditor Independence***

Hypothesis 1 is proposed to test whether nonaudit fees impair the quality of accounting information. In order to test Hypothesis 1, we used auditor's nonaudit fee ratio to the total fees (*RATIO*) as prior studies (Frankel et al. 2002; Larker and Richardson 2004) have used the ratio as a proxy for the impairment of auditor independence. Then, to capture its influence on accounting information, we create two interaction terms, one for book value (*RATIO*×*BV*) and the other for earnings (*RATIO*×*EPS*). By adding these terms, we form our test model as follows:

$$PRICE_{it} = \beta_0 + \beta_1 BV_{it} + \beta_2 EPS_{it} + \beta_3 GROWTH_{it} + \beta_4 RATIO_{it} \times BV_{it} + \beta_5 RATIO_{it} \times EPS_{it} + e_{it} \quad (1)$$

, where

- PRICE<sub>it</sub>* = stock price of firm *i* at the end of fiscal year *t* (Annual COMPUSTAT item #199);
- BV<sub>it</sub>* = book value per share of firm *i* at the end of fiscal year *t* per share (Annual COMPUSTAT items (#6-#181)/#25);
- EPS<sub>it</sub>* = earnings before extraordinary items per share (Annual COMPUSTAT items #18/#25);
- GROWTH<sub>it</sub>* = market to book ratio (COMPUSTAT item #199x#25 divided by #60)
- RATIO<sub>it</sub>* = nonaudit fees of firm *i* in the fiscal year *t* to the total fee ratio;
- ε<sub>it</sub>* = error term.

Therefore, the positive (negative) coefficients on interaction terms ( $\beta_4, \beta_5$ ) will suggest the positive (negative) impact of the nonaudit fees on the value relevance of accounting numbers.

### ***Effect of SOX on the Value Relevance of Accounting Information***

To test the effect of SOX on the association between nonaudit fees and the value relevance of accounting information as we propose in Hypothesis 2, we modify the regression model (1) with an additional indicator variable (*DUM*) to distinguish pre- and post-SOX period observations. We create interaction terms by multiplying *DUM* to each of the interaction term of book value (*RATIO*×*BV*) and that of earnings (*RATIO*×*EPS*). Thus, our test model is a modified version of regression model (2) as follows:

$$\begin{aligned}
 PRICE_{it} &= \gamma_0 + \gamma_1 BV_{it} + \gamma_2 EPS_{it} + \gamma_3 GROWTH_{it} + \gamma_4 RATIO_{it} \times BV_{it} \\
 &\quad + \gamma_5 RATIO_{it} \times EPS_{it} + \gamma_6 DUM_{it} \times RATIO_{it} \times BV_{it} \\
 &\quad + \gamma_7 DUM_{it} \times RATIO_{it} \times EPS_{it} + e_{it}
 \end{aligned} \tag{2}$$

, where:

$$DUM_{it} = 1, \text{ if the observation is from post SOX, otherwise, } 0,$$

and all remaining terms are as previously defined.

Thus, the significant positive (negative) coefficients on the three-way interaction terms ( $\gamma_6, \gamma_7$ ) will indicate the value enhancement (value decreasing) of nonaudit fees attributable to the enactment of SOX.

## **IV. RESULTS**

### **Descriptive Statistics**

Table 1 shows the summary of the variables used in the analysis and the coefficients for the correlations among the variables. Panel A shows that the average size of the firm in the

sample does not change much during the test period but the nonaudit fee ratio decreases substantially from 54.4% in 2000 to 30.6% in 2003 due to audit fees increasing while nonaudit fees are decreasing during the period. Panels B and C show that the correlation coefficients of the major test variables. Panel C presents the correlation coefficients of 2003 separately because of the change of the disclosure rule in 2003.<sup>6</sup> Panel B and C show that the variables, with the exception of *SIZE* and audit fee, are positively correlated with each other. Especially, nonaudit fee per share (all the other fees except audit fees) is positively related to the price under both disclosure requirements.

[Insert Table 1]

Table 2 reports the summary of auditor's fees by year and classification. Auditor's fees for 2003 are again presented separately in Panel B because of the change of the disclosure rule in 2003. Panel A and B of Table 2 show that, on average, total fees have decreased, from \$2,340,583 in 2000 to \$1,741,385 in 2003. This sharp decrease is due to a decrease in nonaudit fees which fell from \$1,694,128 in 2000 to \$682,400 in 2003. This represents an average per share decrease of approximately fifty percent, from 1.9 cents per share to 1 cent per share. However, audit fees have increased over this same period, from a mean of \$646,458 to \$1,058,985. On a per share basis, audit fees increased from 1.2 cents in 2000 to 2 cents in 2003. As a result of these changes, the ratio of audit fees to total fees increased from 27.6% ( $=\$646,458/\$2,340,583$ ) in 2000 to 60.8% ( $=\$1,058,985/\$1,741,385$ ) in 2003, while the ratio of nonaudit fees decreased from 72.4% ( $=\$1,694,128/\$2,340,583$ ) to 39.2% ( $=\$682,400/\$1,741,385$ ) over the same period. This change in the ratio is consistent with the increasing importance of the audit as the primary service provided to clients during this period, while nonaudit services have been on the decline. During the study period, the amount of FSDI

fees in ratio to total fees is very small. These fees virtually disappear later in the study period due to the proscription of such services by SOX in 2002. Table 2 also shows how significant the auditor's fees are in terms of the proportion of auditor's fee to the total revenue. The auditor's fee proportion to sales is the lowest in fiscal year 2000 (2.67%) and the highest in fiscal year 2001 (5.71%). In year 2003, the proportion to sales is 3.71%.

[Insert Table 2]

### **Auditor's Independence (H1) and the Effect of SOX (H2)**

Table 3 shows the test results for the regression model (1). The coefficients on the interaction terms,  $RATIO_{it} \times BV_{it}$  and  $RATIO_{it} \times EPS_{it}$  are both positive and statistically significant. This result suggests that a higher nonaudit fee ratio is accompanied by a higher value relevance of accounting information (both book value and earnings). Stated differently, this result suggests that the association between accounting information and stock prices increases as nonaudit fee ratio increases. This result allows the rejection of the null Hypothesis 1 and contradicts the economic dependency hypothesis. Further, this result is consistent with the value-enhancement hypothesis, which predicts that nonaudit services improve accounting earnings quality and thus investors would rely more on accounting information as nonaudit services increase. This calls into question the prevailing belief that higher levels of nonaudit services would result in lower stock prices as a result of concerns over possible impairment of auditor independence. Regarding this finding, we interpret that even though nonaudit fees are recorded as expenses, the market perceives that nonaudit fees are the results of a firm's voluntary investment to obtain the future benefits. In other words, this finding implies that the market recognizes the economic consequence of expenditures for nonaudit services as value enhancing activities. In this regard, our study which adopts value relevance approach is

distinguished from the other studies that adopt the information content approach (Frankel et al. 2002; Chaney and Philipich 2002; Ashbaugh et al. 2003). Our result shows the perceived value of nonaudit services while the information content approach captures the implication of additional information conveyed by the disclosure of nonaudit fees.

In the same table, we also provide the test results for the effect of SOX on the three-way interaction terms. The results show that the coefficients on the interaction terms,  $DUM_{it} \times RATIO_{it} \times BV_{it}$  and  $DUM_{it} \times RATIO_{it} \times EPS_{it}$ , are both positive and statistically significant. The results show that the impact of SOX on the value relevance of accounting information attributable to the audit independence impairment measure (i.e., nonaudit fee ratio) is positive. In other words, the results imply that investors perceive that the improvement of accounting information quality due to nonaudit services gets stronger after SOX. This result not only leads to the rejection of the null Hypothesis 2 but also further undermines the economic dependency hypothesis, supporting instead the value-enhancement hypothesis. This finding is quite interesting in light of the descriptive statistics reported in Table 2, which indicate that the amount of nonaudit fees and nonaudit fees per share, as well as the ratio of nonaudit fees to total fees, decrease after SOX. Nevertheless, the market perceives that the effect of nonaudit fees on accounting information quality becomes stronger after SOX. One potential explanation for this finding would be the change in the provision of nonaudit services post SOX due to the prohibition of nonaudit services that could possibly impair auditor's independence and the increased public attention and the requirement of stringent oversight of nonaudit services by the audit committee. Thus, the investors' perception about nonaudit fees might have changed as more value enhancing. This calls for the investigation of the relation between nonaudit fees and

stock prices. However, the examination of the nature of nonaudit fee expenditure is not the scope of this study that we will leave it for further studies.

## V. ADDITIONAL ANALYSIS

### *Effects Due to Rule Changes*

The results in Table 3 could be confounded by a rule change effect resulting from the modification of the definition of audit fees in 2003. Specifically, in the initial disclosure requirement (SEC 2000), the SEC defines the audit fee as the fee paid for the annual audit and for the review of the registrant's quarterly financial statements included in the registrant's Form 10-Q filings. On the other hand, the new requirements (SEC 2003) expanded the audit fee to include services that generally only the registrant's auditor reasonably can provide, such as comfort letters, statutory audits, attest services, consents and assistance with and review of documents filed with the SEC. Ceteris paribus, this modification in the definition of audit fee causes the nonaudit fee ratio to be decreased, which in turn could have overstated our findings on the effect of nonaudit fee ratio on the value relevance of accounting numbers.

To verify whether this rule change effect confounded our results reported in Table 3, we perform additional analyses only for fiscal 2002 when auditor's fees are available for both the old and new disclosure formats.<sup>7</sup> This analysis requires the collection of data reported for fiscal 2002, for which both old and new disclosure format fee data are available. This data collection process yields 601 firms for 2002.

Table 4 shows the descriptive statistics for the sample. In comparison to Table 2, Table 4 shows that the sample has smaller average total fees (\$1,698,594) than that of the whole sample (\$1,829,670) in 2002, which is also reflected in the higher level of auditor's fees in

proportion to total sales (7.53%). Also, the comparison of Panel A and B of Table 4 shows that, as expected, the new disclosure requirement rule causes nonaudit fees to be decreased.

[Insert Table 4]

To address the rule change effect, we replicate our findings in Table 5. However, Table 5 does not include the testing for the effect of SOX on association between nonaudit fee ratio and the value relevance of accounting information, because the data set includes only one year, i.e., year 2002. Table 5 presents the results for the sample using both old and new definition of nonaudit fees.

Table 5 also shows the coefficients on the interaction terms,  $RATIO_{it} \times BV_{it}$  and  $RATIO_{it} \times EPS_{it}$  are positive and statistically significant regardless of the definition of nonaudit fees. Thus, the results are consistent with our findings on the auditor independence impairment measure in the pooled sample (see Table 3). Overall, the results on Table 5 show that our findings with the pooled sample are robust to the rule change.

[Insert Table 5]

## VI. DISCUSSION

In this study, we explore whether the market perceives that nonaudit services provided by auditors result in the economic dependency of auditors on their clients or that these services result in value enhancement for firms relying on the expertise of their auditors. To address this question, we form hypotheses addressing the economic consequences of firms' expenditures on such services, and test them by examining the value relevance of accounting information influenced by nonaudit fees.

Our results indicate that the nonaudit fee ratio has a positive impact on the association between stock prices and accounting numbers. This suggests that investors perceive nonaudit fees as value enhancing expenditures such that the provision of auditor's nonaudit services increases the value relevance of accounting information. These results support the value enhancement hypothesis for nonaudit fees rather than the economic dependency hypothesis. Moreover, the positive perception by investors appears to become stronger after SOX. The results suggest that investors perceive that the association between nonaudit fees and the value relevance of accounting information is increased with SOX. These results are robust with respect to the effects of the changes in the disclosure rule.

Contrary to our major finding of a value enhancing aspect of nonaudit fees, findings of prior studies (Frankel et al. 2002; Chaney and Philipich 2002; Ashbaugh et al. 2003) show a negative market response to the disclosure of nonaudit services. Considering we use the same measure, i.e., nonaudit fee ratio, as a surrogate for the impairment of auditor independence as in the prior studies, these contrasting results are quite interesting. Our interpretation of these prior findings is that they capture the unexpected information content of the nonaudit fee ratio which is considered to be a proxy for the impairment of auditor independence. In other words, the information content approach demonstrates how stock prices adjust in response to new or surprising information that is provided in the recently mandated disclosure of auditor's fees. In contrast, our results demonstrate the existence of a market fundamental aspect of nonaudit fee expenditures other than the "news" effect. More specifically, our value relevance study captures the value of the nonaudit service itself. To address this issue more accurately, we must directly investigate the value of audit or nonaudit services but that investigation is beyond the scope of our study. We also attribute the difference in findings to the use of different

sample periods. Prior information content studies examine the fee-price relation for relatively short sample periods<sup>8</sup> when the disclosure of auditor's fees represented very "fresh" information (e.g., early 2000). However, our study examines this association over a four-year period (from 2000 through 2003) after the enactment of the first disclosure requirement. Therefore, our results are less vulnerable to the influence of transitory reactions driven by press coverage. Finally, we find that SOX has a significant impact on investors' perception of nonaudit fees, eliciting a favorable reaction to increases in nonaudit services. Therefore, we can conjecture that if we were to perform the same information content analysis for the period after SOX, we would be more likely to find positive investors' reactions to the nonaudit fees, just as prior studies (Frankel et al. 2002; Ashbaugh et al. 2003; Chaney and Philipich 2002) examined the period before SOX and found negative associations between nonaudit fees and abnormal returns. However, we have left the demonstration of such expectations for future research.

Overall, we hope that our articulation of the value enhancement hypothesis provides a helpful perspective from which to better understand the market's perception of services provided by auditors. Further, we feel that our findings may inform the ongoing policy debate over the scope of auditor services by providing insight into how investors value such services. Nonetheless, we need further investigation of the value of auditor's nonaudit services. While our approach cannot demonstrate the actual presence or absence of independence impairment, our evidence does challenge the accepted notion that investors will inevitably respond negatively to nonaudit services provided by auditors.

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**TABLE 1**  
**Descriptive Statistics of Sample and Correlation Coefficients**

**Panel A: Descriptive Statistics of Sample**

	<i>Mean</i>	<i>STD</i>	<i>Lower Quartile</i>	<i>Median</i>	<i>Upper Quartile</i>
<i>Year=2000 N=1,831</i>					
<i>Price</i>	19.931	17.097	6.625	14.875	29.000
<i>Earnings Per Share</i>	0.495	2.092	-0.465	0.512	1.515
<i>SIZE(Log of Total Assets)</i>	6.080	1.826	4.773	5.808	7.224
<i>Audit Fee per Share(A)</i>	0.012	0.014	0.004	0.008	0.015
<i>Nonaudit Fee per Share(B)</i>	0.019	0.026	0.005	0.011	0.023
<i>Nonaudit Fee Ratio(B/(A+B))</i>	0.544	0.222	0.382	0.578	0.715
<i>Year=2001 N=2,289</i>					
<i>Price</i>	16.622	15.659	4.250	11.900	24.590
<i>Earnings Per Share</i>	-0.153	2.756	-0.751	0.054	0.914
<i>SIZE(Log of Total Assets)</i>	5.650	2.030	4.258	5.450	6.861
<i>Audit Fee per Share(A)</i>	0.014	0.018	0.005	0.009	0.018
<i>Nonaudit Fee per Share(B)</i>	0.017	0.027	0.003	0.008	0.020
<i>Nonaudit Fee Ratio(B/(A+B))</i>	0.463	0.226	0.300	0.475	0.640

**TABLE 1**  
**(continued)**

	<i>Year=2002 N=2,348</i>				
<i>Price</i>	13.095	15.069	2.735	7.745	19.225
<i>Earnings Per Share</i>	0.145	2.924	-0.531	0.125	1.032
<i>SIZE(Log of Total Assets)</i>	5.621	2.106	4.117	5.441	6.981
<i>Audit Fee per Share(A)</i>	0.016	0.018	0.006	0.011	0.021
<i>Nonaudit Fee per Share(B)</i>	0.013	0.022	0.002	0.006	0.015
<i>Nonaudit Fee Ratio(B/(A+B))</i>	0.373	0.214	0.215	0.364	0.524
	<i>Year=2003 N=2,232</i>				
<i>Price</i>	18.717	17.627	5.780	13.905	27.220
<i>Earnings Per Share(EPS)</i>	0.458	2.486	-0.294	0.267	1.177
<i>SIZE(Log of Total Assets)</i>	5.788	2.073	4.303	5.661	7.140
<i>Audit Fee per Share(A)</i>	0.020	0.025	0.007	0.013	0.024
<i>Nonaudit Fee per Share(B)</i>	0.010	0.014	0.002	0.005	0.012
<i>Nonaudit Fee Ratio(B/(A+B))</i>	0.306	0.187	0.158	0.293	0.440

**TABLE 1**  
**(continued)**

**Panel B: Correlation Coefficients under Old Disclosure Requirement (2000~2002)**

	<i>Price</i>	<i>EPS</i>	<i>Audit Fee per Share</i>	<i>Nonaudit fee per Share</i>
<i>EPS</i>	0.367***			
<i>Audit Fee per Share</i>	0.057***	0.051***		
<i>Nonaudit fee per Share</i>	0.192***	0.047***	0.471***	
<i>SIZE</i>	0.587***	0.188***	-0.002	0.206***

\*, \*\*, and \*\*\* denote statistical significance at the 0.10, 0.05, and 0.01 level, respectively

**Panel C: Correlation Coefficients under New Disclosure Requirement (2003)**

	<i>Price</i>	<i>EPS</i>	<i>Audit Fee per Share</i>	<i>Nonaudit fee per Share</i>
<i>EPS</i>	0.407***			
<i>Audit Fee per Share</i>	0.146***	0.029		
<i>Nonaudit fee per Share</i>	0.208***	0.144***	0.492***	
<i>SIZE</i>	0.572***	0.260***	0.026	0.159***

\*, \*\*, and \*\*\* denote statistical significance at the 0.10, 0.05, and 0.01 level, respectively

**TABLE 2**  
**Auditor's Fees**

**Panel A: Old Disclosure Requirement (2000~2002)**

	<u>TOTAL</u>	<u>AUFEE</u>	<u>NAUFEE</u>		
			<u>SUBTOTAL</u>	<u>FSDI</u>	<u>OTHFEE</u>
<2000>					
Mean (\$)	2,340,583	646,458	1,694,128	293,999	1,400,129
Fees per share (\$)	0.031	0.012	0.019	0.002	0.017
Proportion to Sales (%)	2.67	1.38	1.29	0.04	1.25
<2001>					
Mean (\$)	1,971,270	652,303	1,318,967	186,581	1,132,386
Fees per share (\$)	0.031	0.014	0.017	0.002	0.015
Proportion to Sales (%)	5.71	3.10	2.61	0.01	2.60
<2002>					
Mean (\$)	1,829,670	848,267	981,403	79,806	901,597
Fees per share (\$)	0.029	0.016	0.013	0.001	0.012
Proportion to Sales (%)	3.96	1.97	1.99	0.00	1.99

**Panel B: New Disclosure Requirement (2003)**

	<u>TOTAL</u>	<u>AUFEE</u>	<u>NAUFE</u>			
			<u>SUBTOTAL</u>	<u>AURFEE</u>	<u>FSDI</u>	<u>OTHFEE</u>
Mean (\$)	1,741,385	1,058,985	682,400	234,546	439	447,415
Fees per share (\$)	0.030	0.020	0.010	0.003	0.000	0.007
Proportion to Sales (%)	3.71	2.80	0.91	0.44	0.00	0.47

**TABLE 3**

**Value Relevance of Auditor's Independence (Accounting Information and Nonaudit Fees Ratio) and the Effect of Sox**

$$PRICE_{it} = \beta_0 + \beta_1 BV_{it} + \beta_2 EPS_{it} + \beta_3 GROWTH_{it} + \beta_4 RATIO_{it} \times BV_{it} + \beta_5 RATIO_{it} \times EPS_{it} + e_{it} \quad (1)$$

$$PRICE_{it} = \gamma_0 + \gamma_1 BV_{it} + \gamma_2 EPS_{it} + \gamma_3 GROWTH_{it} + \gamma_4 RATIO_{it} \times BV_{it} + \gamma_5 RATIO_{it} \times EPS_{it} + \gamma_6 DUM_{it} \times RATIO_{it} \times BV_{it} + \gamma_7 DUM_{it} \times RATIO_{it} \times EPS_{it} + e_{it} \quad (2)$$

where:

$PRICE_{it}$  = stock price of firm  $i$  at the end of fiscal year  $t$  (COMPUSTAT item #199);

$BV_{it}$  = book value per share of firm  $i$  at the end of fiscal year  $t$  (COMPUSTAT (#6-#181)/#25);

$EPS_{it}$  = earnings before extraordinary items (COMPUSTAT #18/#25);

$GROWTH_{it}$  = market to book ratio (COMPUSTAT item #199x#25 divided by #60)

$RATIO_{it}$  = Non audit fees/Total fees;

$DUM_{it}$  = 1 where the observation is post SOX, and 0 otherwise;

And

$e_{it}$  = error term.

	<u>BV</u>	<u>EPS</u>	<u>GROWTH</u>	<u>RATIO</u> <u>×BV</u>	<u>RATIO</u> <u>×EPS</u>	<u>DUM</u> <u>×RATIO</u> <u>×BV</u>	<u>DUM</u> <u>×RATIO</u> <u>×EPS</u>	<u>Adj. R<sup>2</sup></u>
Auditor's Independence ( <i>t</i> -statistics)	1.030 (49.05) <sup>***</sup>	0.596 (5.75) <sup>***</sup>	0.002 (1.10)	0.291 (6.72) <sup>***</sup>	1.213 (5.76) <sup>***</sup>			0.5118
SOX Effect ( <i>t</i> -statistics)	1.017 (47.98) <sup>***</sup>	0.496 (4.56) <sup>***</sup>	0.002 (1.10)	0.238 (5.41) <sup>***</sup>	1.302 (8.11) <sup>***</sup>	0.419 (4.85) <sup>***</sup>	0.841 (2.27) <sup>**</sup>	0.5142

\*, \*\*, and \*\*\* denote statistical significance at the 0.10, 0.05, and 0.01 level, respectively, for a two-tailed test.

**TABLE 4**  
**Auditor's Fees of the Firms Reporting both Old and New Disclosure Formats in 2002**  
**(601 observations)**

**Panel A: Old Disclosure Requirement**

	<u>TOTAL</u>	<u>AUFEE</u>	<u>NAUFEE</u>		
			<u>SUBTOTAL</u>	<u>FSDI</u>	<u>OTHFEE</u>
<2002>					
Mean (\$)	1,698,594	757,626	940,968	22,382	918,586
Fees per share (\$)	0.029	0.013	0.016	0.000	0.015
Proportion to Sales (%)	7.53	2.56	4.97	0.00	4.97

**Panel B: New Disclosure Requirement**

	<u>TOTAL</u>	<u>AUFEE</u>	<u>NAUFEE</u>			
			<u>SUBTOTAL</u>	<u>AURFEE</u>	<u>FSDI</u>	<u>OTHFEE</u>
Mean (\$)	1,698,594	861,686	836,908	220,123	22,382	594,403
Fees per share (\$)	0.029	0.015	0.014	0.004	0.000	0.010
Proportion to Sales (%)	7.53	4.34	3.17	1.49	0.00	1.68

**TABLE 5**  
**Value Relevance of Auditor's Independence (Accounting Information and Nonaudit Fees Ratio)**  
**of Firms reporting both Old and New Disclosure Formats in 2002**

$$PRICE_{it} = \beta_0 + \beta_1 BV_{it} + \beta_2 EPS_{it} + \beta_3 GROWTH_{it} + \beta_4 RATIO_{it} \times BV_{it} + \beta_5 RATIO_{it} \times EPS_{it} + e_{it} \quad (1)'$$

where variables are as defined before

	<u>BV</u>	<u>EPS</u>	<u>GROWTH</u>	<u>RATIO</u> × <u>BV</u>	<u>RATIO</u> × <u>EPS</u>	<u>Adj. R<sup>2</sup></u>
Old Definition <i>t-statistics</i>	1.038 (11.01)***	1.224 (2.78)***	0.003 (10.74)***	0.199 (1.86)*	2.764 (2.54)**	0.6872
New Definition <i>t-statistics</i>	1.040 (11.60)***	1.324 (2.91)***	0.003 (10.74)***	0.379 (1.99)**	2.491 (2.21)**	0.6875

\*, \*\*, and \*\*\* denote statistical significance at the 0.10, 0.05, and 0.01 level

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<sup>1</sup> Some may argue that the choice of auditors to perform nonaudit services is not entirely voluntary. However, it should be noted that firms are not required to use their auditors for nonaudit services. A firm could almost always engage another auditor or consultant to perform such services. Further, many firms have discontinued use of their auditor for nonaudit services in the wake of SOX. The fact that the firms choose their auditors for nonaudit service, in spite of the clamor about potential impairment of independence, would suggest that they expect greater benefits or less transaction costs from their auditors than from other providers.

<sup>2</sup> The other most commonly cited reason is that the nature of many nonaudit services puts auditors in managerial roles, potentially threatening their objectivity about the transactions they audit.

<sup>3</sup> DeAngelo (1981) shows that audit services provide economic rents, which results from the auditors' learning over time or switching costs imposed upon the client.

<sup>4</sup> DeAngelo (1981) defines auditor independence as a joint probability that the auditor will detect a breach in the financial report and report the discovered breach.

<sup>5</sup> The other stream of prior studies examines accounting earnings quality. Their results are also mixed. Frankel et al. (2002) supports the economic dependency hypothesis by reporting a positive relation between provision of nonaudit services and discretionary accruals. This result implies that the provision of nonaudit services can strengthen the auditor's economic dependency with the client, thereby increasing the auditor's incentive to acquiesce to client pressure, including the pressure to allow earnings management. Ashbaugh et al. (2003) replicate the results of Frankel et al. (2002). However, Ashbaugh et al. (2003) document that the positive relationship disappears after controlling for firm performance. Chung and Kallapur (2003) find no association between their audit fee metrics and the absolute value of discretionary accruals measured with the modified Jones model. Larcker and Richardson (2004) find that the association between nonaudit fees and earnings quality is sensitive to the measure of economic dependency. Other studies, examining modified audit opinions (DeFond et al. 2002), litigation (Palmrose 1999) or earnings restatement (Kinney et al. 2004), fail to find any significant effect of nonaudit services on these measures.

<sup>6</sup> The SEC now requires the disclosure of auditor's fees at a more detailed level. In the initial disclosure requirement (SEC 2000), the SEC required that registrants disclose fees paid to auditors in proxy filings, categorizing the payments as follows: the audit fee, financial information systems design and implementation (FSDI) fees, and other fees. The new requirements (SEC 2003) make several key changes to previous fee disclosure. The fee categories are expanded to include "audit related" and "tax fees," and the FSDI category is eliminated due to the proscription of such services. Thus, auditor's fees could be categorized into five components in the new requirement: audit fees, audit related fees, FSDI fees, tax fees, and other fees.

<sup>7</sup> Because the new disclosure rule requires that fees paid to auditors be disclosed for the two most recent years from 2003 instead of the most recent year as required by the old disclosure rule, 2002 is the only year of which old fees and new fees are both disclosed.

<sup>8</sup> Frankel et al. (2002) use the proxy statements filed during 2/5/01-6/15/01, while Ashbaugh et al. (2003) use all proxy statements for 2000.