Does the Choice of Auditor Convey Quality in an Initial Public Offering?

Roni Michaely and Wayne H. Shaw

To investigate the effect of reputation on auditor business decisions, we look at the relationship between auditor reputation and the characteristics of the IPOs that auditors take to the market. Consistent with our hypotheses, we find that: 1) More prestigious auditors are associated with IPOs that seem a priori less risky; 2) the market perceives as less risky the IPOs that are associated with more prestigious auditors; and 3) IPOs' long-term performance is related to the prestige of the auditor employed.

This study examines the relationship between auditor quality and the characteristics of the Initial Public Offerings (IPOs) associated with it. Analyzing this relationship is interesting for at least two reasons. First, IPOs exhibit an average first-day return that cannot be explained by the standard risk-return tradeoff. Ibbotson, Sindelar, and Ritter (1988), for example, find that the average first-day IPO return is 16.3% in the years 1960-1987. Several reasons have been proposed to explain why a firm would willingly underprice its securities and limit the funds received. Many of these reasons rely either on contractual problems between the parties involved (e.g., Baron, 1982) or on asymmetric information (e.g., Allen and Faulhaber, 1989, and Rock, 1986). A common feature in these explanations is that lower uncertainty reduces the need for underpricing. The presence of a prestigious auditor may serve as an effective vehicle to reduce uncertainty about future cash flows of the newly traded firm (Balvers, McDonald, and Miller; 1988; Beatty, 1989; and Titman and Trueman, 1986) and, consequently, underpricing.

The ability of a firm to convey quality through the selection of the auditor is similar to that of the selection of the firm's underwriter. For example, Beatty and Ritter (1986) suggest that the underwriter can, through repeated business in the IPO market, develop a reputation. An underwriter with "good" reputation capital is able to earn a higher return either through having lower distribution costs or by being able to charge higher underwriting fees. Carter and Manaster (1990) suggest that the desire to protect their reputation leads higher-quality underwriters to market low-risk IPOs. The same argument applies to auditors. Indeed, Carpenter and Strawser (1971) document that a significant number of firms going public switched from a regional to a "nationally known" auditor. However, since prestigious auditors charge higher fees (see Beatty, 1989, and Francis and Simon, 1987), lower-quality firms may not find it worthwhile to enlist those auditors' services. Beatty (1989) shows a significantly lower underpricing for IPOs that use reputable auditors. The results we present are consistent with, and extend, both of these earlier efforts.

The second reason for this investigation is related to the effect of reputation on the auditor business decision. Auditors, like investment banks, have reputations to uphold. One of their most important business decisions is which IPOs they want to be associated with. Consequently, they have an incentive to screen prospective IPOs and audit only the ones that are less risky (e.g., Titman and Trueman, 1986). Being associated with poorly performing IPOs is likely to have a negative effect on their reputations.

In addition, auditors who are associated with poorly performing IPOs may be subject to lawsuits by shareholders. (IPOs with greater ex ante uncertainty are more likely to perform poorly.) Larger and more prestigious auditors are more vulnerable to these lawsuits because of their "deeper pockets" and because of more severe consequences of damaged reputations that prestigious auditors might experience (Dye, 1993). (On the relationship between initial underpricing and lawsuit avoidance, see Tinic, 1988.)

We would like to thank Rob Bloomfield, Tom Dyckman, John Elliott, Bob Libby, Mark Nelson, Joe Paperman, the accounting workshop participants at Cornell, and two anonymous Financial Management referees.
likelihood of a lawsuit is not only a function of the IPOs' immediate performance but also of how they perform during the several years after they begin trading. Hence, reputable auditors have an incentive to associate themselves with IPOs that are less likely to perform poorly in the long run.1

Another reason to examine the relationship between auditor reputation and IPO long-run performance is the evidence that the first-day trading price may not reflect the intrinsic value of the newly traded stock (e.g., Levis, 1993, Michaely and Shaw, 1994, and Ritter, 1991). Therefore, IPOs' long-term value may provide new information about their characteristics that were not revealed by their first-day pricing. In addition, since both auditors and investment bankers play a significant role in the IPO process, it is interesting to compare the relationship between performance (both short- and long-term) of IPOs associated with reputable investment banks to the performance of IPOs associated with reputable auditors. A final motivation for the analysis of long-term pricing is that, while it is difficult for investors to purchase shares at the offering price, they can always purchase shares in the market right after the offerings. Hence, if long-run performance and the auditor's prestige are correlated, an investment strategy can be implemented in IPOs based on an auditor's reputation.

Given our objectives, we conduct the empirical investigation in three stages. In the first stage, we examine whether more prestigious auditors are indeed associated with IPOs that seem *a priori* less risky. Using an ordered probit analysis, we show that prestigious auditors are more likely to have clients that are bigger and have lower debt ratios. These clients are also more likely to hire reputable investment bankers to price and market their securities. These findings are consistent with the hypothesis that reputable audit firms screen prospective IPOs and select for the market those that are less risky.

Since the information available on many firms going public is limited, it is not clear that the audit firm's valuation of the IPO firms will be consistent with the market perception. Thus, in the second stage, we examine whether the market indeed perceives as less risky the IPOs that are associated with more reputable auditors. Consistent with Beatty (1989), we find significantly lower underpricing for IPOs that use prestigious auditors. We also show that the cross-sectional variance in return for those IPOs is about one-half of the ones associated with less reputable auditors. Consistent with this assertion, we find that the market-to-book values of IPOs associated with less reputable auditors are significantly higher than those that are associated with the more reputable auditors. We also examine the ownership structure conditional on the auditor employed. It has been suggested (see, for example, Grinblatt and Hwang, 1989, and Leland and Pyle, 1977) that higher fractions held by insiders reduces the uncertainty about the IPO value. We do not find any significant difference in ownership between clients associated with prestigious auditors to the ones associated with less prestigious auditors.

Given the recent evidence concerning the long-run performance of IPOs (see for example, Aggarwal, Leal, and Hernandez, 1993; Loughran and Ritter, 1995; Michaely and Shaw, 1994; and Ritter, 1991), it is not clear that IPOs that are *a priori* perceived as less risky will indeed turn out to be so.

The last dimension of our analysis relates the auditor's prestige to the long-term characteristics of the firms that go public. In an ideal world, we could have carried out our investigation by simply looking only at the cross-sectional variance of the IPOs associated with the different auditors. The ones associated with the most prestigious auditors are expected to have the lower variance. However, the analysis of the variance is not sufficient for several reasons. First, from the auditor (or the investment banker) perspective, the benefits from a stellar IPO may be much lower relative to the costs associated with a poorly performing IPO, both in terms of reputation and of the costs associated with lawsuits. Second, given the findings of Ritter (1991) concerning the poor long-run performance of IPOs, it is possible that neither the average performance nor the variance reveal the entire picture concerning the long-run return characteristics of IPOs. Therefore, we examine other moments of the distribution as well.

While we do not find significant differences between the long-run performance of IPOs associated with the Big Eight and the second-tier CPA firms, both groups perform significantly better than the IPOs associated with the small CPA firms.2 This poorer performance of the IPOs associated with the less prestigious auditing firms manifests itself not only through a mean two-year excess return of -37% but also through a median performance of -58%. These results tentatively

---

1 Indeed, Beatty (1993) finds that: 1) It is usually the small auditors who are involved in IPOs that are subsequently delisted and 2) even among this group of auditors (small-client auditors), there are substantially higher fees charged to IPOs that are subsequently in financial distress. Thus, they try—at least partially—to be compensated against this potential cost.

2 In the univariate analysis, we use either the two-way (Big Eight and non-Big Eight) or the three-way (Big Eight, second tier, and small CPA firms) split as a surrogate for reputation (following Beatty, 1989). In the multivariate analysis, we are able to use a finer definition of reputation. It should be pointed out that, since we do not have a solid theoretical explanation to the puzzle surrounding IPOs long-term performance, it is difficult to draw definite conclusions from the relative long-term performance of the different IPO groups.
support the hypothesis that IPOs associated with the more prestigious auditors experience better long-run performance. However, we should keep in mind that the median returns for all of the IPO groups are negative. We show that, on average, even IPOs associated with one of the Big Eight firms underperform the market.

The remainder of the paper is organized as follows: Section I develops the potential interaction between IPO firm’s characteristics and the auditor prestige. Section II describes the data and methodology. The empirical results are presented in Section III, and Section IV concludes.

I. The Interaction Between IPO Quality and Auditor Choice: Implications

Several reasons have recently been proposed in the literature to explain why a firm would willingly underprice its securities and limit the funds it receives. One common feature to many of these explanations is the prediction that IPOs that are subject to greater uncertainty will be associated with greater underpricing. In Baron (1982), underpricing is seen as the outcome of a principal-agent problem between the issuer and the investment banker. The firm knowingly agrees to be underpriced in order to give the investment banker the appropriate incentive to make the optimal distribution of its securities. The greater the uncertainty about the equilibrium value of the firm, the greater the need for the underwriter services and, consequently, the underpricing. Thus, uncertainty about firm value and underpricing are positively correlated.

Rock’s (1986) explanation of underpricing relies on information asymmetry between informed and uninformed outside investors. The informed investors possess better knowledge about the future prospects of the firm. The information asymmetry leads to the “winner’s curse” problem in which less informed investors usually end up with less successful IPOs. The greater the dispersion of information between these investors’ groups, the deeper the average underpricing. In the signaling models (e.g., Allen and Faulhaber, 1989, and Welch, 1989), good firms try to convince the market of their true worth through underpricing. Lower-quality firms do not find it worthwhile to mimic this strategy. As with the previous two classes of models, uncertainty about value and underpricing of the IPO are positively related. The more precise the information of outside investors about the firm value, the lower the incentive of the insiders to signal, i.e., to underprice.

Under these scenarios, good firms have the incentive to reduce uncertainty about their value. The choice of auditor (and underwriter) may convey to the market additional information about the firm’s quality. There are two reasons why more prestigious auditors may be associated with higher-quality IPOs. First, prestigious auditing firms have their reputations to uphold. Association with lower-quality IPOs may adversely affect their reputation not only in the IPO business but in their entire array of activities. Therefore, those firms are motivated to screen the prospective IPOs and select the less risky ones. Second, prestigious auditing firms charge higher fees. Lower-quality firms will have less incentive to enlist their services because of a lower marginal benefit.

Titman and Trueman (1986) construct a signaling equilibrium model in which the choice of the auditor reveals information about the value of the issuing firm. Good firms have much to gain from their quality being revealed and are therefore willing to pay the higher fees associated with quality auditing. In Carter and Manaster (1990), the choice of the investment banker increases the precision of information (i.e., reduces variance) revealed to the market. Issuers with lower variance will choose a prestigious underwriter and will pay the higher fees associated with this choice. The very same reasoning can be applied to the choice of auditor. Consequently, choosing a reputable auditor will result in lower underpricing since there is less uncertainty about quality.

To summarize this discussion, there are two closely related issues concerning the relation between the auditor choice and the quality of the firm going public. The first is whether prestigious auditors attempt to associate themselves with less risky IPOs. This decision is made before the IPO shares are traded and is based on the limited information available to the auditor prior to the IPO event. The second is the market perception about association between the riskiness of the IPO and auditor reputation. The two may or may not be the same, depending on the information structure. If prestigious auditors indeed select less risky IPOs and if the market interprets it as such, then the market perception and the auditor intention will align. Examining these two separately allows us to address this question as well. Thus, the first hypothesis is about the relationship between the ex ante characteristics of the IPO and the auditor reputation. The second hypothesis summarizes the relationship between the market perception and the riskiness of the IPO.

Hypothesis 1: IPOs with a lower ex ante uncertainty will be associated with more prestigious auditors.

Hypothesis 2: IPOs that are associated with more prestigious auditing firms are perceived by the market as less risky.

The choice of auditor may have some implications about the IPOs’ long-run performance as well. Being associated
with poorly performing IPOs may have a significant, direct cash-flow consequence. Auditors of IPOs that experience substantial reductions in value are subject to lawsuits by equity holders. Section 11 of the Securities Act of 1933 imposes an unusual burden on the auditor. A third party may sue the auditor for any material misrepresentation or omission in the audited financial statements included in the registration statements. The third party does not have to prove that the auditor was negligent or fraudulent or that the decision to invest was based on this statement. (For more details, see Arens and Loebbecke, 1991.) Association with poorly performing IPOs may also have indirect cash flow consequences. The loss to the auditor’s reputation may cause other prospective IPO firms to go elsewhere, thereby reducing the auditor’s ability to generate other future business as well. Larger, more prestigious auditors are more vulnerable to both the threat of a lawsuit because they have “deeper pockets” (Dye, 1993) and the loss of reputation since they have more to lose from a damaged reputation. A recent example appears in The New York Times (January 10, 1994, section D1). Arthur Andersen & Co. and Deloitte Touche, who were the auditors for the Prudential Bache Energy Income partnership IPO, are subject to a class-action lawsuit seeking $1.1 billion in damages. Dye (1993) also mentioned that in 1992 alone, there was an estimated $30 billion in lawsuits against auditors. This discussion yields the following empirical implication:

**Hypothesis 3:** IPOs that are associated with more prestigious auditing firms are likely to experience lower variability in their future performance and represent a smaller proportion of extreme losers than do IPOs associated with less prestigious auditors.

### II. Data

In this section, we describe our sample selection and present some descriptive statistics of the sample firms.

#### A. Sample Selection

The sample of IPOs was accumulated from the 1984-88 issues of the *Directory of Corporate Financing*. To remain in the sample, a firm had to meet four requirements:

1. The offer had to be a firm commitment with a share price of at least one dollar.
2. Each unit had to contain only one share of stock (e.g., no warrants or debt instruments attached).
3. Financial data for the first year after the IPO had to be available from COMPUSTAT or NAARS.
4. The issue was not formed as partnership, closed-end fund, or REIT.

We found a total of 1,120 firm-commitment IPOs with a unit price above one dollar. One hundred and eighty-seven IPOs were eliminated from the sample because they included other rights, such as warrants. Twenty-five offerings of ADRs on foreign stocks and 24 IPOs that did not appear on COMPUSTAT were excluded. (Out of the 24 non-COMPUSTAT firms, 22 still traded in 1991, one merged into another firm, and one stopped trading after one year.) Eight hundred and eighty-four firms met all four requirements.

For each of these firms, we calculated both an initial return and a two-year excess return. The initial return was calculated using the offer price obtained from the *Directory of Corporate Financing* and the closing price for the first trading day, which was obtained primarily from CRSP. In any instance where the closing price was not available from CRSP, the price was obtained from the *S&P Daily Stock Price Record*. The two-year return was calculated for each stock beginning with the second trading day and ending on the same calendar day two years later. Using daily data, we computed a two-year geometric return. For each firm, we derived an excess return by subtracting the geometrically calculated CRSP value-weighted return for the same period.

In a few cases, the firm ceased trading, either because of a takeover or bankruptcy before the end of the two-year period. For takeover firms, we used the takeover price as the final price for the IPO. Bankrupt firms were assigned a price equal to the final per-share distribution value to shareholders. If none was found, we used a price of zero as the final market price. Calculating the long-run performance over a three-year period instead of a two-year period yields similar results.

We collected financial information on the IPO firms from COMPUSTAT. We obtained missing values from the first annual report filed after the firm went public. There are several financial ratios that are relevant to our study. We used the debt ratio (calculated as the ratio of the long-term debt to total assets), net income over total assets, and market-to-book value as some of our proxies for the firm’s *ex ante* risk and financial stability. The percentage of common stocks held by insiders was obtained from *Spectrum* and the 10-K reports issued immediately after the IPO. (Insider holdings are defined by *Spectrum* as beneficial holding as reported under the SEC requirements in the proxies.) We collected the issue price and the number of shares offered from the *Directory of Corporate Financing*.

We based our proxy of the underwriter reputation on its capital. For each IPO, we recorded the leading underwriter as disclosed in the *Directory of Corporate Financing*. Using
we collected information from the 1986 Security Industry Yearbook. Underwriters were ranked from highest to lowest according to their equity capital. We assigned a rank of one to the largest firm, two to the next, and so on. Therefore, a smaller underwriter prestige number indicates that the IPO firm used a bigger and, presumably, higher-quality underwriter. We also compared our ranking with the one used by Carter and Manaster (1990). Seventy-six underwriters are in both groups. The Spearman Rank Correlation coefficient between their ranking and ours was 0.86.

The data about which auditors were employed in our IPO sample were collected from SEC filings and issues of Who Audits America. Accounting researchers have often used a dichotomous approach when viewing auditing firms: Big Eight firms and "others." In our univariate tests, we follow this tradition and define the Big Eight firms as prestigious and the non-Big Eight as less prestigious.

However, in recent years, in part because of consolidation in the industry, a three-tier level of firms has developed. For example, the 1988 total clients sales for the Big Eight firms ranged from $299,460 million to $683,573 million, while the second tier of seven firms had total clients sales between $2,308 million to $14,576 million. No other firm reported total clients sales greater than $1.000 million. As mentioned earlier, perceived differences in audit quality between the Big Eight and smaller firms has led to the Big Eight firms receiving an audit premium over both the second-tier and small firms for similar-size clients. To examine the effect of auditor reputation on initial underpricing, Beatty (1989) uses two surrogates. He finds that the Big Eight clients’ stocks exhibit lower first-day returns. However, he also finds that the Big Eight/non-Big Eight dichotomy may measure reputation capital with error for the smaller Big Eight and larger second-tier firms. We therefore repeat our univariate comparison dividing the non-Big Eight firms into two groups. The first group ("second-tier") includes the largest non-Big Eight firms.

Moreover, given our sample size and the data available, we are able to fine-tune the ranking of the auditor’s reputation in the multivariate regression analysis. Instead of relying on a two-way (Big Eight and non-Big Eight) or a three-way (Big Eight, second-tier, and small firm) split, we rank all Big Eight and second-tier auditors from zero to 14, based on their 1988 total clients sales. We assign zero to the largest auditor and 14 to the smallest. Because of an insufficient number of observations for each of the small auditors, all small-firm auditors are ranked 15.

B. Descriptive Data of Sample firms

Consistent with prior studies, the 884 IPOs in the sample experienced significant underpricing with a first-day return averaging 7.75%. The average value of the stock issue of $27.68 million and median asset size of $30.26 million documents that IPOs are relatively small firms from diverse industries and represent 284 four-digit SIC codes.

Table 1 lists the auditors by number of clients. IPOs are divided into three groups, based on auditor size: Big Eight, second tier, and small firm. The primary difference between the second two groups, other than size, is that the small-firm CPAs are primarily regional operations. Approximately 84% (742 firms) used a Big Eight auditor to go public. This percentage is substantially higher than the 58% reported for IPOs examined by Beatty (1989) during the 1975-84 period. There are two possible explanations for the differences. First, all "best efforts" underwriting agreements and IPOs with an initial stock price of less than a dollar are eliminated from this study. These often represent the smallest firms, who are more likely to be represented by smaller auditors. Second, substantial consolidations occurred during the 1980s that increased the size differences between the Big Eight and the other audit firms. This may have led to a further migration to Big Eight auditors because of market demands.

Column 3 of Table 1 provides evidence that the differential underpricing of IPOs conditional on auditor type found earlier by Beatty (1989) still persists in this later period. Clients of Big Eight firms experienced the smallest average underpricing with a 6.87% first-day return. In comparison, the first-day return for second-tier and small-firm clients averaged 10.25 and 15.13%, respectively.

III. Results

In this section, we present the empirical analysis regarding our three hypotheses. In the first subsection, we analyze the determination of the auditor choice. In the second subsection, we address the issue of how the auditor choice affects the market reaction to the new issue, and in the third subsection, we examine the relationship between long-term performance and auditor reputation.

A. Determinants of the Auditor’s Choice

If reputable auditors do discriminate, based on some quality attributes, among prospective firms seeking to go public, we would expect those auditors to be associated with IPOs that at least a priori seem to be less risky.
### Table 1. Mean Initial Return and Number of Clients, by Auditor

Auditors of 1984-1988 initial public offerings are listed by rank based on total billings in 1988 (shown in parentheses). Initial return is calculated from the offer price and the price at the end of the first day of trading.

<table>
<thead>
<tr>
<th>Firm</th>
<th>Number of Clients</th>
<th>Mean Initial Return</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Big Eight</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peat Marwick Mitchell (4)</td>
<td>145</td>
<td>0.0890</td>
</tr>
<tr>
<td>Arthur Andersen (2)</td>
<td>126</td>
<td>0.0550</td>
</tr>
<tr>
<td>Coopers &amp; Lybrand (3)</td>
<td>95</td>
<td>0.0586</td>
</tr>
<tr>
<td>Ernst &amp; Whinney (5)</td>
<td>94</td>
<td>0.0614</td>
</tr>
<tr>
<td>Arthur Young (7)</td>
<td>81</td>
<td>0.0753</td>
</tr>
<tr>
<td>Price Waterhouse (1)</td>
<td>71</td>
<td>0.0741</td>
</tr>
<tr>
<td>Touche Ross (8)</td>
<td>70</td>
<td>0.0513</td>
</tr>
<tr>
<td>Deloitte, Haskins &amp; Sells (6)</td>
<td>60</td>
<td>0.0813</td>
</tr>
<tr>
<td>Group Total</td>
<td>742</td>
<td>0.0687</td>
</tr>
<tr>
<td><strong>Second Tier</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laventhol &amp; Horwath (9)</td>
<td>21</td>
<td>0.0750</td>
</tr>
<tr>
<td>Grant Thornton (10)</td>
<td>19</td>
<td>0.1376</td>
</tr>
<tr>
<td>KMG Main Hurdman (11)</td>
<td>15</td>
<td>0.1604</td>
</tr>
<tr>
<td>Kenneth Leventhal (16)</td>
<td>10</td>
<td>0.0111</td>
</tr>
<tr>
<td>Seidman &amp; Seidman (12)</td>
<td>8</td>
<td>0.1292</td>
</tr>
<tr>
<td>McGladrey (13)</td>
<td>6</td>
<td>0.0522</td>
</tr>
<tr>
<td>Oppenheimer, Appel &amp; Dixon (15)</td>
<td>2</td>
<td>0.1246</td>
</tr>
<tr>
<td>Group Total</td>
<td>81</td>
<td>0.1025</td>
</tr>
<tr>
<td><strong>Third Tier</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>61</td>
<td>0.1513</td>
</tr>
<tr>
<td><strong>Sample Total</strong></td>
<td>884</td>
<td></td>
</tr>
</tbody>
</table>

Earlier literature indicates two relevant measures: firm size (e.g., Ritter, 1984), and investment banker reputation (e.g., Beatty, 1989, Carter and Manaster, 1990, and Michaeley and Shaw, 1994). Large IPOs and IPOs issued by the more prestigious investment bankers are perceived as less risky. These measures are known to investors prior to the IPO date. The two other risk proxies we use are the debt-to-assets ratio and net income over total assets (NITA, calculated as the net income before extraordinary items relative to total assets), both of which are taken from the first annual report published after the firm went public. Bankruptcy models, beginning with Altman (1968), have consistently found that investment risk can be explained through debt-to-assets and NITA levels. The higher the debt-to-assets level and the lower NITA, the riskier the firm is. It should be noted that although we collected the information on the last two variables from the first annual report after the IPO, we believe that these values serve as a good proxy for their values prior to the IPO, since they are based on book rather than on market values.

Mean values for these variables are included in Panel A of Table 2. We found two significant differences between the Big Eight and the non-Big Eight clients. First, while the Big Eight firms took public IPOs with total value of assets of $326 million, the non-Big Eight clients averaged only $250 million. The mean assets’ value, however, is highly skewed because of several very large IPOs. The median-size IPO associated with one of the Big Eight firms is $33.4 million, and $13.9 million for the non-Big Eight IPOs. The difference
Table 2. Determinants of Auditor Choice

We analyze the determination of the auditor choice using four ex ante proxies for the IPO quality: book value of assets, the prestige of the leading underwriter (1 is the most prestigious and 179 is the least prestigious), long-term debt to total assets (DBTAST), and net income over total assets (NITA). In Panel A, we compare the mean values of these variables between the Big Eight and the non-Big Eight clients. In Panel B, we report the results of an order probit regression in which the dependent variable is the auditor prestige (CPA), where 0 is the highest and 15 is the lowest. Independent variables are the underwriter prestige, book value of assets, DBTAST, NITA, and a set of year and industry dummy variables. Chi-square is reported in parentheses and the significance level in brackets.

### Panel A. Univariate Differences

<table>
<thead>
<tr>
<th>Variable</th>
<th>Big Eight (n = 742)</th>
<th>Non-Big Eight (n = 142)</th>
<th>t-Statistic of Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Assets (book value)</td>
<td>326.08</td>
<td>250.26</td>
<td>4.83</td>
</tr>
<tr>
<td>Underwriter Prestige</td>
<td>36.53</td>
<td>57.11</td>
<td>-5.60</td>
</tr>
<tr>
<td>DBTAST (%)</td>
<td>21.32</td>
<td>24.42</td>
<td>-1.474</td>
</tr>
<tr>
<td>NITA (%)</td>
<td>3.42</td>
<td>2.62</td>
<td>0.66</td>
</tr>
</tbody>
</table>

### Panel B. Order Probit Regression

\[
CPA = 1.453 + 0.0034 \text{Underwriter Prestige} - 0.0796 \text{Total Assets} + 0.3203 \text{DBTAST} + 0.1882 \text{NITA} + \text{Year and Industry Dummies}
\]

\[
(12.77) \quad (6.936) \quad (3.382) \quad (4.415) \quad (0.427) \quad [0.0001] \quad [0.0001] \quad [0.0659] \quad [0.0351] \quad [0.674]
\]

The ordered probit regression results are reported in Panel B of Table 2. The underwriter prestige variable is positive and significant, indicating that more prestigious underwriters are associated with more prestigious auditors. The negative (and significant) coefficient of the size variable shows that smaller IPOs are more likely to be associated with less prestigious auditors. The debt-to-assets ratio coefficient is positive and significant, consistent with the assertion that larger, more prestigious auditors choose to be associated with IPO firms that carry less debt and are consequently less risky. The NITA coefficient is positive but insignificantly different from zero.\(^7\)

---

\(^2\)The ordered probit is the appropriate regression technique to use, given that the independent variable is a discrete categorization with some ranking order.

\(^7\)We have also considered an alternative measure of return on assets: Instead of net income to total assets, we measure the net income plus interest expenses (after taxes) relative to total assets. The results are practically the same as the ones reported in Panel B of Table 2. Finally, the OLS regression yields very similar results.
riskier, as well. Firms with less tangible assets, high levels of goodwill, and patents are likely to have higher market-to-book value. These firms are usually having relatively few tangibles; therefore, their market-to-book value is higher. Firms with less tangible assets, high levels of goodwill, and patents are likely to have lower market-to-book value. These firms are usually riskier, as well.

We repeated the experiment when the dependent variable is either zero (for a Big Eight auditor), one (for a second-tier auditor), or two (for a small-firm auditor). None of our conclusions changed.

These results seem to confirm Hypothesis 1: Larger more prestigious CPA firms tend to associate themselves with IPOs that are a priori less risky.\(^8\)

### B. The Effect of Auditor Choice on the Market Reaction to the Public Offering

Judging from the market reaction to the IPOs on the first day of trading, it seems that the market indeed perceives IPOs associated with the Big Eight as less risky than other IPOs. As we report in the first row of Table 3, the underpricing increases as the prestige of the auditor decreases. The average underpricing is 6.9% and 12.4% for Big Eight clients and non-Big Eight clients, respectively. The difference is significant with a t-statistic of 2.97.\(^9\)

Two other variables, insiders’ ownership and institutional holdings, have been mentioned in the literature as correlated with risk of the IPO. Grinblatt and Hwang (1989) and Leland and Pyle (1977) suggest that outside investors’ uncertainty can be partially resolved by a higher level of insider ownership. Benveniste and Spindt (1989) and Rock (1986) maintain that a higher percentage held by institutional investors is indicative of a higher-quality IPO. Empirically, we do not find any significant difference in either the institutional ownership or the percentage held by insiders between IPOs associated with the Big Eight and those associated with the non-Big Eight: Institutions own 27.1% of stocks of IPOs audited by Big Eight firms and 28.4% of stocks in the ones audited by one of the non-Big Eight firms. Insider ownership in the non-Big Eight clients is 41.48%, compared to an average holding of 37.84% in the Big Eight clients.

The results in Beatty (1989) suggest that there might be an inverse relationship between non-Big Eight auditor prestige and the need to change to a Big Eight auditor. Small firms with regional auditors might have the most to gain by switching to a Big Eight auditor. Indeed, Carpenter and Strawser (1971) find that the primary reason firms change auditors prior to an IPO is to obtain the services of a “nationally known firm.” This survey would suggest that the small-firm auditor clients would have the most to gain by changing auditors, since small-firm auditors do not have a national presence. However, these firms, being generally smaller in size, may also have a harder time finding a reputable auditor (either because the expense outweighs the benefit or because reputable auditors will shy away). Thus, it is likely that such firms will have the highest degree of ex ante uncertainty and, therefore, the highest degree of underpricing. On the other hand, a firm employing a second-tier audit firm may believe it can convey quality without ending a relationship with its current accountant. It might view an auditor change as either unnecessary or too.

### Table 3. Comparison of IPO Characteristics and Performance Based on Auditor Choice

Univariate analysis of the differences in initial return and characteristics between IPOs that are associated with the Big Eight CPAs and the ones that are not. Mean values are reported in the body of the table (t-statistics in parentheses).

<table>
<thead>
<tr>
<th>Variable(^8)</th>
<th>Big Eight (n = 742)</th>
<th>Non-Big Eight (n = 142)</th>
<th>t-Statistics of Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Return (%)</td>
<td>6.87 (13.17)</td>
<td>12.39 (6.99)</td>
<td>2.972</td>
</tr>
<tr>
<td>MVBV</td>
<td>3.037</td>
<td>3.466</td>
<td>-1.862</td>
</tr>
<tr>
<td>Institutional Holdings (%)</td>
<td>27.17</td>
<td>28.45</td>
<td>-0.476</td>
</tr>
<tr>
<td>Insider Holdings (%)</td>
<td>37.84</td>
<td>41.48</td>
<td>-1.002</td>
</tr>
</tbody>
</table>

\(^8\)Initial return is calculated as the difference between the closing price on the first day of trading and the offer price, relative to the offer price. MVBV equals the market-to-book value of common equity. Institutional and insider holdings are the percentage of shares held, as reported in *Spectrum* for the month after the offering.

\(^9\)In contrast to Hypothesis 1 (and to our empirical findings), Datar, Feltham, and Hughes (1991) suggest that the value of audited reports increase in the riskiness of future cash flows. This leads to a prediction that riskier firms will be more likely to employ a higher-quality auditor. However, tests by Feltham, Hughes, and Simunic (1991) find only weak support for this assertion. This prediction is also inconsistent with prior empirical findings regarding the association between underwriters and the type of firms that go public: Higher-prestige underwriters are associated with less, rather than more, risky IPOs.

Also consistent with this assertion is the finding that the market-to-book value (MVBV) is significantly higher for IPOs that are not associated with one of the Big Eight CPA firms. Non-Big Eight clients are considered riskier, having relatively fewer tangible assets; therefore, their market-to-book value is higher. Firms with less tangible assets, high levels of goodwill, and patents are likely to have higher market-to-book value. These firms are usually riskier, as well.
Table 4. Univariate Statistics for the Initial Return for the 1984-1988 Initial Public Offerings, by Auditor

Initial return is calculated from the offer price and the price at the end of the first trading day. The variance is calculated based on the within-group return differences. The firm-size ranking is shown in parentheses.

<table>
<thead>
<tr>
<th>Firm</th>
<th>Number of Clients</th>
<th>Mean Return</th>
<th>Median Return</th>
<th>Variance</th>
<th>Minimum Return</th>
<th>Maximum Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Eight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peat Marwick Mitchell</td>
<td>145</td>
<td>0.0890</td>
<td>0.0173</td>
<td>0.0400</td>
<td>-0.0536</td>
<td>1.0765</td>
</tr>
<tr>
<td>Arthur Andersen</td>
<td>126</td>
<td>0.0550</td>
<td>0.0167</td>
<td>0.0135</td>
<td>-0.0563</td>
<td>0.8750</td>
</tr>
<tr>
<td>Coopers &amp; Lybrand</td>
<td>95</td>
<td>0.0586</td>
<td>0.0294</td>
<td>0.0105</td>
<td>-0.1092</td>
<td>0.4167</td>
</tr>
<tr>
<td>Ernst &amp; Whinney</td>
<td>94</td>
<td>0.0614</td>
<td>0.0214</td>
<td>0.0101</td>
<td>-0.1760</td>
<td>0.4286</td>
</tr>
<tr>
<td>Arthur Young</td>
<td>81</td>
<td>0.0753</td>
<td>0.0317</td>
<td>0.0168</td>
<td>-0.0517</td>
<td>0.7940</td>
</tr>
<tr>
<td>Price Waterhouse</td>
<td>71</td>
<td>0.0741</td>
<td>0.0310</td>
<td>0.0158</td>
<td>-0.0827</td>
<td>0.6406</td>
</tr>
<tr>
<td>Touche Ross</td>
<td>70</td>
<td>0.0513</td>
<td>0.0195</td>
<td>0.0199</td>
<td>-0.2500</td>
<td>0.7800</td>
</tr>
<tr>
<td>Deloitte, Haskins &amp; Sells</td>
<td>60</td>
<td>0.0813</td>
<td>0.0218</td>
<td>0.0279</td>
<td>-0.1000</td>
<td>1.000</td>
</tr>
<tr>
<td>Group Averages</td>
<td>742</td>
<td>0.0687</td>
<td>0.0213</td>
<td>0.0202</td>
<td>-0.2500</td>
<td>1.0765</td>
</tr>
<tr>
<td>Second-Tier Firms</td>
<td>81</td>
<td>0.1025</td>
<td>0.0260</td>
<td>0.0463</td>
<td>-0.0620</td>
<td>1.3681</td>
</tr>
<tr>
<td>Small Firms</td>
<td>61</td>
<td>0.1513</td>
<td>0.0784</td>
<td>0.0408</td>
<td>-0.2987</td>
<td>0.7200</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>884</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

costly. We examine this possibility by first calculating the mean first-day return for each of the three auditors subsamples.

The Big Eight clients experience the smallest initial-day return (6.87%) followed by the second-tier clients with an initial return of 10.25%. The small-firm clients experience the highest initial return, 15.13%. All differences are significant. Consistent with the analysis in the previous section, the Big Eight clients use the most prestigious underwriters, followed by the second-tier clients. The differences in underwriters' prestige among the three groups are significant at the 0.05 level. Also, the market-to-book value is significantly higher for the small-firm clients than for the Big Eight clients. The level of institutional and insider holdings is insignificantly different among the three groups.

There are two reasons, however, why examination of the mean return alone may not reveal the entire picture. First, it is possible and quite likely that from the auditor's perspective, a successful IPO is one that does not experience negative first-day return, while putting less weight on the extent to which its return is positive (as long as it is positive). In other words, the cost associated with bad performers is higher than the gain associated with good performers. Thus, the mean and variance of the distribution may not reveal the entire picture regarding the relationship between auditor reputation and IPO quality. Second, recent literature (e.g., Hanley, Kumar, and Sequin, 1993, and Rudd, 1993) suggests that the return distribution of IPOs on the first few days of trading is highly non-normal. For these two reasons, we analyze the return distribution, conditional on the auditor's reputation, in more detail.

We first calculate the median and the second, third, and fourth moments of the distribution. As expected, for each of the CPA groups, the median first-day return (reported in Table 4) is considerably below the mean: a median of 2.13% for the Big Eight IPOs, 2.60 for the second-tier IPOs, and 7.84 for the small-firm IPOs. The cross-sectional variance of the Big Eight clients is about half the variance of the small-firm clients or of the second-tier firms (also reported in Table 4). The skewness of the Big Eight IPOs is 3.472, compared with 4.177 for the second-tier and 1.012 for the small-firm IPOs. All are significantly different from zero (symmetric distribution) at the 0.001 level. Likewise, the kurtosis of the Big Eight, second-tier, and small-firm IPOs is 16.37, 20.87, and 0.81, compared with a kurtosis of 3 for a normal distribution. The Big Eight and the second-tier kurtosis is significantly different from 3 at the 0.001 level.

In Figure 1, we plot the first-day return distribution. Three conclusions can be drawn from the figure. First, the unconditional distribution is highly asymmetric. Only 19.6% of the observations are below zero, 11.6% of the IPOs in the sample experience no price movement, and almost 70% of
Figure 1. Percentages of 884 IPOs Occurring in 1984-88 at Each First-Day Return Level Conditional on Auditor Employed.

**BIG 8**

- 35%
- 30%
- 25%
- 20%
- 15%
- 10%
- 5%
- 0%

**SECOND TIER**

- 35%
- 30%
- 25%
- 20%
- 15%
- 10%
- 5%
- 0%

**SMALL FIRMS**

- 20.00%
- 15.00%
- 10.00%
- 5.00%
- 0.00%

**ALL FIRMS**

- 35%
- 30%
- 25%
- 20%
- 15%
- 10%
- 5%
- 0%

PERCENT RETURN
the IPOs experience positive price movement on the first day. Second, the IPOs' first-day return distribution differs across the three auditing groups. The small-firm IPOs have more observations at the two extremes. More than 28% of the small-firm clients experience a first-day return above 20%, compared with 10% of the Big Eight clients. More than 5% of the small-firm clients experienced a first-day return of less than 5% compared with 2% of the Big Eight clients and 1.5% of the second-tier clients. Third, the small-firm IPOs' returns experience the least peakiness at zero (consistent with their relatively low kurtosis). If price support can account for this evidence, as suggested by Rudd (1993), then it seems that IPOs associated with more prestigious auditors are stabilized to a larger extent than the ones associated with less reputable auditors.

To analyze the marginal effect of the auditor type, we run a multivariate regression where the independent variables are the auditor type (CPA), the log of the offer size (Ivalue), the underwriter prestige variable (Underwriter), and year and industry dummies. The largest CPA firm is assigned the value of zero, and the smallest second-tier auditor is assigned the value of 14. All small CPA firms are grouped together and assigned the value of 15. The dependent variable is the first-day return (return). The results are presented in regression (1).

\[
\text{return} = b_0 + b_1 \text{CPA} + b_2 \text{Ivalue} + b_3 \text{Underwriter} + \text{Yr. & Ind. Dummies} \\
(0.129) \\
(1.97) \\
(1.93) \\
(0.0013) \\
(0.0024) \\
(0.01) \\
(6.66) \\
R = 0.0817
\]

The auditor's prestige variable is positive and significant, indicating that lower-prestige auditors' IPOs experience higher initial returns even after controlling for the size of the IPO and the prestige of its leading underwriter. This result is consistent with the univariate analysis. It is also consistent with our findings in the previous section. Prestigious auditors are associated with less risky IPOs. The analysis of this section indicates that the market indeed perceives it as such. Similar to previous studies (e.g., Michaely and Shaw, 1994), the positive coefficient on the underwriter reputation variable indicates that more reputable underwriters bring to the market less risky IPOs.

Consistent with Michaely and Shaw (1994), we find that the univariate analysis shows that larger IPOs experience lower first-day return. However, in the multivariate analysis, when the underwriter prestige is also accounted for, the coefficient on IPO size reverses itself. This result is consistent with the assertion that, for a given investment banker and auditor prestige level, larger issues show more underpricing. These results can be interpreted as showing that investment banker and auditor reputations resolve some of the uncertainty about the quality of the IPO. Larger issues, however, require greater distribution efforts by the investment banker (Baron, 1982) and the dispersion of the issue to a larger group of investors; hence, there is deeper underpricing. It is also possible that the positive and significant size coefficient is, at least partially, a result of the "partial adjustment" phenomenon (Hanley, 1993, and Ibbotson, Sindelar, and Ritter, 1988). After the auditor and investment banker are chosen and the preliminary prospectus is issued, if the demand is strong, there is a higher initial return, and the offering price and number of shares are sometimes adjusted upward.\(^9\)

To summarize, Hypothesis 2—that the market perceives IPOs that are associated with more prestigious firms as less risky—is borne out by the data. These firms are also brought to market with lower market-to-book values, which are usually associated with lower-risk firms. Their average first-day return and their cross-sectional variance are both lower. Further, there are fewer IPOs associated with more prestigious firms experiencing extreme negative first-day returns compared to those associated with the small-firm auditors. Even after controlling for the prestige of the leading underwriter, issue size, and its industry, we find that first-day return and auditor reputation are negatively correlated.

C. The Association Between IPOs Long-Run Performance and the Choice of Auditor

The evidence presented thus far is consistent with the assertion that more prestigious CPA firms are associated with less risky IPOs. Judging from the market's reaction to those IPOs, the market also seems to perceive them as less risky. The third issue is whether those intentions (by the audit firms) and expectations (by the market) are also consistent with the IPOs' long-run performance. As we have argued in the previous section, it is quite likely that from the perspective of the CPA firms, long-run performance is a more relevant measure than the initial-day performance.

Even though the Big Eight clients were larger and used more prestigious underwriters, no differences were found in future stock performance. Both the Big Eight and non-Big Eight clients underperformed the market by 13.9% and 13.4%, respectively, during the first two years after the IPO. While only the Big Eight client stock performance is significantly different from zero, there are no significant differences...
differences between the two groups. It is worth comparing these results to Michaely and Shaw (1994) and Ritter (1991). Ritter finds similar underperformance for a group of firms that went public between 1970 and 1984. Since his efforts were not focused on the relationship between long-term performance and auditors, his analysis does not address this issue. Michaely and Shaw (1994) show that the long-run performance of IPOs issued by reputable investment bankers is significantly better than the performance of those issued by less reputable investment bankers. Moreover, IPOs issued by reputable investment bankers performed as well as the market. This does not seem to be the case with IPOs that are associated with reputable auditors.11

We also analyzed the long-term performance based on a three-way split of auditors. The clients of the small-firm auditors demonstrated the poorest future stock performance. They averaged a -37.24% return. The Big Eight clients came next with an average performance of -13.91%. The second-tier clients actually outperformed the market by 4.53%. The difference between the latter two groups, however, is not significant. The stronger performance of the second-tier clients is surprising, considering they had smaller stock issues and used less prestigious underwriters. To isolate the marginal effect of the auditor reputation on performance, we examine the conditional effect of the CPA firm via a regression analysis.

The dependent variable is the two-year excess return (2 yr. EXR), and the independent variables are the auditor reputation (CPA), zero for most prestigious and 15 for least prestigious; the log of the offer size (lvalue); the underwriter prestige (Underwriter), one is the most prestigious and 179 is the least prestigious; and a set of year and industry dummy variables.

\[
2 \text{ yr. EXR} = b_0 + b_1 \text{CPA} + b_2 \text{lvalue} + b_3 \text{Underwriter} + \text{Yr. & Ind. Dummies}
\]

\[
(0.898) \quad (0.053) \quad (1.014)
\]

\[
\begin{align*}
&= b_3 \text{Underwriter} + 0.0428 \text{lvalue} \\
&\quad -0.1414 \quad -0.0004 \\
&\quad (0.053) \\
&\quad (2.047)
\end{align*}
\]

The underwriter’s coefficient is significantly negative, implying that lower-prestige underwriters are associated with IPOs whose performance is poorer in the long term. The auditor coefficient, on the other hand, is insignificantly different from zero, indicating that the long-run performance may not be related to the auditor’s reputation. However, it is possible that the insignificance of the auditor coefficient is due to the nonmonotonic relation between long-run performance and auditor’s reputation documented earlier. We investigate this issue further by examining the long-term return distribution in more detail.

As the information in Figure 2 and Table 5 show, the superior performance of the second-tier group over the Big Eight group is not always supported by our alternative measures. The median two-year excess return is -38.9% for the Big Eight IPOs and -36.4% for the second-tier IPOs. (The median of the small-tier IPO group is consistent with prior analysis: Their median two-year excess return is -58.2%.) More than two-thirds of the entire IPO sample underperformed the market in the first two years of operation. Of the issues associated with the small CPA firms, 71.13% underperformed the market, compared with 61.73% and 68.11% of the issues associated with the second-tier and Big Eight firms. On the high end, 23.46% of the second-tier IPOs underperformed the market by more than 50%. Only 18.33% of the IPOs associated with the Big Eight firms and 11.48% of the small-firm IPOs experienced such a performance.

As Table 5 shows, the poor performance of the Big Eight clients is not unique to a particular CPA firm. The two-year mean excess return is negative for seven out of eight firms’ IPOs, and the median is negative for all eight. This is striking. The small-firm IPOs had by far the lowest two-year mean and median excess return (-37.24% and -58.23%, respectively). It is interesting to note, however, that the cross-sectional variance of the second-tier IPOs is higher than the other two groups’ variance. It seems that the slightly better performance of the second-tier clients over the Big Eight clients is due to small number of outliers that experienced an excess return of over 100%. It is important to recognize, however, that most of our measures (with the exception of the mean excess return for the second-tier clients) indicate poor performance by all three groups.

We can summarize the findings of this subsection as follows. First, over two-thirds of the IPOs in our sample underperformed the market by all measures in the first two years of operations. Those that are associated with the small-firm CPAs experienced the worst performance with a mean excess return of -37% and a median excess return of -58%. Both the Big Eight clients and the second-tier clients underperformed the market. The second-tier clients experienced a slightly better performance, but the difference is insignificant. Thus, our investigation of the third hypothesis—that auditor prestige is positively related to long-run performance—yields less-than-crisp results. While the lowest prestige CPA group is indeed associated with the

---

11It is worth noting at this stage of the analysis that, since we do not have a solid understanding of the long-run performance of IPO firms (average negative excess returns), conclusions from our empirical analysis about auditor reputation effect should be made with caution.
Figure 2. Percentages of 884 IPOs Occurring in 1984-88 at Each Two-Year Excess Return Level Conditional on Auditor Employed
Table 5. Univariate Statistics for the Two-Year Excess Return for the 1984-1988 Initial Public Offerings, by Auditor

The two-year excess return (D2) is equal to the geometrically calculated firm return minus the CRSP value-weighted market return. The variance is calculated based on the within-group return differences. The ranking based on firm size is shown in parentheses.

<table>
<thead>
<tr>
<th>Firm</th>
<th>Number of Clients</th>
<th>Mean 2 yr. EXR</th>
<th>Median 2 yr. EXR</th>
<th>Variance</th>
<th>Minimum Return</th>
<th>Maximum Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peat Marwick Mitchell</td>
<td>145</td>
<td>-0.2024</td>
<td>-0.3526</td>
<td>0.6446</td>
<td>-1.2958</td>
<td>4.8957</td>
</tr>
<tr>
<td>Arthur Andersen</td>
<td>126</td>
<td>-0.0613</td>
<td>-0.4749</td>
<td>1.6022</td>
<td>-1.2194</td>
<td>8.8437</td>
</tr>
<tr>
<td>Coopers &amp; Lybrand</td>
<td>95</td>
<td>-0.1694</td>
<td>-0.3639</td>
<td>0.6657</td>
<td>-1.6030</td>
<td>2.4912</td>
</tr>
<tr>
<td>Ernst &amp; Whinney</td>
<td>94</td>
<td>-0.3165</td>
<td>-0.4481</td>
<td>0.5149</td>
<td>-1.6229</td>
<td>2.2089</td>
</tr>
<tr>
<td>Arthur Young</td>
<td>81</td>
<td>-0.0394</td>
<td>-0.4373</td>
<td>1.1178</td>
<td>-1.1930</td>
<td>4.9443</td>
</tr>
<tr>
<td>Price Waterhouse</td>
<td>71</td>
<td>0.0046</td>
<td>-0.0838</td>
<td>0.6336</td>
<td>-1.1372</td>
<td>2.7095</td>
</tr>
<tr>
<td>Touche Ross</td>
<td>70</td>
<td>-0.1856</td>
<td>-0.5642</td>
<td>0.7947</td>
<td>-1.2932</td>
<td>2.2467</td>
</tr>
<tr>
<td>Deloitte, Haskins &amp; Sells</td>
<td>60</td>
<td>-0.0735</td>
<td>-0.3248</td>
<td>1.0552</td>
<td>-1.4103</td>
<td>3.3743</td>
</tr>
<tr>
<td><strong>Big Eight</strong></td>
<td><strong>742</strong></td>
<td><strong>-0.1391</strong></td>
<td><strong>-0.3894</strong></td>
<td><strong>0.8927</strong></td>
<td><strong>-1.6229</strong></td>
<td><strong>8.8437</strong></td>
</tr>
<tr>
<td>Second-Tier Firms</td>
<td>81</td>
<td>0.0453</td>
<td>-0.3639</td>
<td>1.7844</td>
<td>-1.3332</td>
<td>6.0151</td>
</tr>
<tr>
<td>Small Firms</td>
<td>61</td>
<td>-0.3724</td>
<td>-0.5823</td>
<td>1.1119</td>
<td>-1.5659</td>
<td>5.4740</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>884</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

worst-performing IPOs, it is disturbing to note that even the most prestigious CPA firms are associated with many poorly performing IPOs. These results are also in contrast with the relationship between the underwriters' reputations and long-term performance of IPOs. As the multivariate regression indicates, more reputable underwriters are associated with better long-term performance IPOs. (See also Michaely and Shaw, 1994).

IV. Concluding Remarks

This paper investigates three aspects of the relationship between auditors' prestige and the characteristics of the IPOs they take to the market. First, the theory tells us that IPOs associated with prestigious auditors are less risky. The reason is that prestigious auditors who wish to protect their reputation will screen the prospective IPOs and choose the less risky ones. Good firms have the incentive to pay the higher fees charged by those auditors so that their quality will be revealed to the market. Our results support this assertion. We find that the more prestigious auditing firms attempt to associate themselves with IPOs that are larger and have more tangible assets; whose underwriters are more reputable; and that, therefore, seem less risky.

Second, we investigate whether the market recognizes that an association with higher-prestige CPA firms conveys some information about the IPO riskiness. Consistent with this hypothesis, we find that auditor's prestige and underpricing are inversely related. These IPOs also experience lower cross-sectional variance and their market-to-book value is lower.

The third aspect of the relationship concerns those IPOs' long-term performance. Auditors of IPOs that experience substantial reduction in value are subject to potential lawsuits by equity holders. This is particularly relevant to the big, reputable auditors since they have "deeper pockets" and are therefore more likely to be subjected to such lawsuits and because they have more to lose from a damaged reputation. It is harder to draw definite conclusions from this aspect of our investigation. We find that the majority of IPOs, regardless of their auditors, underperform the market. A priori, one would expect that a lower proportion of IPOs associated with the more prestigious auditors will underperform the market. Consistent with this hypothesis, we find that the IPOs associated with the less reputable auditors perform the worst.

Finally, we offer some (tentative) suggestions to financial managers and investors concerning the implications of the paper's findings. First, IPOs associated with one of the Big Eight firms experience lower underpricing, even after controlling for size and the prestige of the underwriter. That is, those IPOs "leave less money on the table." From this perspective, all else being equal, it is worthwhile for a firm...
that is considering going public to associate itself with one of the more reputable auditing firms. From the investors' perspective, the evidence in Michaely and Shaw (1994), Ritter (1991), and this paper, appears to suggest that one should not purchase IPOs in the open market at all, regardless of the auditor associated with them. Taking the desire to purchase IPOs as a given (as illogical as it may be), there is no good reason why IPOs associated with one of the Big Eight firms should command a premium over an IPO associated with one of the second-tier firms. In the long term, the IPOs associated with the second-tier firms perform at least as well as the ones associated with one of the Big Eight firms. Finally, a buy-and-hold strategy of an IPO associated with a small-tier CPA firm has more than a 70% chance of underperforming the market, and the expected return is also negative.

References


