Audit fees and capital structure decision

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Abstract

Prior studies in the US have examined the impact of Big 6 auditors on financing decision and find that firms engaged with Big 6 auditors tend to issue equity as opposed to debt. Using a broad US sample, this study examines the impact of audit fees on capital structure decision. We use audit fees as a proxy for audit quality. Our results show that firms with higher audit fees tend to have higher leverage. We further find that firms paying high audit fees are more inclined to issue debt. As a robustness check we also use expected audit fees as a proxy for audit quality and find consistent results. These findings suggest that the impact of audit fees has significant effect on capital structure decision.

Audit fees and capital structure decision

1.   Introduction

The theoretical literature has long recognised that agency conflicts can affect companies financing decisions. Jensen and Meckling (1976) argue that managers favour the interests of stockholders and transfer wealth away from debt holders. To remove conflicts between owners–managers and owners–debt-holders (agency conflicts), client firms demand audit quality (Jenson and Meckling, 1976). They also report that an independent audit is expected to lend credibility to financial statements. Mansi, Maxwell and Miller (2004) document that the potential conflicts of interests among owners, managers, and other security holders create an environment in which an outside auditor may contribute significant value to investors. Generally that bigger, more esteemed audit firms have greater incentives to execute a high-quality audit at a high-quality audit pricing. Beatty (1989) finds that the higher than expected audit fees have been used to indicate greater audit quality supplied through greater auditor effort. They also find that firms are willing to pay higher audit charges for higher audit quality. Carcello, Harmanson, Neal and Riley (2002) contend that in the case where firms demand higher audit assurance, audit fees will be higher because more work is required. Stanley and DeZoort (2007) also report that the higher audit fees are associated with improved audit quality.

By focusing on audit fees we provide new empirical evidence and further insights regarding the existing theory of capital structure decision. Chang, Dasgupta and Hilary (2009) document that the companies audited by Big 6 firms (compared to those audited by small audit firms) are more likely to issue equity as opposed to debt. Reichelt and Wang (2010) document that auditors with industry expertise appear to charge higher audit fees, implying that they produce higher audit quality. Surprisingly, the impact of audit fees on capital structure is limited with the exception of Chang, Dasgupta and Hilary (2009). Since more than 75% of the US companies are engaged with

high quality auditors, further research is warranted in examining the audit quality using another proxy for audit quality measure. This motivates us to examine how capital structure decision is influenced by audit fees.

De Angelo (1981) classifies audit quality by two-dimensional description: first, detecting misstatements and errors in financial statement and second, reporting these material misstatements and errors. According to De Angelo's (1981) explanation, audit quality is a role of the auditor's ability to detect material misstatements (technical capabilities) and reporting the errors (auditor independence). Previous studies (see for example Francis, Reichelt, and Wang, (2005), Choi et al., (2008), Mitra, Deis and Hossain, 2009)), use audit fee as a key measure of audit quality. Willenborg (1999) states that it is widely perceived that bigger, more esteemed firms have greater incentives not to execute a low-quality audit at higher audit fees. In line with previous studies we employ audit fee as a proxy for audit quality to examine the impact on capital structure design. Myers and Majluf (1984) explain how adverse selection can lead companies to refuse to issue equity and forgo profitable projects. Chang et al. (2009) argue that a firm's financial statements play a key role in reducing this asymmetry, and their integrity is essential to well-functioning capital markets. But audit firms may not offer same level of audit service with same audit fee. Pervious literature documents that big audit firms are generally offer a higher level of audit quality associated with higher audit charges. This higher audit charges implies audit quality should reduce the agency conflicts between managers and outsiders and thus affect a firm's capital structure decision. Further, Watts and Zimmerman (1981) contend that large audit firms supply a higher quality audit because of greater monitoring ability. Knechel, Krishnan, Pevzner, Shefchik and Velury (2013) argue that society will consider a high-quality audit to be one that avoids economic problems for a company or the market. Skinner and Srinivasan (2012) show that the high quality firms employ high quality audit firms. Generally, audit firm size (quality audit) significantly plays a key role to decide the audit fee premium. Causholli and Knechel (2012) also find that the firms which hire top audit firms can enjoy lower costs of equity financing. Chang et al. (2009) argue that auditor quality is quite

critical to the success of corporate financing decisions as auditors play an important role in assuring the integrity of financial statements and reducing information asymmetry. They show that companies audited by big 6 auditors are able to make large equity issues which results in low debt in the capital structure. However, there is a scarcity of research of the impact of audit fees on the design of capital structure.

This paper builds on this research gap and aims to shed more light on audit fees by analysing capital structure decision taking into consideration one of the main determinant of capital structure i.e. agency conflicts. This study contributes to the literature in several ways. First, no studies have examined the impact of audit fees on capital structure decision. Second, our study provides new evidence whether audit fees are associated with the agency conflicts. Third, the finding of our study will help regulators, market participants and academics in developing the understanding in establishing the link between capital structure decision and audit fees.

The remainder of the paper is structured as follows: Section 2 focuses on prior research and hypotheses development. Section 3 outlines the basic elements of the research design while Section 4 discusses the main findings on the impact of audit fees on capital structure decision. Section 5 concludes the paper.

2. Prior research and hypotheses development

The debate on capital structure is ongoing in corporate finance literature since the work of irrelevance theory of Modigliani and Miller (1958). Several theories have been developed to explain the determinants of capital structure over the last five decades: Trade-off theory (see for example, Kraus and Litzenberger, 1973, Haugen and Senbet, 1988, DeAngelo and Masulis, 1980); Pecking order theory (see for example, Myers 1984 and Myers and Majluf 1984), Agency theory (see for example, Jensen and Meckling, 1976; Jenson 1986; Stulz 1990) and Market timing theory (see for

example, Hovakimian, Olper and Titman, 2001; Baker and Wurgler, 2002; Welch, 2004; Alti, 2006; Flannery and Rangan, 2006; Kayhan and Titman, 2007).

The "trade-off theory of capital structure assumes the existence of a target debt ratio where the marginal cost of an additional unit of debt; i.e., the cost of financial distress, equal the marginal benefits of an additional unit of debt. In other words capital structure is determined by a trade-off between the benefits of debt and costs of debt. The "pecking order theory" of capital structure assumes that firms prefer to finance growth opportunities with internal funds, debt, preferred equity and common equity, in that order. The "agency theory" predicts that managers favour the interests of stockholders and transfer wealth away from debt holders (see for example Jenson and Mackling, (1976). Jensen (1986) argues that debt is a governance device useful in reducing the conflicts between owners–managers and owners–debt-holders (agency conflicts). The "market-timing theory" suggests that equity market timing is an important aspect of corporate financial decision-making. This involves the exercise of issuing equity at a high price and repurchasing equity at a low price. Several authors have proposed further determinants of capital structure decisions: signalling aspects (Ross, 1977; Brealey, Leland and Pyle, 1977), risk aversion (Fama 1980) and firm history (Kayhan and Titman 2007).

In this paper we focus on one of the major determinant of capital structure decision i.e. agency costs (Jenson and Meckling 1976, Easterbrook 1984 and Jenson 1986). Based on (Jenson and Meckling, 1976) assumption that debt is helpful in reducing agency conflicts which exists between managers and shareholders and Mansi, Maxwell and Miller (2004) assumption that the potential conflicts of interests among owners, managers, and other security holders create an environment in which an outside auditor may contribute significant value to investors, we would expect that high audit fees paying firms are more leveraged firms and more inclined to issue debt.

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2.1   *Hypotheses development*

As pointed out in our discussion there are many theories to explain capital structure decisions. Among the multitude of explanations, we follow one strand of literature that seems to be especially promising in the context of audit fees: agency theory. Building on earlier work by Fama and Miller (1972), Jenson and Meckling (1976) were the first to argue that agency conflicts between managers and shareholders are related to capital structure decisions. The agency conflicts framework is a popular and insightful approach to gauge the relative importance to determine the capital structure. Agency conflicts refer to conflicts between managers and shareholders (see for example, Jenson and Meckling, 1976). They argue that agency theory's main purpose is to design alternative governance structures to mitigate the agency conflicts arising from the possible divergence of interests between shareholders (principal) and managers (agents). Jenson (1986) contends that too much equity can lead to free cash flow and conflicts of interest between managers and shareholders. Harris and Raviv (1990) demonstrate that debt mitigates the problem between investors and managers by giving investors the option to force liquidation if cash flows are poor. The free-cash-flow hypothesis of Jenson (1986) emphasizes the disciplinary role of debt as one effective way to reduce such agency conflicts. These control effects of debt are a potential determinant of capital structure (Jenson, 1986, p. 324). They also argue that client firms demand audit to remove conflicts between owners-managers and owners- shareholders.

In determining the capital structure, within an agency conflicts approach, phenomena such as audit fees proxy will be the important explanatory variable to mitigate the conflicts between managers and shareholders by issuing debt which means that audit pricing has positive influence on capital structure decision. Given the role of audit fees in improving agency conflicts, the following hypotheses are formulated:

H1: Firms with higher audit fees are high leverage firms (less equity oriented firms).

H2: Firms with higher audit fees are more inclined to issue debt instead of equity.

3. Research design

In this section we describe the sample selection procedure and distribution of sample, and variable definition.

3.1 Data and sample

Our primary source of data constitutes of US Public companies listed on NYSE/ASX during the period 2001-2012. Initially, we employ COMPUSTAT database to obtain a raw sample of 134,263 observations. In line with Chang et al. (2009), we drop 38,286 observations as these firm observations are in financial, insurance and real estate industries groups and their capital structures are also likely to be significantly different from this study's scope. We further exclude 4,866 observations from regulated utility firms as their financial policies are governed by regulatory requirements. We also exclude firms without reported total assets and firms which have total assets less than $5 million. We further exclude firms without audit fees data. The final sample consists of 39,896 firm years. Details of sample exclusions are provided in Table 1. Our sample compares more favourably with previous studies (see, e.g., Frank and Goyal (2009); Chang et al. 2009).

[INSERT TABLE 1 HERE]

Table 2 provides a descriptive statistics of our sample. Specifically, Panel A shows the year-by-year classification of firms; Panel B displays a categorization on the basis of industry sectors. Several features in Table 2 are worthy of note. The sample is predominantly from the manufacturing industry with 27,343 observations (approx.49.83% of the sample), while services industry are next most strongly represented.

[INSERT TABLE 2 HERE]

We employ Center for Research in Security Prices (CRSP) database to obtain stock return data. We collect firm annual accounting data from COMPUSTAT. The definition of variables is shown in tables 3. We retrieve Audit fee, and Big 6 audit firm information from audit analytics database at the last balance sheet date.

[INSERT TABLE 3 HERE]

3.2   Variable definitions

TDM

TDM is the ratio of debt in current liabilities and long term debt to market value of assets and market value of assets is the sum of market value of equity (Price close*shares o/s), debt in current liabilities, long term debt and preferred liquidation value minus deferred taxes and investment tax credits. Lemon, Roberts and Zender (2008) and Chang et al. (2009) have employed TDM as a measure of leverage for their study; in U.S context, Frank and Goyal (2009) also use TDM for their study; for the study of 39 countries, Fan, Titman and Twite (2012) have also employed TDM as a measure of leverage.

DISSUE

This is a dummy variable equals 1 if debt is issued, and 0 if equity is issued. Companies are defined as issuing debt (equity) when the net debt (equity) issued divided by total assets exceeds 5 percent. Cases where companies issue both debt and equity in a given fiscal year are omitted.

Audit quality

Previous studies (see for example Willenborg (1999)) argue that high quality audit should reduce the information asymmetry among the managers and Investors and thus affect a company's financing decision. We use Audit fees, and Big4 auditors as proxies for audit quality. We expect a positive relation between leverage and audit quality measure.

Francis (2004) shows that a higher audit fee implies higher audit quality either through greater auditor expertise or more auditor effort. In terms of this opinion we use this variable as a proxy of Audit quality. Audit fees have many benefits in measuring audit quality. Important benefit is that they are continuous. Thus, unlike the discrete measures, fees potentially capture subtle variations in quality.

DBAUDFIRM

This is a dummy variable. It takes value of unity if firms are audited by top 6 audit firms and otherwise zero. Skinner and Srinivasan (2012) shows that the high quality firms employ high quality audit firms. Chang et al. (2009) find that companies audited by Big 6 firms are more likely to issue equity as opposed to debt than are those audited by non-big 6 firms. Causholli and Knechel (2012) find that the firms which hire top audit firms can enjoy lower costs of equity financing. These arguments support to employ this variable as a proxy of Audit quality.

Size of the firm

We use the natural logarithm of total assets (LNTA) as a proxy for the size of firms which is in line with other studies in this area (e.g., Lemon, Roberts and Zender, 2008; Frank and Goyal, 2009; Chang et. al, 2009 and Fan, Titman and Twite, 2012). Warner (1977) and Ang et al. (1982) find that the ratio of direct bankruptcy costs to the firm value decreases as the firm value increases, suggesting that the impact of these costs on the borrowing decisions of large firms might be negligible. Titman and Wessels (1988) argue that larger firms are more diversified and have easier access to the capital market and borrow at more favourable interest rate. Consistent with these studies, we expect a positive relation between this proxy and leverage.

According to Frank and Goyal (2009), we also use mature (DMAT) as another proxy for firm size, which is a dummy variable that takes a value of one if the firm has been listed in the COMPUSTAT database for more than five years. We expect a positive relation between leverage and DMAT.

Growth opportunities

We proxy for growth opportunities by the book to market ratio, measured as the ratio of the book value of assets to the market value of assets. Firms with high book to market ratio have lower growth opportunities. Growth opportunities are intangible in nature and cannot be collateralized;

they are only valuable as long as the firm is alive. Their value will fall precipitously if the firm faces bankruptcy, which suggests that expected bankruptcy costs for firms with greater growth opportunities will be higher (Myers, 1984; and Harris and Raviv, 1990). Larger expected bankruptcy costs would in turn imply lower financial leverage. Consistent with Balachandran et el. (2008) we expect a positive relation between leverage and book to market ratio.

Previous literature (for example, Titman and Wessels (1988); Frank and Goyal (2009)) use capital expenditure over total assets (CAPEXTA) as another proxy for growth. Consistent with Frank and Goyal (2009), we expect a positive relation between leverage and capital expenditure over total assets ratio (CAPEXTA).

TANGIBILITY

This is computed as net PPE divided by total assets. Tangible assets lower the expected distress costs as it is easier for the outsiders to value the tangible assets. Tangibility also helps in reducing agency problems as this makes it difficult for shareholders to substitute high-risk assets for low risk ones. Consistent with Chang et al (2009) and Frank and Goyal (2009), we assume a positive relation between leverage and TANGIBILITY.

Industry Median Leverage (INDMEDLEV)

Generally industry median leverage is often used as a proxy for target capital structure (see for example, Hovakimian, Opler and Titman (2001); Flannery and Rangan (2006)). Hovakimian, Opler and Titman (2001) contend that firms actively adjust their target debt ratio towards the industry average. Trade off theory predicts that higher industry median leverage result in more debt. In line with Frank and Goyal (2009), we assume a positive relation between leverage and INDMEDLEV.

Past Stock Return (PSRETURN)

This is computed as the compounded annual stock return over 12 month's period. Previous literature (see for example, Welch 2004) argue that stock returns are very important in explaining

debt-equity ratios as firms do not rebalance capital structure changes caused by stock price shocks. According to market timing theory managers actively timing the equity markets to take advantage of mispricing and predict that book debt ratios should fall following high stock returns as firms issue equity. Time varying adverse selection could also result in a negative relation between stock prices and leverage. Consistent with Chang et al. (2009), we expect a negative relation between leverage and PSRETURN.

SHARETURN

This is computed as median value of monthly shares traded (volume) divided by shares outstanding over a 12-months period. Consistent with Chang et al. (2009), we expect a negative relation between leverage and this proxy.

Profitability (ROA)

This is measures as the ratio of earnings before interest, tax and debt to total assets (ROA). In line with previous studies (see for example (Titman and Wessels, 1988; Rajan and Zingales, 1995 and Wald, 1999) we assume a negative relation between leverage and this this proxy because a firm with high past profitability is expected to have access to the greater internal finance and tend to have less debt in their capital structure.

Risk

This is calculated by standard deviation of stock return over one year period (return from -260 to day -61,) and is denoted by stock return volatility (RETVOL). According to pecking order theory riskier firms have higher leverage because firms with volatile stocks suffer more from adverse selection costs. In line with the findings of Frank and Goyal (2009), we assume a positive between leverage and RETVOL. Previous literature (for example, Chang et. al, 2009) uses Unleveragezscore (UNLEVZSCORE) as a proxy for bankruptcy risk. We expect a positive relation between leverage and this proxy.

DVTAT

This is computed as dividends divided by total assets. Corporate policy is related to capital structure decisions as if current profits are positively correlated with future profits, then companies expecting higher future profits tend to pay more dividends and have lower debt ratio by retiring the debt. Companies expecting high future profits reflect higher debt capacities indicating that firms paying more dividends may choose higher debt ratio. In line with Chang et al. (2009), we assume a negative relation between leverage and this proxy.

R& D Expenses (RDSALE)

This is measured as research and development expenses scaled by total assets. According to pecking order theory R&D expenses affect debt positively as these expenses are particularly prone to adverse selection problems. In line with frank and Goyal (2009), we assume a positive relation between leverage and RDSALE.

Unique (DUNIQUE)

This is a dummy variable that takes a value of one if the SIC code of the firm is between 3400 and 4000 (firms producing computers, semiconductors, chemicals, and allied, aircraft, guided missiles, and space vehicles and other sensitive industries) and zero otherwise. Firms in unique industries suffer from high financial distress costs because they have more specialized labor which results in less debt in the capital structure. In line with (Titman, 1984 and Frank and Goyal, 2009), we expect a negative relation between leverage and DUNIQUE.

RDDUMMY

This is a dummy variable which takes value of unity if R&D expenses are missing or zero otherwise. In line with Chang et al. (2009), we expect a positive relation between leverage and RDDUMMY.

4.   Results

4.1   Firm Characteristics

Table 4 provides descriptive statistics of the characteristics of our sample firms. This table documents basic nonparametric univariate tests (MV/*T*-test) for the differences in median and mean values between first quintile and fifth quintile.

The variables that we examine are: Total debt to Market value of assets (TDM); DISSUE; Audit fee (AUDFEE); Big 6 auditors (DBAUDFIRM); Total assets (TA); Stock return Volatility (RETVOL); Past stock return (PSRETURN); Industry median leverage ratio (INDMEDLEV); Maturity (DMAT); CAPEXTA; Unique (DUNIQUE); Share Turnover (SHARETURN); RDSALE; RDDUMMY; TANGIBILITY; Unleveraged Z Score (UNLEVZSCORE); Book-to-market ratio (BM); CURRENTRATIO; Profitability (ROA) and DVTAT.

Several features are worthy of note from the comparison between first quintile and fifth quintile of Table 4. First, with regards to DISSUE we find that the high leverage firms issue more debt compare to low leverage firms. Second, when we compare audit fee (AUDFEE), we find that high leverage firms pay more audit fee. Third, BIG6 auditors (DAUDFIRM) are engaged with high leverage firms rather than low leverage firms. Fourth, in terms of total assets (TA), large firms are more leveraged firms (fifth quintile) compared to small firms, consistent with (Frank and Goyal, 2009) findings. Fifth, in terms of return volatility, consistent with Chang et al. (2009) we find that risky firms are high leverage firms. Sixth, we find that low leverage firms have high past stock return over 12 month's period compare to firms with high leverage. Sixth, in terms of maturity (DMAT), consistent with (Frank and Goyal, 2009) we find that, mature firms are more leveraged firms compare to young firms. Seventh, we find that the high leverage firms spend more on capital expenditure. Eighth, in terms of asset growth, high leverage firms have less asset growth. Ninth, with regards to unique firms low leverage firms are engaged with the production of unique products. Tenth, with regards to share turnover we find that the low leverage firms have high share

turnover over 12 months period. Eleventh, we find that high leverage firms spend less on research and development expenses. Twelfth, we find that more leverage firms have more tangible assets which make them able to collateralise those assets as security to get debt. In terms of unleveragezscore (UNLEVZSCORE) high leverage firms are the risky firms. Thirteen, we find that more leverage firms have high market to book ratio. Fourteen, in terms of profitability (ROA), Consistent with Frank and Goyal (2009) and Chang et al. (2009) we find that profitability has positive impact on leverage.

[INSERT TABLE 4 HERE]

4.2   Determinants of audit fees

In this section we examine the determinants of audit pricing in a regressions setting. In line with previous literature, we employ various firm characteristics for our control of audit fee model. The dependent variable is Logarithm value of audit fee at the last balance sheet date. The independent variables are logarithm of total assets (LNTA); TANGIBILITY; logarithm of book to market ratio (LBM); BUSY; Big 6 auditor (DBAUDFIRM); LOSS; ROA; auditor opinion (DAUOP); Current ratio; and foreign operations.

Several features are worthy of note from the Table 5. Most of the previous studies (See for example, Seetharam et al., (2002)) employ LNTA as a proxy for auditee size as a significant explanatory variable in determining audit fees. Consistent with previous studies (see for example, Seetharam et al., (2002) and Gul et al., (2003)) the estimated coefficient on LNTA is significant and positive for audit fees. The estimated coefficient on TANGIBILITY has a negative sign and statistically significant indicating firm with more PPE pay lower audit fees. The estimated coefficient on LBM has a positive sign and statistically significant, indicating that the value of firm significantly impact on annual audit related charges.

The busy session for audits is considered the time period in which most companies accounts are audited. The estimated coefficient on BUSY is positive and statistically significant indicating

that during the busy period auditor will charge higher pricing for their audit services. The results are consistent with our prediction that the financial year of companies in US mostly ends in December 31st. As a majority of companies start their audits after this date; this would be the January through March timeframe in US. It is generally believed that auditors expect better recoveries on standard charge out rates for busy session audits. We also find that the estimated coefficient on DBAUDFIRM has a positive sign and statistically significant. These results are consistent with our prediction that the high growth, and high value firms hire big auditors more often than small audit firms and large firms pay higher audit fees. The estimated coefficient on loss has a positive sign and statistically significant in all models. These results are consistent with our prediction that the risky firm generally pay high audit fees to get external audit services. Moreover, the estimated coefficient on ROA has negative sign and statistically significant for audit fee indicating that the audit fee will be lower for the firms with lowers risk. We find that the estimated coefficients on auditor opinion (DAUOP) is negative and significant, indicating that firms getting unqualified opinion from audit firms, tend to pay low audit fees. Consistent with (Seetharam et al. (2002)) the estimated coefficient on CURRENTRATIO has a positive sign and statistically significant, indicating that firms with more current assets pay high audit fees as large amount of current assets makes the audit work more complex.

Finally, the estimated coefficient on foreign operations has a positive sign and statistically significant. These results are consistent with our argument that if the business operations of the client are more complex, i.e., more diversified or having foreign operations, the audit work is also complex. More foreign operations require more audit work; therefore, audit firms charge higher audit fees. Sandra and Patrick (1996) argue that subsidiaries in different countries often have to comply with a variety of statutory and professional requirements for disclosure and thus this entails additional audit testing. This implies that the companies have to bear additional charges for audit work (see for example Langendijk (1997), Collier and Gregory (1996), Sandra and Partrick (1996),

and Taylor and Baker (1981)). Overall, we find that firm size, big 6 auditor, risk, current ratio and foreign operations significantly decide the audit fees.

[INSERT TABLE 5 HERE]

4.3   Impact of audit fees on capital structure decision

In this section we examine the impact of audit fees in determining capital structure using cross sectional regression model. The dependent variables is the market based leverage which is defined as total debt (debt in current liabilities plus long term debt) divided by market value of assets. The independent variables are the logarithm of audit fee and expected audit pricing at the end of balance sheet date; logarithm of total assets (LNTA); maturity (DMAT); logarithm of book-to-market ratio (LBM); TANGIBILITY; industry median leverage (INDMEDLEV); past stock return (PSRETURN); share turnover (SHARETURN); profitability (ROA); stock return volatility (RETVOL); dividends deflated by total assets (DVTAT); R&D expenses (RDSALE) and Unique dummy (DUNIQUE).

Table 7 reports the results relating to the impact of audit fees on capital structure decision. Panel A (Panel B) use LNAUDFEE (EXPAUDFEE) as a proxy for audit quality. The key points from the panel A of table 7 are as follows. First, the estimated coefficient on LNAUDFEE has a positive sign and statistically significant for market based leverage in all models, indicating that firms paying high audit fees are high leverage firms. This finding suggests that high leverage firms pay more audit fees.

We use further two approaches to mitigate the effect of endogeneity. Moreover, we predict the likelihood of the company paying high audit fees in the first stage using the specification in Table 5, and use this expected value (EXPAUDFEE) in the second stage (Panel B).We employ logarithm of audit fees on the balance sheet date and likelihood of paying audit fees is predicted on firm specific variables that are lagged one year for this first stage regression model. We also bootstrap this system 500 times to obtain the 95 percent confidence intervals in the second stage. In

the third stage, we follow (Wooldridge, 2002) instrumental technique in which predicted value of audit fees have been used as an instrument in the instrumental regression. As discussed in Panel B, the estimated coefficient on EXPAUDFEE has a negative sign and statistically significant for market based leverage in all models indicating firm with expected high audit fees are low leverage firms. As panel C results show, the estimated coefficient on LNAUDFEE has a negative sign and statistically significant for market based leverage in all the models indicating the estimation procedure has also the similar results that high audit fee paying firms are low leverage firms. The bootstrapped 95 percent confidence interval, showed in Panel B, and (Wooldridge, 2002) estimation procedure, showed in panel C reports that the estimated coefficient of audit fee is significantly different from zero. Thus, our evidence supports our prediction that firms paying high audit fees are high leverage firms.

Second, the estimated coefficient on LNTA is significant and positive in all models of (Panel A) indicating that large firms tend to have more leverage. Second, the estimated coefficient on maturity (DMAT) has a positive sign and statistically significant in all the models of Panel (A, B and C) indicating that mature firms are more leveraged firms. Third, the estimated coefficient on logarithm of book-to-market ratio (LBM) has positive sign and statistically significant for the market based leverage in all models (panel A, B and C) indicating that low growth firms are more leveraged firms. Fourth, the coefficient on TANGIBILITY is positive and statistically significant for all models of Panel A, B and C indicating that firms with more PPE tend to have more leverage. Fifth, the estimated co efficient on INDMEDLEV has a positive sign and statistically significant for the market based leverage in all models of Panel A, B and C, indicating that firms in industries in which median firm has high leverage are high leveraged firms. The coefficient on PSRETURN is negative and statistically significant for all models of Panel A, B and C indicating that firms with high stock return over 12 months period are low leveraged firms. Sixth, the estimated coefficient on SHARETURN has negative sign and statistically significant for all models of Panel A, B and C, which indicate that firms with high median value of monthly shares traded divided by outstanding

shares over 12 months period are less leveraged firms. Seventh, the estimated coefficients on ROA are positive and significant in all models of panel C, indicating that firms with more profitability are more leveraged firms. Eight, we find that the estimated coefficient on RETVOL are positive and significant in all models for Panel (A, B and C) indicating that risky firms are more leveraged firms. Ninth, we find that the estimated coefficient on DVTAT has a negative sign and statistically significant in all models for panel (A, B and C), which indicate that firms paying dividends are less leverage firms. Moreover, we find that the estimated coefficient on RDSALE has a positive sign and statistically significant in model 1 and 2 for Panel C, indicating that firms with more information disclosure tends to have more leverage. We also find that DUNIQUE is negative and statistical significant, indicating that the firms producing unique products have less leverage because of the threat of bankruptcy. Overall, we find that dividend paying firms with more maturity, more tangible assets, high industry median leverage, low growth, and high audit fees have more debt in their capital structure.

4.4   *Audit fees and debt-equity choice*

In this section we turn our attention to the impact of audit fees on the financing decision of the company. The dependent variable (DISSUE) is based on a dummy variable taking a value of unity if company issue debt and zero otherwise. The independent variables are logarithm of audit pricing (LNAUDFEE); predicted value of audit fees (EXPAUDFEE); firm size (LNTA); maturity (DMAT); logarithm of book-to-market ratio (LBM); industry median leverage (INDMEDLEV); past stock return (PSRETURN); share turnover (SHARETURN); profitability (ROA); RETVOL; UNLEVZSCORE; R&D expenses (RDSALE); RDDUMMY and capital expenditure deflated by total assets (CAPEXTA).

The estimated coefficient on the audit fees (LNAUDFEE) variable has a positive sign and statistically significant in all models , indicating that firm paying high audit fees tend to issue debt.

We use further two approaches to mitigate the effect of endogeneity. Moreover, we predict the likelihood of the company paying high audit fee in the first stage using the specification in Table 5, and use this expected value (EXPAUDFEE) in the second stage. We employ audit fee on balance sheet date and first stage expected based on firm specific variables that are lagged one year for this first stage regression model. We also bootstrap this system 500 times to obtain the 95 percent confidence intervals in the second stage. As discussed in model 2, the estimated coefficient on EXPAUDFEE has a negative sign and statistically significant. Further, we pursue a method recommended in the previous literature (Wooldridge 2002), which involves using the expected value of audit fee (EXPAUDFEE) as an instrument in the instrumental regressions (model 3). We employ a standard instrumental approach, with the expected value (EBAUDFIRM) obtained from Table 5 as an instrument. The results in model 2 and 3 of Table 9 from these methods are very similar.

Second, the estimated coefficient on LNTA is significant and positive in first model indicating that large firms tend to issue more debt. Second, the estimated coefficient on DMAT has a positive sign and statistically significant for two models indicating that mature firms are more inclined to issue debt. Third, the estimated coefficient on LBM has a positive sign and statistically significant in all models, which indicate that low growth firms issue equity. Fifth, the estimated coefficient on PSRETURN has negative sign and statistically significant for all models, which indicate that firms with high compounded annual stock return over 12 months period issue equity. Sixth, the estimated coefficient on share turnover (SHARETURN) has a negative sign and statistically significant for all the models, indicating that firms with high median value of monthly shares traded divided by outstanding shares over 12 months period are more inclined to issue equity. The coefficient on ROA is positive and statistically significant for all models indicating that profitable firms tend to issue debt. Seventh, the estimated coefficient on UNLEVZSCORE is positive and statistically significant for model 1, indicating that risky firms tend to issue debt. Moreover, we find that the estimated coefficient on RDSALE has a negative sign and statistically

significant for all models, indicating that firms with more information disclosure are more inclined to issue equity. We also find that coefficients on RDDUMMY are positive and statistically insignificant for model 2 and 3, indicating that firms with more information disclosure are more inclined to issue equity. Finally we find that the estimated coefficient on CAPEXTA has a positive sign and statistically significant, indicating that firms with more capital expenditures tend to issue debt.

[INSERT TABLE 7 HERE]

5. Conclusions

We investigate the impact of audit fees on capital structure decision. We also examine how audit fees impact on issuance choice of the firm. We find that the audit fees are positively related to leverage. We further document that the firms paying higher audit fees are more inclined to issue debt as opposed to equity. Overall, our findings suggest that audit fee plays a significant role in deciding the capital structure of the firm.

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Table 1: Summary of Sample Selection and Data Filtering

Reason for Sample Exclusion	No of observations
Initial Sample of US publicly traded firms	1,34,263
Less Exclusions	
- Financial, insurance and real estate companies	38,286
- Regulated utilities	4,866
- Firms with missing total assets	4,673
- Small firms with less than $5 million total assets	11,078
- Firms with no identifier	43,304
- Firms without Audit Pricing data	14,969
- Firms with negative TDM	07
- Firms with extreme TDM value	01
- Firms with negative debt in current liabilities	03
Total Exclusions	79,398
Final Sample	39,896

Table 2: Summary of Sample Selection and Distribution

Panel A of Table 2 provides year wise classification of number of firms during the period 2001−2012. Panel B of Table 2 provides industry representations code of firms.

Panel A: Year wise classification		
	Total	In Percentage (%)
2001	2,299	5.76
2002	2,868	7.19
2003	3,687	9.24
2004	3,684	9.23
2005	3,721	9.33
2006	3,686	9.24
2007	3,576	8.96
2008	3,532	8.85
2009	3,376	8.46
2010	3,220	8.07
2011	3,157	7.91
2012	3,090	7.74
Total	39,896	100
Panel B: Industry wise classification		
	Total	In Percentage (%)
Public Administration	150	0.38
Services	8,477	21.25
Transportation	3,210	8.05
Construction	292	0.73
Manufacturing	20,593	51.61
Mining	3,158	7.92
Retail	2,638	6.61
Wholesale	1,374	3.44
Agriculture	04	0.01

Table 3: Variable Definitions

Variable Name	Definition
TDM	Total debt to market value of assets
DISSUE	dummy variable equals to one if company issues debt or zero otherwise
AUDFEE	Audit pricing in $m at the balance sheet date
LNAUDFEE	logarithm of audit pricing at the balance sheet date
DAUDFIRM	a dummy variable, which takes a value of 1 for a Big 6 audit firm and 0 for other firms
TA	Total Assets at the balance sheet date
LNTA	logarithm of total assets
BM	Total assets/ Total assets+ Market value of equity-book value of equity
LBM	logarithm of book-to-market ratio
RDSALE	R&D divided by sales
RDDUMMY	a dummy variable, which takes a value of 1 if R&D expenses are missing and zero otherwise
RETVOL	standard deviation of monthly return calculated for each firm each year
UNLEVZSCORE	(3.3 * pretax income + sales + 1.4 * retained earnings + 1.2* [current assets – current liabilities])/total assets.
TANGIBILITY	Net PPE-to-assets ratio
PSRETURN	Cumulative annual past stock return over 12 months period
INDLEVMED	Leverage ratio computed based on three-digit SIC code and year
DMAT	is a dummy variable, which takes a value of 1 for firm which is in the COMPUSTAT for more than 5 years , and zero otherwise
CAPEXTA	capital expenditure relates to total assets
DUNIQUE	is a dummy variable, which takes a value of 1 If the SIC code of the firm is between 3400 and 4000, and zero otherwise
SHARETURN	Median value of monthly shares traded (volume) divided by shares outstanding over a 12-month period
CURRENTRATIO	ratio of current assets to total assets
ROA	income before depreciation and amortization divided by total assets
FOREIGNOP	number of foreign subsidiaries

Table 4: Firm Characteristics

This table provides firm characteristics of our sample with five ways classification of Quintile based on market value of leverage. The table also provides nonparametric test statistics Mann Whitney (MW)/t-test for the differences in median/ mean values between 1st quintile and 5th quintile. TDM: Total debt to Market value of Assets ; DISSUE: dummy variable equals to one if company issues debt or zero otherwise; AUDFEE : Audit pricing in $m at the last balance sheet date; DBAUDFIRM: is a dummy variable, which takes a value of 1 for Big 6 audit firm, and zero otherwise; TA: the total assets at the balance sheet date; RETVOL: standard deviation of stock return over the 12 month period; PSRETURN: Cumulative annual past stock return over 12 months period; INDLEVMED: Leverage ratio computed based on three-digit SIC code and year; DMAT: is a dummy variable, which takes a value of 1 for firm which is in the COMPUSTAT for more than 5 years , and zero otherwise; CAPEXTA: capital expenditure relates to total assets; DUNIQUE: is a dummy variable, which takes a value of 1 If the SIC code of the firm is between 3400 and 4000, and zero otherwise; SHARETURN: Median value of monthly shares traded (volume) divided by shares outstanding over a 12-month period; RDSALE: Research and development expenses scaled by total sales; RDDUMMY: Dummy variable equal to 1 if research and development expenses are missing, and 0 otherwise; TANGIBILITY: Net PPE-to-assets ratio; UNLEVZSCORE: is a unleveraged measure employed by Chang et al. (2009); BM: the book-to-market ratio measured, as the ratio of the book value of assets to market value of assets; ROA: operating income before depreciation relates to total asset; DVTAT: dividends divided by total assets; [*] Significantly different from zero at the 10% level, [**] significantly different from zero at the 5% level, and [***] significantly different from zero at the 1%.

Variables		Q1	Q2	Q3	Q4	Q5	Q1 Vs Q5 t-test/MV
TDM	Mean (%)	0.00	0.02	0.12	0.29	0.61	(2.90)**
	Median (%)	0.38	0.51	0.81	1.03	0.95	(115.48)***
DISSUE	Mean	0.11	0.71	0.78	0.82	0.85	(72.53)***
	Median	0.00	1.00	1.00	1.00	1.00	(50.46)***
AUDFEE	Mean ($m)	0.52	0.99	1.98	2.20	1.89	(24.68)***
	Median ($m)	0.38	0.51	0.81	1.03	0.95	(41.63)***
DBAUDFIRM	Mean	0.71	0.72	0.78	0.80	0.76	(6.63)***
	Median	1.00	1.00	1.00	1.00	1.00	(6.62)***
TA	Mean ($m)	409.20	1745.89	4218.87	5036.49	4131.57	(24.56)***
	Median ($m)	104.24	138.39	415.98	673.63	679.52	(55.89)***
RETVOL	Mean	0.04	0.04	0.03	0.03	0.04	(-9.16)***
	Median	0.03	0.03	0.03	0.03	0.03	(-1.92)*
PSRETURN	Mean	0.15	0.23	0.18	0.13	-0.01	(14.85)***
	Median	0.11	0.19	0.18	0.14	0.00	(14.53)***
INDLEVMED	Mean	0.06	0.08	0.13	0.18	0.25	(94.15)***
	Median	0.02	0.04	0.12	0.20	0.23	(76.96)***
DMAT	Mean	0.85	0.85	0.91	0.91	0.89	(6.22)***
	Median	1.00	1.00	1.00	1.00	1.00	(6.22)***
CAPEXTA	Mean (%)	0.04	0.05	0.06	0.06	0.06	(20.48)***
	Median (%)	0.02	0.03	0.04	0.04	0.04	(27.51)***
DUNIQUE	Mean	0.34	0.32	0.30	0.27	0.18	(22.55)***
	Median	0.00	0.00	0.00	0.00	0.00	(22.55)***
SHARETURN	Mean (%)	1.57	1.63	1.56	1.58	1.44	(3.55)***
	Median (%)	1.06	1.20	1.19	1.29	1.07	(6.33)***
RDSALE	Mean (%)	0.96	0.92	0.41	0.19	0.13	(14.36)***
	Median (%)	0.07	0.04	0.00	0.00	0.00	(56.84)***
RDDUMMY	Mean	0.24	0.25	0.35	0.44	0.57	(44.56)***
	Median	0.00	0.00	0.00	0.00	1.00	(41.97)***
TANGIBILITY	Mean (%)	0.14	0.19	0.27	0.32	0.38	(66.26)***
	Median (%)	0.08	0.13	0.19	0.25	0.35	(62.21)***
UNLEVZSCORE	Mean	522.27	3060.08	7014.60	6377.35	3518.13	(18.06)***
	Median	50.74	82.07	547.09	741.07	353.12	(31.01)***
BM	Mean (%)	-0.58	-0.61	-0.35	-0.77	0.18	(46.36)***
	Median (%)	-0.61	-0.65	-0.31	-0.00	0.22	(62.62)***
ROA	Mean (%)	-0.12	0.00	0.07	0.08	0.07	(23.30)***
	Median (%)	0.06	0.09	0.13	0.12	0.09	(15.67)***
DVTAT	Mean (%)	0.01	0.01	0.01	0.01	0.01	(6.72)***
	Median (%)	0.01	0.01	0.01	0.01	0.01	(17.38)***
Sample		39,896	39,896	39,896	39,896	39,896	

Table 5: Determinants of Audit fee

This table presents the results for modelling the determinants of the company selecting the audit pricing, as a proxy for high audit quality. The sample includes all Compustat companies with more than $5 million total assets in any financial year during the period 2001 to 2012. The dependent variable is the natural logarithm of audit pricing (in $m) at the balance sheet date. Independent variables are: LNTA: logarithm of Total assets; TANGIBILITY: Net PPE to Total Assets; LBM: Logarithm of book-to-market ratio; BUSY: which takes a value of unity for a firm financial year end in December to March ; DBAUDFIRM: dummy variable equals to 1 if firm choose a Big 6 auditor, and zero otherwise; LOSS: a dummy variable, which takes a value of 1 for a firm making loss during the previous year, and zero otherwise; ROA: operating income before depreciation relates to total asset; DUOP: dummy variable equals to unity if auditor give unqualified opinion or zero otherwise; CURRENTRATIO: current assets deflated by total assets; FOREIGNOP: number of foreign subsidiaries; * Significantly different from zero at the 10% level, ** significantly different from zero at the 5% level, and ***significantly different from zero at the 1% level.

Constant	-5.1533
	(-22.03)***
LNTA	0.5208
	(221.33)***
TANGIBILITY	-0.6188
	(-30.70)***
LBM	0.0407
	(8.34)***
BUSY	0.0328
	(4.28)***
DBAUDFIRM	0.2169
	(24.32)***
LOSS	0.1175
	(14.39)***
ROA	-0.1672
	(-9.82)***
DAUOP	-0.1486
	(-21.02)***
CURRENTRATIO	0.0178
	(0.93)
FOREIGNOP	0.0027
	(23.95)***
Year Effects	Yes
Industry Effects	Yes
R^2	0.8013
Firm Years (Observations)	39896

Table 6: Impact of Audit Fee on Capital structure decision

This table provides a cross-sectional regression analysis explaining the factors that determine the capital structure decision. The dependent variable is the market leverage, which is defined as total debt divided by market value of assets. Independent variables are LNAUDFEE: is logarithm of audit pricing at the balance sheet date; LNTA: logarithm of the total assets at the last balance sheet date; DMAT: is a dummy variable, which takes a value of 1 for firm which is in the COMPUSTAT for more than 5 years and zero otherwise; LBM: Logarithm of book-to-market ratio; TANGIBILITY: Net PPE to Total Assets; INDLEVMED: Leverage ratio computed based on three-digit SIC code and year ; PSRETURN: cumulative annual past stock return over 12 months period; SHARETURN: Median value of monthly shares traded (volume) divided by shares outstanding over a 12-month period; ROA: operating income before depreciation relates to total asset; RETVOL: standard deviation of monthly return calculated for each firm each year; DVTAT: dividends divided by total assets; RDSALE: R&D expenses divided by sales; DUNIQUE: is a dummy variable, which takes a value of 1 If the SIC code of the firm is between 3400 and 4000, and zero otherwise. In the Panel B, market based leverage is regressed on the expected audit fee and other control variables. Panel C reports the results from an instrumental variable approach, which is described in Wooldridge (2002).The 95 percent confidence intervals in brackets are calculated from 500 bootstrap replications of the two-step estimation based on resampling from the data set with replacement of clusters * Significantly different from zero at the 10% level, ** significantly different from zero at the 5% level, and ***significantly different from zero at the 1% level.

Panel A: Impact of Audit Pricing on Capital Structure Decision					
	1	2	3	4	5
LNAUDFEE	0.0099	0.0081	0.008	0.0096	0.0038
	(6.74)***	(5.45)***	(5.39)***	(6.55)***	(3.00)***
LNTA	0.0193	0.0203	0.0204	0.0196	0.0223
	(18.46)***	(19.20)***	(19.29)***	(18.75)***	(23.90)***
DMAT	0.0111	0.0102	0.0102	0.0109	0.0106
	(3.63)***	(3.34)***	(3.36)***	(3.57)***	(3.52)***
LBM	0.0842	0.083	0.0829	0.0838	0.0822
	(53.56)***	(52.98)***	(53.01)***	(53.69)***	(53.57)***
TANGIBILITY	0.1113	0.1454	0.1454	0.1122	0.1439
	(20.94)***	(22.95)***	(22.94)***	(21.34)***	(22.70)***
INDMEDLEV	0.5342	0.5058	0.5056	0.5365	0.5059
	(56.14)***	(49.27)***	(49.25)***	(56.53)***	(49.25)***
PSRETURN	-0.0709	-0.0703	-0.0703	-0.0708	-0.0701
	(-34.40)***	(-34.21)***	(-34.21)***	(-34.38)***	(-36.45)***
SHARETURN	-0.0036	-0.0035	-0.0034	-0.0036	-0.0039
	(-5.86)***	(-5.64)***	(-5.62)***	(-5.94)***	(-6.47)***
ROA	0.0062	0.0039	0.0021	0.0034	-0.0013
	(1.25)	(0.78)	(0.45)	(0.75)	(-0.28)
RETVOL	3.0165	3.0219	3.0203	3.0167	2.9268
	(38.20)***	(38.28)***	(38.27)***	(38.21)***	(41.58)***
DVTAT	-0.1775	-0.1903	-0.1901	-0.1763	-0.1973
	(-7.37)***	(-7.82)***	(-7.82)***	(-7.32)***	(-8.13)***
RDSALE	0.0004	0.0003			
	(1.56)	(1.33)			
DUNIQUE	-0.0041				
	(-2.06)**				
CONSTANT	-0.0789	-0.1385	-0.1388	-0.082	-0.1635
	(-7.50)***	(-6.66)***	(-6.66)***	(-7.88)***	(-8.41)***
Year Effects	Yes	Yes	Yes	Yes	
Industry Effects		Yes	Yes		Yes
Sample	36856	36856	36856	36856	36856
R2	0.4361	0.4391	0.4391	0.436	0.4373
Prob>F	0.0000	0.0000	0.0000	0.0000	0.0000

	1	2	3	4	5

Panel B: Impact of Expected Audit Pricing on Capital Structure Decision					
	1	2	3	4	5
EXPAUDFEE	0.0441	0.0323	0.0323	0.0433	-0.0033
	(8.77)***	(5.21)***	(5.16)***	(8.50)***	(-1.35)
	(0.0338,0.0543)	(0.0201,0.0445)	(0.0199,0.0447)	(0.0331,0.0535)	(-0.0080,0.0014)
LNTA	0.0002	0.0067	0.0067	0.0007	0.0264
	(0.06)	(1.89)*	(1.88)*	(0.23)	(17.91)***
	(-0.0058,0.0061)	(-0.0003,0.0138)	(-0.0003,0.0138)	(-0.0052,0.0065)	(0.0235,0.0294)
DMAT	0.0112	0.0107	0.0107	0.011	0.0114
	(3.57)***	(3.52)***	(3.47)***	(3.47)***	(3.60)***
	(0.0051,0.0174)	(0.0046,0.0167)	(0.0047,0.0167)	(0.0049,0.0170)	(0.0055,0.0173)
LBM	0.0833	0.0825	0.0824	0.083	0.0825
	(55.99)***	(51.19)***	(52.06)***	(53.34)***	(53.15)***
	(0.0800,0.0866)	(0.0794,0.0856)	(0.0794,0.0854)	(0.0798,0.0861)	(0.0795,0.0854)
TANGIBILITY	0.1425	0.1615	0.1616	0.1431	0.1381
	(19.28)***	(19.70)***	(21.92)***	(19.86)***	(20.87)***
	(0.1289,0.1562)	(0.1459,0.1771)	(0.1466,0.1765)	(0.1287,0.1576)	(0.1251,0.1512)
INDMEDLEV	0.5389	0.5062	0.506	0.5415	0.5058
	(56.97)***	(50.31)***	(50.88)***	(60.68)***	(51.00)***
	(0.5203,0.5576)	(0.4863,0.5260)	(0.4862,0.5258)	(0.5230,0.5601)	(0.4855,0.5261)
PSRETURN	-0.0707	-0.0702	-0.0702	-0.0707	-0.0704
	(-34.48)***	(-32.77)***	(-34.09)***	(-33.10)***	(-35.30)***
	(-0.0750,-0.0665)	(-0.0744,-0.0660)	(-0.0742,-0.0662)	(-0.0749,-0.0664)	(-0.0742,-0.0666)
SHARETURN	-0.0037	-0.0036	-0.0035	-0.0037	-0.0037
	(-6.04)***	(-5.63)***	(-5.76)***	(-6.18)***	(-6.21)***
	(-0.0049,-0.0025)	(-0.0048,-0.0023)	(-0.0047,-0.0024)	(-0.0049,-0.0025)	(-0.0049,-0.0026)
ROA	0.0177	0.0124	0.011	0.0154	-0.0041
	(3.54)***	(2.22)**	(2.03)**	(3.21)***	(-0.89)
	(0.0078,0.0276)	(0.0020,0.0227)	(0.0008,0.0212)	(0.0060,0.0248)	(-0.0132,0.0050)
RETVOL	3.0185	3.0238	3.0224	3.0192	2.921
	(40.09)***	(40.06)***	(37.69)***	(37.44)***	(43.24)***
	(2.8646,3.1723)	(2.8621,3.1854)	(2.8730,3.1719)	(2.8704,3.1681)	(2.7836,3.0584)
DVTAT	-0.1703	-0.1843	-0.1843	-0.1692	-0.1936
	(-7.19)***	(-7.79)***	(-7.61)***	(-7.20)***	(-7.87)***
	(-0.2177,-0.1230)	(-0.2321,-0.1366)	(-0.2324,-0.1362)	(-0.2179,-0.1205)	(-0.2429,-0.1443)
RDSALE	0.0003	0.0002			
	(1.07)	(1.02)			
	(-0.0002,0.0007)	(-0.0002,0.0007)			
DUNIQUE	-0.0045				
	(-2.25)**				
	(-0.0084,-0.0005)				
CONSTANT	0.0669	-0.0122	-0.012	0.0616	-0.1976
	(2.96)***	(-0.30)	(-0.29)	(2.58)***	(-8.88)***
	(0.0199,0.1139)	(-0.0927,0.0682)	(-0.0943,0.0703)	(0.0145,0.1086)	(-0.2443,-0.1509)
Year Effects	Yes	Yes	Yes	Yes	
Industry Effects		Yes	Yes		Yes
Sample	36856	36856	36856	36856	36856
R2	0.4366	0.439	0.439	0.4365	0.4372
Prob>F	0.0000	0.0000	0.0000	0.0000	0.0000

	Panel C: Wooldridge (2002) Instrumental Approach				
	1	2	3	4	5
LNAUDFEE	0.0468	0.0342	0.0342	0.0455	-0.0032
	(8.38)***	(5.08)***	(5.08)***	(8.22)***	(-1.35)
LNTA	-0.002	0.0053	0.0053	-0.0011	0.0264
	(-0.60)	(1.33)	(1.33)	(-0.34)	(17.73)***
DMAT	0.0077	0.0079	0.008	0.0074	0.0116
	(2.46)**	(2.55)**	(2.57)**	(2.37)**	(3.82)***
LBM	0.0836	0.0825	0.0822	0.0828	0.0825
	(52.92)***	(52.73)***	(52.66)***	(52.80)***	(53.61)***
TANGIBILITY	0.1439	0.163	0.1632	0.1449	0.1381
	(19.16)***	(20.89)***	(20.87)***	(19.26)***	(20.98)***
INDMEDLEV	0.5414	0.5092	0.5089	0.5456	0.5056
	(56.47)***	(49.42)***	(49.39)***	(57.00)***	(49.22)***
PSRETURN	-0.0727	-0.0716	-0.0716	-0.0725	-0.0703
	(-34.77)***	(-34.30)***	(-34.30)***	(-34.73)***	(-36.48)***
SHARETURN	-0.0029	-0.003	-0.003	-0.003	-0.0038
	(-4.62)***	(-4.86)***	(-4.82)***	(-4.78)***	(-6.26)***
ROA	0.0189	0.0129	0.0096	0.0134	-0.0039
	(3.54)***	(2.33)**	(1.89)*	(2.76)***	(-0.82)
RETVOL	2.9185	2.952	2.9486	2.9209	2.9269
	(36.39)***	(36.69)***	(36.62)***	(36.42)***	(41.58)***
DVTAT	-0.1899	-0.1981	-0.1979	-0.1873	-0.1923
	(-7.95)***	(-8.20)***	(-8.20)***	(-7.85)***	(-7.85)***
RDSALE	0.0007	0.0006			
	(2.86)***	(2.33)**			
DUNIQUE	-0.0077				
	(-3.79)***				
CONSTANT	0.0908	0.0058	0.0064	0.0814	-0.1979
	(3.39)***	(0.14)	(0.16)	(3.09)***	(-8.84)***
Year Effects	Yes	Yes	Yes	Yes	
Industry Effects		Yes	Yes		Yes
N	36856	36856	36856	36856	36856
R2	0.4263	0.4343	0.4343	0.4267	0.4368
Prob>F	0.0000	0.0000	0.0000	0.0000	0.0000

Table 7: Audit Pricing and debt-equity choice

This table provides a probit regression analysis explaining the factors that determine the capital structure decision. The dependent variable is the DISSUE, equals one if debt is issued, and 0 if equity is issued. Independent variables are LNAUDFEE: is logarithm of audit pricing at the balance sheet date; EXPAUDFEE: predicted value of the audit fee; LNTA: the logarithm of the total assets at the last balance sheet date; DMAT: is a dummy variable, which takes a value of 1 for firm which is in the COMPUSTAT for more than 5 years and zero otherwise; LBM: Logarithm of book-to-market ratio;); INDMEDLEV: Leverage ratio computed based on three-digit SIC code and year; PSRETURN: Cumulative annual past stock return over 12 months period; SHARETURN: Median value of monthly shares traded (volume) divided by shares outstanding over a 12-month period; ROA: the ratio of earnings before interest, tax and depreciation to total assets; RETVOL: standard deviation of monthly return calculated for each firm each year; UNLEVZSCORE: is a unleveraged measure employed by Chang et al. (2009 ; RDSALE: Research and development expenses scaled by total sales; RDDUMMY: a dummy variable, which takes a value of 1 if R&D expenses are missing and zero otherwise; CAPEXTA: capital expenditure relates to total assets ;* Significantly different from zero at the 10% level, ** significantly different from zero at the 5% level, and ***significantly different from zero at the 1% level.

Audit Pricing and Debt Equity choice			
	1	2	3
LNAUDFEE	0.0736		0.3416
	(3.45)***		(3.15)***
EXPAUDFEE		0.3479	
		(5.21)***	
		(0.2170,0.4788)	
LNTA	0.134	-0.0198	0.0133
	(8.03)***	(-0.50)	(0.21)
		(-0.0981,0.0585)	
DMAT	0.239	0.2528	0.11
	(6.23)***	(6.65)***	(1.62)
		(0.1783,0.3274)	
LBM	0.224	0.2221	0.2006
	(10.24)***	(10.18)***	(6.19)***
		(0.1793,0.2649)	
INDMEDLEV	1.0523	1.206	1.7695
	(8.09)***	(8.58)***	(6.58)***
		(0.9306,1.4813)	
PSRETURN	-0.2892	-0.2869	-0.2757
	(-12.23)***	(-12.01)***	(-7.75)***
		(-0.3337,-0.2401)	
SHARETURN	-0.055	-0.0561	-0.0214
	(-6.01)***	(-5.81)***	(-1.38)
		(-0.0751,-0.0372)	
ROA	0.56	0.6411	0.2182
	(8.80)***	(9.59)***	(2.44)**
		(0.5101,0.7721)	
RETVOL	-0.2443	-0.1933	0.2206
	(-0.29)	(-0.22)	(0.18)
		(-1.9447,1.5581)	
UNLEVZSCORE	0.0000	0.0000	0.0000
	(1.71)*	(1.09)	(0.85)
		(-0.0000,0.0000)	
RDSALE	-0.0133	-0.0142	-0.0114
	(-3.93)***	(-4.16)***	(-2.65)***
		(-0.0208,-0.0075)	
RDDUMMY	0.0283	0.0674	0.1259
	(0.85)	(1.87)*	(2.31)**
		(-0.0034,0.1381)	
CAPEXTA	0.7707	1.201	3.281
	(4.30)***	(5.77)***	(5.19)***
		(0.7932,1.6088)	
CONSTANT	-0.4461	0.7193	0.5582
	(-3.09)***	(2.30)**	(1.11)
		(0.1072,1.3314)	
Year Effects	Yes	Yes	Yes
N	10250	10250	10250
Psuedo R2	0.2146	0.2158	
chi-squared	1985.579	1942.673	672.7184
Prob>F	0.0000	0.0000	0.0000