

# Effect of Auditor Choice and Tenure on the Cost of Equity Capital of Selected Listed Firms in the Philippines

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This study examines the empirical evidence of the effects of auditor choice, using audit firm size and audit firm switches as proxies, and auditor tenure, using audit firm tenure and engagement partner rotation as proxies, on the equity costs of capital of local companies listed in the Philippine Stock Exchange.

Focusing on listed companies from the Property, Financial Institutions and Energy & Utilities sectors, a sample of 308 firm-year observations from the period 2004-2011 was included in the study. Using Pooled Ordinary Least Squares and including Company Growth Opportunities, Leverage and Company Size as control variables, various regression models were estimated to test the various hypotheses. A cross-sectional regression model was used to test the effect of audit firm tenure on the cost of equity capital using 2010 as base year.

The results show that proxies for the size of the audit firm and tenure of the firm as auditor are statistically significant. The results of the study indicate that Auditor Competence is assessed and consequently measured by the stakeholders, stockholders in particular, in their valuation of information risk. Thus, the audit quality variables Audit Firm Size and Audit Firm Tenure, identified by this study as significant, act as signals to the stockholders or other stakeholders of the level of credibility of the financial statements that they depend on in making sound economic decisions.

*Keywords:* auditor choice, auditor tenure, cost of equity

## 1 Introduction

### 1.1 Background

Ricchiute (2006) explained that “the economic value of financial statement audits is clear: Audits reduce information risk (i.e., the risk that information in financial statements is misstated materially), and reductions in information risk reduce a company’s cost of capital (i.e., the cost a company endures to issue equity or incur debt)” (Ricchiute, 2006, p. 2). Creditors and investors would require higher rates of return in the absence of a credible third party providing an independent attestation to the fair presentation of a company’s financial statement.

The need for a financial statement audit arises because of the following reasons (Committee on Basic Auditing Concepts, 1973):

1. Possible conflicts of interest exist between company management, who is responsible for the financial statements, and the different stakeholders of the company.
2. Stakeholders based economic decisions on the information provided in the financial statements and incorrect decisions have dire consequences.
3. Not everyone has the expertise to assess the fairness of the financial statements.
4. Remoteness and inaccessibility of the underlying evidence preclude users from evaluating in detail accounting information unless considerable time and effort is inefficiently spent.

It is presumed that without the independent accountant’s opinion on the fairness of the financial statements, users, creditors and stockholders in particular, would demand a higher opportunity cost to the capital that they provide to compensate for the risk that financial information is materially misstated.

The mere presence of an independent auditor may not be enough to compensate for the risk that the financial statements are biased. Audit quality may play an important role in reducing information risk. It is for this reason that audit quality may be crucial in enhancing the credibility of the financial statements and thereby lowering the costs of capital.

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## 1.2 Objectives and Significance

This study will examine the empirical evidence on the following aspects of audit quality and its effect on the equity cost of capital of local companies listed in the Philippine Stock Exchange:

- Does auditor choice affect the cost of equity capital?
- Does audit tenure affect the cost of equity capital?

If audit quality—using as proxy various quality dimensions used by Li and Stokes (2008) and Azizkhani, Monroe, and Shailer (2007) such as the choice of auditor and the length of service of the auditor—significantly affect companies' costs of capital, firms should carefully select their independent auditors, aside from fairly presenting its financial position and performance, in order to reduce information risk and consequently their costs of capital.

On one hand, knowing if these audit quality dimensions are significant will facilitate the careful choice of auditors. On the other hand, the insignificance of audit quality may mean that the auditor's opinion is a mere "rubber-stamp" for compliance purposes and the whole auditor selection process is simply a cost-minimizing exercise instead of a value-adding endeavor for listed companies.

The significance of the study may direct the full attention and resources of these listed companies towards a more elaborate method of auditor selection, managing auditor-client relationship and even termination.

Section One of this paper introduces the background of the study and provides the objectives and significance of the study. Section Two discusses the review of related literature and the development of the relevant hypotheses to be tested. Section Three lists down the procedures undertaken, the regression models to be tested, descriptive statistics and the scope of the study. Section Four examines the results and possible reasons for these outcomes. Section Five offers the conclusion to the study as well as its limitations and directions for future research.

## 2 Review of Literature and Hypothesis Development

### 2.1 Review of Literature

Li and Stokes (2008) used a sample of 1,080 firm observations from the Australian market from the period 1999-2004 to test the impact of audit quality on the cost of equity capital. Following a cost of capital model similar to Francis, La Fond, Olsson, & Schipper (2005) and Taylor and Wong (2006), Li and Stokes (2008) used the adjusted earnings-price ratio as a proxy for the cost of equity capital.

Francis, et al. (2005) "viewed the price-earnings ratio as an inverse indicator of the cost of equity" (p. 311). The study determined the relationship between the industry-adjusted earnings-price (EP) ratio, as a proxy for the cost of equity capital, and accruals quality. They computed for the industry-adjusted EP ratios by determining the median EP ratio for all 48 industry groups included in their study. Individual firm's industry adjusted EP ratios were calculated by getting the difference between the firm's EP ratio and the median industry EP ratio.

Li and Stokes (2008) used independent control variables such as Growth (i.e., computed as the log of one plus a firm's growth in value of equity), Beta (i.e., computed using the Capital Asset Pricing Model), Leverage (i.e., computed as total debt over total assets), and Size (i.e., log of the total assets).

The study also used the following proxies for auditor choice:

- Big, 1 if the firm is audited by a Big-N firm and 0 otherwise
- Dummy variables to control for auditor switches
- CL, taking into account if a city industry leader is the external auditor of the listed company

Li and Stokes (2008), likewise, discussed the Price-Earnings Growth model, Olson and Juettner model, Capital Asset Pricing model, variations in the Dividend Discount model and the Residual Income model as proxies for the cost of equity capital.

They found that audit firm size is associated with a lower cost of equity capital based on the significance of the dummy variables for audit switches from a smaller to a bigger auditor firm. City leadership and audit effort were also found to have a negative relationship with the cost of equity capital. They concluded that brand name reputation (financial reporting credibility notion) drives audit quality in the Australian market (Li & Stokes, 2008). This is not exactly consistent with the results of Khurana and Raman (2004) that "litigation risk drives audit quality" (p. 473). The notion of litigation risk notion states that audit quality is driven by the chance that the auditor will be held liable if material

misstatements are found in the financial statements. Li and Stokes (2008) also found that the audit opinion affects the cost of equity capital and found no support for the auditor “economic dependence” hypothesis.

Li et al. (2009) further extended their work by relating earnings quality, measured by total accruals, to the cost of equity capital. Similar audit quality measures and control variables were used just like in their 2008 study.

Azizkhani et al. (2007), using a sample of Australian companies from 1995-2005, found that “(1) Big 4 audits are significantly associated with lower ex ante cost of equity capital; (2) Audit firm tenure and audit partner tenure are significantly associated with lower ex ante cost of equity capital, but only for non-Big-4 audit firms; and (3) Audit firm switches and audit partner rotation are not significantly associated with lower ex ante cost of equity capital” (p. 1).

Azizkhani et al. (2007) computed for the client-specific ex-ante cost of capital, their dependent variable, as the square root of the difference between the two-year ahead mean analysts’ earnings forecast per share and the tone-year ahead mean analysts’ earnings forecast per share divided by the fiscal year-end price per share. Similarly, they introduced earnings variability, leverage, company size, beta, book-to-market ratio and expected earnings growth as control variables.

The significance of the audit tenure variable was attributed to the “auditor expertise hypothesis”. The longer an auditor is exposed to a particular client company, the greater is the client-specific knowledge acquired. They also attributed the difference in results across studies to the regulatory environment citing differences in rules such as those related to mandatory audit firm rotation.

Pittman and Fortin (2004) tested two major hypotheses on 3,458 SEC-registered initial public offerings from 1977 to 1988 and found that “(1) The influence of auditor reputation on firms’ interest rates will become less negative with age and (2) The subsiding influence of auditor reputation on interest rates with age will be stronger in firms with short private histories” (pp. 116-117).

Using the firm’s interest rate as the dependent variable calculated as its interest expense for the year divided by its average short-term and long-term debt during the year, Pittman and Fortin (2004) included control variables such as the average prime rate, the default spread between BAA-rated and government bonds, leverage, cash flow from operations, firm size and a negative book equity dummy.

Their findings suggest that “choosing a Big Six auditor, which can reduce debt-related monitoring costs by enhancing the credibility of financial statements, enables young firms to lower their interest rates” (p. 134). They also concluded “that the economic value of auditor reputation to the cost of credit declines over time as borrowers gradually shift toward relying on their own reputations to moderate information asymmetry” (Pittman & Fortin, 2004, p. 134).

Mansi, Maxwell, and Miller (2004) discussed the two valuable roles of auditors to capital markets. First, the auditors’ information role provides independent verification of the financial statements contributing to the credibility of the financial statements thereby reducing the cost of capital. Second, auditors portray an insurance role because “securities laws provide recourse for the investor against the auditor --- auditors provide investors with a means to indemnify losses” (Mansi et al., 2004, p. 756). Several dependent variables were tested such as credit ratings and credit spreads. Control variables were divided into firm-risk factors and security-risk factors. Based on their sample of 8,529 firm-year observations from 1974 to 1998, they found that auditor quality and tenure have a negative relationship with required rates of return of corporate bonds, with a greater impact on the cost of debt for non-investment grade firms.

## 2.2 Development of Hypothesis

Different proxies for auditor choice and tenure will be used based on the results of previous studies. The general expectation is that audit quality lowers the cost of equity capital.

### 2.2.1 Hypotheses

#### **Auditor Choice**

H1: The size of the audit firm lowers the equity cost of capital.

H2: Audit firm switches affect the equity cost of capital.

Audit firm size may mean that a bigger audit firm would have more requisite audit skill & knowledge and thus exhibit greater quality. Audit firm size is also seen as correlating highly with reputation, which is believed to carry a lot of weight to users of financial statements. On the other hand, the switch from a Big-N auditor to a non-Big-N auditor is not hypothesized to have a clear directional effect given the lack of agreement on this issue in previous studies.

#### **Auditor Tenure**

H3: Audit firm tenure lowers the equity cost of capital.

H4: Engagement partner rotation increases the equity cost of capital.

Previous studies would suggest a negative relationship between the cost of capital and audit tenure since audit expertise is acquired the longer an auditor is involved with a particular client. Expectations as to the sign of the audit tenure variable may differ because of a contrasting theory. The contrasting theory suggests that the familiarity threat increases with audit tenure leading to an impairment of the independence of the auditor. Azizkhani et al. (2007) attributed audit expertise to the acquisition of client-specific knowledge as exposure to the client increases. They also provided three counter-arguments: 1) economic dependence increases over time; 2) "learned confidence" or the familiarity threat; and even 3) psychological dependence created because of the developing bond between client and auditor.

### 2.3 Dependent Variable

The cost of equity capital will be used as the dependent variable. There are numerous listed firms with low or actually zero-level of debt; thus, it would be difficult to achieve a good sample size using the cost of debt as the dependent variable for the cost of capital. Similar to Francis et al. (2005), the earnings-price ratio will be used to proxy the equity cost of capital. They argued that the E/P ratio is a popular measure of estimating the rate of return of equity. However, costs of capital measures such as the forward earnings-price ratio will be difficult to obtain because of the lack of expectational data. Thus, trailing earnings-price ratios will be utilized in the study. An adjusted earnings price ratio will be used by deducting the median industry earnings-price ratio. Li and Stokes (2008) and Francis et al. (2005) used the adjusted earnings-price ratio "on the assumption that the EP ratio is more likely to capture the pricing effect of perceived audit quality by indicating how much an investor is willing to pay for a dollar of audited earnings" (Li and Stokes, 2008, p.3). Francis, et al. (2005) further explained that the "EP ratio is used to address the concerns of small values of earnings in the denominator" (p. 311). An industry-adjusted E/P ratio will be used in order to determine whether the cost of equity is relatively high or low. The median industry E/P ratio will serve as a benchmark value. The costs of equity of companies with positive industry-adjusted E/P ratios can be considered high. Alford (1992) concluded that the P/E ratio, hence the E/P ratio as well, is more accurate if adjusted for industry effect. He mentioned that the industry effect determines much of the variations in E/P ratios. Adjusting for the industry effect makes the E/P ratio more comparable across firms included in the study.

### 2.4 Control Variables

The following control variables are considered:

**Growth opportunities.** Yu (2003) used the average market-to-book ratio as the growth measure. Williamson (1981) argued that with higher growth, the firm has lower leverage, more financial flexibility, and a lower cost of equity. Li and Stokes (2008) and Francis et al. (2005) predicted a negative sign because of the expectations that higher growth would lead to a low earnings-price ratio. In contrast, Huang, Natarajan, and Radhakrishnan (2004) related earnings to price (proxy for cost of capital) and market-to-book ratios (proxy for growth) and found a positive relationship.

**Leverage.** Cayanan (2006) used the ratio of interest-bearing liabilities to total assets to measure leverage. Increasing leverage may increase the costs of equity because of lower financial flexibility.

Modigliani and Miller (1958) proposed that higher leverage results in higher risk, thus, Li and Stokes (2008) proposed a positive sign for the variable.

Modigliani and Miller's irrelevance propositions (1958, 1963, 1977) were the seminal papers on capital structure. Modigliani-Miller Proposition I (1958) states "the market value of any firm is independent of its capital structure and is given by capitalizing its expected return at the rate appropriate for its risk class" (p. 268). Assuming perfect capital markets<sup>1</sup>, the choice of capital structure does not affect the value of the firm. Copeland and Weston (1988) acknowledged that many of the assumptions used by Modigliani and Miller are unrealistic yet relaxing many of them does not really change firm behavior as the model of Modigliani and Miller provided. Proposition II, using similar assumptions, argued that the weighted average cost of capital remains the same at any capital structure. Miller (1977) modified their initial arguments by introducing personal and corporate taxes in the model. From this, the model suggested that since the value of leverage lies in the tax shield from debt then a 100% debt capital structure would be optimal. This, of course, is not realistic since every firm would have at least an owner/stockholder.

The gain from increasing leverage (tax shield) combined with the bankruptcy costs incurred by firms at high debt levels are the main arguments for a theoretical optimal capital structure. By balancing the trade-off between the benefits and costs of debt financing, a firm obtains the capital structure that maximizes firm value, maximizes its share price and minimizes its costs of capital. DeAngelo and Masulis (1980) analyzed the effect of tax shields in arguing that there is "a market equilibrium in which each firm has a unique interior optimum leverage decision" (p. 3).

Ross (1977) suggested that firms use debt levels as a signaling device. Ross mentioned that managers increase the financial leverage of a firm to signal its optimism on the growth prospects of the firm. Leland and Pyle (1977) made a similar signaling argument assuming that the managers are also investors of the firm.

Myers and Majluf (1984) posed that because of information asymmetry, firms are careful in accessing external sources of funds. They argued, for example, that issuing new equity may signal that the shares are currently overpriced.

Myers (1984) posed a pecking order theory where firms prefer internal finance and when external financing is required, firms issue first debt, then hybrid securities before issuing new equity. It is assumed in this study that capital structure policy is relevant and given intense consideration by firms.

**Firm size.** Banz (1981) "found that smaller firms have higher risk-adjusted returns, on average, than larger firms" (p. 3). Zorn (2007) based the negative relationship of firm size and cost of equity on the "greater availability of information on management and potential earnings of bigger companies" (p.29) that reduces the uncertainty of returns thus the cost of equity.

Alberts and Archer's (1973) results also offer qualified support that the cost of equity decreases with firm size but argues that conglomerate rather than horizontal size should be considered. They defined conglomerate size as the number of industries and markets in which their sample companies conduct business.

### 3 Methodology

The basic methodology of the study consists of data collection, data analysis, statistical analysis and regression estimation. The audited financial statements and SEC Form 17-A are gathered from the websites of the individual companies and the PSE or collected from the database of the SEC.

#### 3.1 Dependent Variable

The adjusted earnings- price ratio (ADJUSTED\_E\_P\_MEDIAN\_) is used as proxy for the cost of equity capital similar to the same measure utilized by Li and Stokes (2008). The adjusted earnings- price ratio

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<sup>1</sup> Copeland and Weston (1988) summarized these assumptions; "1) capital markets are frictionless, 2) individuals can borrow and lend at the risk-free rate, 3) there are no costs to bankruptcy, 4) firms issue only two types of claims: risk-free debt and equity, 5) all firms are assumed to be in the same risk class, 6) corporate taxes are the only form of government levy, 6) all cash flows streams are perpetuities, 7) corporate insiders and outsiders have the same information and managers always maximize shareholders' wealth."

is computed by getting the difference of the individual earnings- price ratio and the industry (sector) earnings- price ratio.

### 3.2 Control Variables

**Growth Opportunities (MARKET\_TO\_BOOK).** The market-to-book ratio is used as the growth measure following Yu (2003), with the expectation that the higher the growth opportunities, the lower the cost of equity capital.

**Leverage (DEBT\_RATIO).** The ratio of total liabilities to total assets is used to measure leverage computed by dividing the total liabilities by the total assets as of the balance sheet dates of the companies included in the sample. The hypothesis is that the firm's cost of equity capital increases as leverage increases. The total debt ratio is considered instead of the long-term debt ratio since there are a lot of companies in the sample with an unclassified balance sheet particularly those that belong to the financial institutions and utilities sectors.

**Firm size (LN\_ASSETS\_).** The proxy for firm size is estimated using the natural logarithm of total assets following Yu (2003). Most studies infer that the bigger the firm, the lower its cost of equity capital. Bigger firms have more liquidity and possess greater bargaining power with their suppliers of capital.

### 3.3 Audit Quality Variables

#### 3.3.1 Auditor Choice

##### 3.3.1.1 Audit Firm Size

A dummy variable equal to 1 is used if audited by a Big-N firm, 0 otherwise. Various Big-N firm iterations will be used as proxy for Firm Size. The main iteration that will be explored focuses on the top 5 firms in the Philippines.

**Top\_5.** The main iteration for firm size uses a dummy variable to represent the situation that the financial statements were audited by a Top 5 firm based on the annual survey rankings released by Businessworld for the Top 1,000 Corporations of the Philippines. The rankings were consistent throughout a ten-year period 2002-2011 (see Table 1). A dummy variable equal to 1 is used if audited by a Top 5 audit firm, 0 otherwise.

The Top 5 Firms are as follows:

- 1) SyCip Gorres Velayo & Co.
- 2) Isla Lipana & Co.
- 3) Manabat Sanagustin & Co. (Laya Mananghaya & Co.)
- 4) Punongbayan & Araullo
- 5) Manabat Delgado Amper & Co. (C.L. Manabat & Co.)

As seen in Table 1, each firm accounted for at least 3% of the financial statements of the Top 1,000 Corporations in each of the 10 years. The next biggest audit firm accounted for 1% of the total for each year. The five biggest local audit firms were also affiliated with the biggest firms in the United States<sup>2</sup>. These international rankings are based on "The 2011 Accounting Today" released by Thomson Reuters. These rankings are based on total revenues for the year 2010 as shown in Table 2. The five biggest Philippine firms were affiliated with the biggest firms worldwide as follows:

- 1) Manabat Delgado Amper & Co. (C.L. Manabat & Co.) --- Deloitte
- 2) Isla Lipana & Co. --- Price Waterhouse Coopers
- 3) SyCip Gorres Velayo & Co. --- Ernst & Young
- 4) Manabat Sanagustin & Co. (Laya Mananghaya & Co.) --- KPMG
- 5) Punongbayan & Araullo --- Grant Thornton

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<sup>2</sup> Affiliations with the biggest international accounting firms provide competitive advantages such as the provision of technology-driven tool sets, opportunities for training and human resource sharing, availability of industry expertise, continuing updates on international accounting and auditing standards, referrals of companies affiliated with global multinational companies, etc.

### 3.3.1.2 Audit Firm Switches (CHANGE\_IN\_FIRM)<sup>3</sup>

Dummy variables are also assigned if a company switches from one audit firm to another; 1 if there is a switch during that year and 0 otherwise.

## 3.3.2 Auditor Tenure

### 3.3.2.1 Audit Firm Tenure (FIRM\_TENURE)

The number of consecutive years the firm acts as auditor of the sample company is also considered. A base year is selected (2010) and for each sample company, the tenure of its auditor as of balance sheet date 2010 is determined. Year 2010 data is set as the base year since it has the highest number of observations over the study period (53 out of the 56 companies, against only 7 in 2011). It is assumed that the tenure of the audit firm is “long” if it exceeds 3 years and “short” otherwise. Audit tenure is modeled as a dummy variable in the procedures. Three years correspond to three audit seasons, which is defined as “long” for the study since that implies that the auditor has likely covered the 3 periods required in the comparative statements of comprehensive income.

### 3.3.2.2 Engagement Partner Rotation (PARTNER\_ROTATION)<sup>4</sup>

A dummy variable equal to 1 is assigned if a change in engagement partner was made during that particular year, 0 otherwise. This was done by noting down changes in the partner-in-charge based on the Independent Auditor’s Report.

## 3.4 Statistical Analysis

Multiple regression models are estimated using Pooled Ordinary Least Squares except for Auditor Tenure wherein Ordinary Least Squares for year 2010 cross-sectional data was used. Cross-sectional time series data based on the 56 firms are included in the study. An unbalanced panel was created based on the 56 firms and the relevant years (2004-2011) for the following Audit Quality dimensions:

General Form of the Regression Model:

$$\text{Cost of Equity Capital} = \beta_0 + \beta_1 \cdot \text{GROWTH} + \beta_2 \cdot \text{FIRM SIZE} + \beta_3 \cdot \text{LEVERAGE} + \beta_4 \cdot \text{AUDIT QUALITY} + \varepsilon$$

Using **Auditor Choice** as audit quality dimension:

*Audit Firm Size*

$$\text{ADJUSTED\_E\_P\_MEDIAN\_} = \beta_0 + \beta_1 \cdot \text{MARKET\_TO\_BOOK} + \beta_2 \cdot \text{LN\_ASSETS\_} + \beta_3 \cdot \text{DEBT\_RATIO} + \beta_4 \cdot \text{TOP\_5} + \varepsilon$$

*Audit Firm Switches*

$$\text{ADJUSTED\_E\_P\_MEDIAN\_} = \beta_0 + \beta_1 \cdot \text{MARKET\_TO\_BOOK} + \beta_2 \cdot \text{LN\_ASSETS\_} + \beta_3 \cdot \text{DEBT\_RATIO} + \beta_4 \cdot \text{CHANGE\_IN\_FIRM} + \varepsilon$$

$$\text{ADJUSTED\_E\_P\_MEDIAN\_} = \beta_0 + \beta_1 \cdot \text{MARKET\_TO\_BOOK} + \beta_2 \cdot \text{LN\_ASSETS\_} + \beta_3 \cdot \text{DEBT\_RATIO} + \beta_4 \cdot \text{Various Iterations of Audit Firm Switches} + \varepsilon$$

<sup>3</sup> Possible reasons for a shift to another audit firm include dissatisfaction with the audit quality and performance of the predecessor auditor, strategic direction of the parent company, locally or globally, to switch to affiliated audit firms, reasonableness of professional fees, etc.

<sup>4</sup> Securities Regulation Code Rule 68, as amended in 2005, requires that the external auditors be “rotated every five years of engagement and in the case of a firm, the signing partner shall be rotated every after said period.” Requirements related to the term of the association of audit firms to their client companies are continuously deliberated by international standard setting bodies and local regulatory agencies.

Using **Auditor Tenure** as audit quality dimension:

*Audit Firm Tenure*

$$\text{ADJUSTED\_E\_P\_MEDIAN\_} = \beta_0 + \beta_1 * \text{MARKET\_TO\_BOOK} + \beta_2 * \text{LN\_ASSETS\_} + \beta_3 * \text{DEBT\_RATIO} + \beta_4 * \text{FIRM\_TENURE} + \varepsilon$$

*Engagement Partner Rotation*

$$\text{ADJUSTED\_E\_P\_MEDIAN\_} = \beta_0 + \beta_1 * \text{MARKET\_TO\_BOOK} + \beta_2 * \text{LN\_ASSETS\_} + \beta_3 * \text{DEBT\_RATIO} + \beta_4 * \text{PARTNER\_ROTATION} + \varepsilon$$

These variables are defined as follows:

- ADJUSTED\_E\_P\_MEDIAN\_ = Adjusted Earnings to Price Ratio
- MARKET\_TO\_BOOK = Market Price to Book Value per share Ratio
- LN\_ASSETS\_ = Natural logarithm of Total Assets
- DEBT\_RATIO = Total Liabilities to Total Assets Ratio
- TOP\_5 = 1 if audited by a Top 5 local audit firm, 0 otherwise
- CHANGE\_IN\_FIRM = 1 if a change in audit firm occurred during the year, 0 otherwise
- FIRM\_TENURE = number of years the audit firm acted as auditor; represented by a dummy variable of 1 if auditor tenure exceeds three years as of balance sheet date 2010 and 0 otherwise.
- PARTNER\_ROTATION = 1 if a change in audit partner occurred during the year, 0 otherwise.



**Table 1. Market Share of Audit Firms (Top 1,000 Corporations) based on BusinessWorld (2002 - 2011)**

Auditor		2002		2003		2004		2005		2006	
Alas, Oplas & Co. CPAs	AOC	5	0.5%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Alba Romeo & Co., CPAs (Alba Romeo & Co.)	ARC	8	0.8%	8	0.8%	8	0.8%	8	0.8%	11	1.1%
Commission on Audit	COA	20	2.0%	20	2.0%	22	2.2%	17	1.7%	23	2.3%
Constantino Guadalquiver Mendoza & Co.	CGM	8	0.8%	-	0.0%	6	0.6%	5	0.5%	6	0.6%
Diaz Murillo Dalupan & Co.	DMD	8	0.8%	10	1.0%	7	0.7%	7	0.7%	5	0.5%
Eulogio C. Lim	ECL	5	0.5%	5	0.5%	-	0.0%	-	0.0%	-	0.0%
General Form Financial Statement	GFF	5	0.5%	6	0.6%	7	0.7%	7	0.7%	12	1.2%
Guzman, Bocaling & Co.	GBC	8	0.8%	7	0.7%	5	0.5%	-	0.0%	-	0.0%
Ildefonso O. Que	IOQ	5	0.5%	-	0.0%	5	0.5%	-	0.0%	-	0.0%
<b>Isla Lipana &amp; Co. (Joaquin Cunanan &amp; Co.)</b>	<b>ILC</b>	<b>155</b>	<b>15.5%</b>	<b>162</b>	<b>16.2%</b>	<b>140</b>	<b>14.0%</b>	<b>134</b>	<b>13.4%</b>	<b>126</b>	<b>12.6%</b>
Jacquelin O. Yap	JOY	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Luis Canete & Co.	LCC	-	0.0%	-	0.0%	5	0.5%	6	0.6%	5	0.5%
Ma. Emma T. Sy Bang	MSB	-	0.0%	-	0.0%	-	0.0%	5	0.5%	-	0.0%
<b>Manabat Delgado Amper &amp; Co. (C.L. Manabat &amp; Co.)</b>	<b>MDA</b>	<b>35</b>	<b>3.5%</b>	<b>38</b>	<b>3.8%</b>	<b>41</b>	<b>4.1%</b>	<b>41</b>	<b>4.1%</b>	<b>38</b>	<b>3.8%</b>
<b>Manabat San Agustin &amp; Co. (Laya Mananghaya &amp; Co.)</b>	<b>LMC</b>	<b>80</b>	<b>8.0%</b>	<b>62</b>	<b>6.2%</b>	<b>74</b>	<b>7.4%</b>	<b>85</b>	<b>8.5%</b>	<b>90</b>	<b>9.0%</b>
Manzano, Panaligan & Co.	MPC	5	0.5%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Marcos T. Lim	MTL	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Mariano F. Ong	MFO	-	0.0%	-	0.0%	5	0.5%	5	0.5%	5	0.5%
Mercado, Calderon, Jaravata & Co.	MCJ	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Ocampo, Mendoza, Leong, Lim & Co.	OMLL	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Other Auditors (less than 5 FS audited)	OTH	205	20.5%	218	21.8%	204	20.4%	222	22.2%	212	21.2%
<b>Punongbayan &amp; Araullo</b>	<b>P&amp;A</b>	<b>45</b>	<b>4.5%</b>	<b>52</b>	<b>5.2%</b>	<b>53</b>	<b>5.3%</b>	<b>55</b>	<b>5.5%</b>	<b>52</b>	<b>5.2%</b>
R.S. Bernaldo & Associates	RBA	8	0.8%	7	0.7%	7	0.7%	7	0.7%	6	0.6%
Rachele S. Villanueva-Go	RVG	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Reyes Galang King and Company (Vicente E. Reyes and Asso.)	VRA	7	0.7%	7	0.7%	7	0.7%	8	0.8%	8	0.8%
Rosemarie R. Salvio-Leonida	RSL	-	0.0%	-	0.0%	-	0.0%	10	1.0%	11	1.1%
Rufino A. Manzano	RAM	-	0.0%	-	0.0%	6	0.6%	6	0.6%	5	0.5%
Senturias, Jimenez & Company	SJC	-	0.0%	-	0.0%	-	0.0%	5	0.5%	-	0.0%
<b>SyCip Gorres Velayo &amp; Co.</b>	<b>SGV</b>	<b>388</b>	<b>38.8%</b>	<b>398</b>	<b>39.8%</b>	<b>398</b>	<b>39.8%</b>	<b>367</b>	<b>36.7%</b>	<b>385</b>	<b>38.5%</b>
Unaudited	UAD	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Others (no breakdown for 2011)		-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
		<b>1,000</b>	<b>100%</b>	<b>1,000</b>	<b>100%</b>	<b>1,000</b>	<b>100%</b>	<b>1,000</b>	<b>100%</b>	<b>1,000</b>	<b>100%</b>

**Table 1 (continued). Market Share of Audit Firms (Top 1,000 Corporations) based on BusinessWorld (2002 – 2011)<sup>5</sup>**

Auditor	2007		2008		2009		2010		2011	
Alas, Oplas & Co. CPAs	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Alba Romeo & Co., CPAs (Alba Romeo & Co.)	5	0.5%	7	0.7%	-	0.0%	5	0.5%	-	0.0%
Commission on Audit	20	2.0%	7	0.7%	2	0.2%	3	0.3%	10	1.0%
Constantino Guadalquivier Mendoza & Co.	5	0.5%	6	0.6%	-	0.0%	-	0.0%	-	0.0%
Diaz Murillo Dalupan & Co.	7	0.7%	9	0.9%	-	0.0%	9	0.9%	11	1.1%
Eulogio C. Lim	-	0.0%	-	0.0%	8	0.8%	-	0.0%	-	0.0%
General Form Financial Statement	12	1.2%	4	0.4%	7	0.7%	2	0.2%	1	0.1%
Guzman, Bocaling & Co.	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Ildefonso O. Que	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
<b>Isla Lipana &amp; Co. (Joaquin Cunanan &amp; Co.)</b>	<b>119</b>	<b>11.9%</b>	<b>110</b>	<b>11.0%</b>	<b>105</b>	<b>10.5%</b>	<b>103</b>	<b>10.3%</b>	<b>117</b>	<b>11.7%</b>
Jacquelin O. Yap	5	0.5%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Luis Canete & Co.	7	0.7%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Ma. Emma T. Sy Bang	-	0.0%	7	0.7%	5	0.5%	4	0.4%	-	0.0%
<b>Manabat Delgado Amper &amp; Co. (C.L. Manabat &amp; Co.)</b>	<b>34</b>	<b>3.4%</b>	<b>33</b>	<b>3.3%</b>	<b>24</b>	<b>2.4%</b>	<b>33</b>	<b>3.3%</b>	<b>29</b>	<b>2.9%</b>
<b>Manabat San Agustin &amp; Co. (Laya Mananghaya &amp; Co.)</b>	<b>87</b>	<b>8.7%</b>	<b>103</b>	<b>10.3%</b>	<b>89</b>	<b>8.9%</b>	<b>103</b>	<b>10.3%</b>	<b>102</b>	<b>10.2%</b>
Manzano, Panaligan & Co.	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Marcos T. Lim	7	0.7%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Mariano F. Ong	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Mercado, Calderon, Jaravata & Co.	5	0.5%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Ocampo, Mendoza, Leong, Lim & Co.	-	0.0%	8	0.8%	11	1.1%	10	1.0%	-	0.0%
Other Auditors (less than 5 FS audited)	214	21.4%	228	22.8%	234	23.4%	222	22.2%	-	0.0%
<b>Punongbayan &amp; Araullo</b>	<b>59</b>	<b>5.9%</b>	<b>59</b>	<b>5.9%</b>	<b>65</b>	<b>6.5%</b>	<b>59</b>	<b>5.9%</b>	<b>55</b>	<b>5.5%</b>
R.S. Bernaldo & Associates	-	0.0%	-	0.0%	8	0.8%	9	0.9%	11	1.1%
Rachele S. Villanueva-Go	-	0.0%	-	0.0%	5	0.5%	3	0.3%	-	0.0%
Reyes Galang King and Company (Vicente E. Reyes and Asso.)	9	0.9%	8	0.8%	10	1.0%	9	0.9%	-	0.0%
Rosemarie R. Salvio-Leonida	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Rufino A. Manzano	7	0.7%	9	0.9%	9	0.9%	9	0.9%	-	0.0%
Senturias, Jimenez & Company	-	0.0%	6	0.6%	-	0.0%	-	0.0%	-	0.0%
<b>SyCip Gorres Velayo &amp; Co.</b>	<b>398</b>	<b>39.8%</b>	<b>396</b>	<b>39.6%</b>	<b>409</b>	<b>40.9%</b>	<b>409</b>	<b>40.9%</b>	<b>396</b>	<b>39.6%</b>
Unaudited	-	0.0%	-	0.0%	9	0.9%	8	0.8%	20	2.0%
Others (no breakdown for 2011)	-	0.0%	-	0.0%	-	0.0%	-	0.0%	248	24.8%
	<b>1,000</b>	<b>100%</b>	<b>1,000</b>	<b>100%</b>	<b>1,000</b>	<b>100%</b>	<b>1,000</b>	<b>100%</b>	<b>1,000</b>	<b>100%</b>

<sup>5</sup>Source: BusinessWorld (2004-2011). *Top 1000 Corporations in the Philippines*. Quezon City: BusinessWorld Publishing Corporation.

**Table 2. US Market Share of Audit Firms based on 2011 Accounting Today**

The 2011 Accounting Today Top 25 Firms

Rank	Firm	Year End	Revenues (in \$ mn.)	Offices	Partners	Professionals	Total Employees
1	Deloitte	Dec	\$10,938.00	100	2,883	33,688	45,730
2	PwC	June	\$ 8,034.00	73	2,204	21,661	29,546
3	Ernst & Young	June	\$ 7,100.00	77	2,300	17,500	24,600
4	KPMG	Sept	\$ 4,889.00	87	1,759	14,762	21,285
5	RSM / McGladrey & Pullen	April	\$ 1,378.87	88	742	4,895	7,130
6	Grant Thornton	Dec	\$ 1,085.70	50	514	3,580	5,294
7	BDO USA	June	\$585.00	39	263	1,682	2,497
8	CBIZ / Mayer Hoffman McCann	Dec	\$575.30	150	418	1,714	4,241
9	Crowe Horwath	March	\$481.00	26	249	1,559	2,315
10	BKD	May	\$391.00	29	246	1,209	1,814
11	Moss Adams	Dec	\$316.00	18	238	1,068	1,687
12	Plante & Moran	June	\$298.32	16	222	979	1,531
13	Eisner Amper	Jan	\$251.10	8	169	900	1,069
14	Marcum	Dec	\$250.80	18	144	567	916
15	Clifton Gunderson	May	\$243.00	41	226	1,427	1,844
16	Baker Tilly Virchow Krause	May	\$238.00	11	107	1,119	1,346
17	J.H. Cohn	Jan	\$230.00	11	150	610	1,008
18	Larson Allen	Oct	\$227.00	19	121	977	1,351
19	UHY Advisors	Dec	\$204.60	15	107	589	939
20	Dixon Hughes	Dec	\$193.00	22	134	723	1,080
21	Reznick Group	Sept	\$191.53	10	97	653	961
22	Rothstein, Kass & Co.	Dec	\$163.50	8	69	594	762
23	Parent Beard	Dec	\$163.00	24	147	686	1,031
24	EideBailly	April	\$151.80	19	94	982	1,327
25	Weiser Mazars	Dec	\$120.00	5	84	375	581

Source: Accounting Today 2011, Top 100 Firms, BNA Tax &amp; Accounting, Thomson Reuters, CCH, A Wolters Kluwer Business

### 3.5 Descriptive Statistics and Correlation Analysis

**Table 3. Descriptive Statistics of Dependent and Control Variables**

	<b>ADJUSTED_E_P_MEDIAN_</b>	<b>MARKET_TO_BOOK</b>	<b>LN_ASSETS_</b>	<b>DEBT_RATIO</b>
Mean	0.05	1.46	23.62	0.56
Median	(0.00)	1.08	23.49	0.49
Maximum	3.92	15.39	27.63	6.36
Minimum	(0.11)	(0.16)	19.73	0.01
Std. Dev.	0.27	1.44	2.01	0.54
Skewness	10.52	3.82	0.03	6.40
Kurtosis	142.09	31.3	1.83	61.94
Sum	14.01	448.99	7,274.90	171.59
Observations	308.00	308.00	308.00	308.00

The median for **ADJUSTED\_E\_P\_MEDIAN\_** is similar to previous studies particularly that of Li and Stokes (2008). Some of the companies had capital deficiencies resulting in a negative **MARKET\_TO\_BOOK** ratio while firms such as the Philippine Stock Exchange experienced extremely high ratios particularly in 2007. The mean (23.62) and median (23.49) of the **LN\_ASSETS\_** are almost the same. The mean and median for total assets are P89 billion and P16 billion respectively. High **DEBT\_RATIOS** were due to the capital deficiencies experienced by some firms yet some of the sample companies have very little debt. The mean and median for the debt ratio are 56% and 49%, respectively.

**Table 4. Pairwise Correlation Matrix of Dependent and Control Variables**

	<b>ADJUSTED_E_P_MEDIAN</b>	<b>MARKET_TO_BOOK</b>	<b>LN_ASSETS</b>	<b>DEBT_RATIO</b>
<b>ADJUSTED_E_P_MEDIAN_</b>	1.00	(0.28)	(0.24)	0.31
<b>MARKET_TO_BOOK</b>	0.31	(0.24)	(0.11)	1.00
<b>LN_ASSETS_</b>	(0.24)	0.30	1.00	(0.11)
<b>DEBT_RATIO</b>	(0.28)	1.00	0.30	(0.24)

Based on the pairwise correlation matrix, the control variables have low correlation coefficients ranging from (0.28) to 0.33. This indicates the low possibility that multicollinearity exists among the control variables included in the regression model.

### 3.6 Scope

The study aims to review the audited financial statement (AFS) submissions of selected Philippine listed firms for the eight-year period 2004-2011. Securities Regulation Code Rule 68.1 (2005) specified that listed firms are considered in violation of the code if their independent auditors issue an opinion other than unqualified. Thus, the scope of the study also includes audited financial statements for the period prior to the implementation of this regulation.

The scope of the study covers three industry sectors, namely: the financial institutions, property, and energy and utilities sectors. Energy and Utilities' firms included are based on the PSE classification "Electricity, Power, Energy and Water" within the Industrials sector. These sectors are chosen in order to include industries with varying levels of regulation. Financial institutions are included because of the heavy regulatory requirements imposed by the Bangko Sentral ng Pilipinas. The energy and utilities sector was included given that companies in this industry are also covered by various forms of regulation. Property companies are the least regulated among those covered in the study. Appendix A provides the number of companies in the study per sector as against the number of listed companies in that particular sector. Companies are organized by sector since the method in computing the dependent variable includes determining the industry median to get the adjusted earnings to price ratio.

Four hundred seventy-four firm-year observations were gathered based on 474 financial statements and reports. One hundred sixty-six out of the 474 firm-year observations are excluded because they suffered net losses during the period of study rendering their earnings-price ratio as irrelevant or because of incomplete information related to the control and audit quality variables. Given these, **308 firm-year observations** are included in the full sample based on **56 listed companies**. The breakdown is shown on Table 5 (see Appendix B for the complete list):

**Table 5. Distribution of Firm-Years and Listed Firms included in the Study**

Industry	No. of Firm-Year Observations	No. of Listed Firms
Financial Institutions	114	19
Property	147	26
Energy and Utilities	47	11
<b>Total</b>	<b>308</b>	<b>56</b>

## 4 Results

### 4.1 Control Variables

Across all pooled ordinary least squares regression models tested, the results for the control variables were consistent. Growth opportunities, leverage and firm size were all statistically significant at the 1 percent level in all pooled regression models. The results for the audit tenure regression model using 2010 cross-sectional data showed that only leverage was statistically significant at the 1 percent level although the other control variables still bear the expected signs.

The relationship between the cost of equity capital and the control variables were also consistent. Leverage was positively related to the cost of equity capital which means that as the level of debt of a listed firm increases, its cost of equity capital also increases. This relationship could be attributed to the decrease in financial flexibility and higher risk associated with higher debt levels. On the other hand, firm size has a negative relationship with the cost of equity capital. Across all regression models, the results show that the bigger the company is, the lower its cost of equity capital is as well. This could indicate that greater liquidity and more information associated with bigger companies lower their cost of equity capital. The results for Growth Opportunities showed a negative sign in the coefficients. This means that Growth Opportunities also lower the cost of equity capital.

The  $R^2$  of the regression results ranges from 19 to 25% providing a goodness of fit better than the studies in the Australian market ( $R^2$  mostly 5%). Most of the results reinforced the findings of the related studies.

### 4.2 Auditor Choice

#### 4.2.1 Audit Firm Size

**Table 6. Breakdown of Firm-Year Observations based on Audit Firm**

	Financial Institutions	Property	Energy and Utilities	Total	% of Total
SGV	71	113	39	223	72%
Isla Lipana & Co.	9	6	0	15	5%
Manabat Sanagustin & Co.	2	2	1	5	2%
P&A	25	16	6	47	15%
CL Manabat & Co.	0	2	0	2	1%
Others	7	8	1	16	5%
<b>Total</b>	<b>114</b>	<b>147</b>	<b>47</b>	<b>308</b>	<b>100%</b>

Clearly, most of the companies included in the sample were audited by SGV, 72% of the total. This is even higher than the market share of SGV based on BusinessWorld, which is around 40% of the Top 1,000 Corporations. The SGV website claims that the firm audits 54 of the Top 100 companies in the Philippines.<sup>6</sup>

The main regression model tested for Audit Firm Size defines Big-N auditors as those included in the Top 5 biggest local audit firms. The results are presented in Table 7.

**Table 7. Results for Audit Firm Size --- Top 5 Firms**

Variable	Coefficient	t-value	<i>p</i>
C	0.851	4.877	0.000
MARKET_TO_BOOK	-0.037	-3.871	0.000
LN_ASSETS_	-0.029	-4.067	0.000
DEBT_RATIO	0.188	7.002	0.000
TOP_5	<b>-0.182</b>	<b>-2.906</b>	<b>0.004</b>
R-squared			0.216
Adjusted R-squared			0.206
F-statistic			20.920

The results in Table 7 showed that Firm Size defined as being audited by one of the Top 5 audit firm, based on BusinessWorld Top 1,000 Corporations' survey, was **statistically significant**,  $p < .01$ . Based on these results, being audited by a Top 5 audit firm lowers the cost of equity capital given the negative sign of the coefficient for the **TOP\_5** variable in Table 7. The Top 5 firms are also affiliated with the biggest audit firms worldwide.

The significance of Audit Firm Size, defined as being audited by a Top 5 audit firm, may indicate that stockholders value the audit expertise of these big firms. A bigger firm may be associated with a superior audit program or greater audit proficiency gained from the deeper and wider client base of these firms. This may be proof that the stockholders perceive lower information risk when a big firm audits a listed firm and are willing to reduce their cost of equity capital.

This is consistent with the findings of Li and Stokes (2008) for the Australian market wherein they confirmed that there is a possibility that brand name reputation drives audit quality.

#### 4.2.2 Audit Firm Switches

The study earlier proposed the use of different iterations to test the significance of Audit Firm switches.

**Table 8. Results for Audit Firm Switch --- Change in Firm**

Variable	Coefficient	t-value	<i>p</i>
C	0.693	4.127	0.000
MARKET_TO_BOOK	-0.033	-3.407	0.001
LN_ASSETS_	-0.030	-4.167	0.000
DEBT_RATIO	0.196	7.208	0.000
CHANGE_IN_FIRM	<b>-0.021</b>	<b>-0.311</b>	<b>0.756</b>
R-squared			0.195
Adjusted R-squared			0.840
F-statistic			18.329

<sup>6</sup>Based on [www.sgv.ph](http://www.sgv.ph)

**Table 9. Results for Audit Firm Switch --- Other Iterations**

<b>Variable</b>	<b>Coefficient</b>	<b>t-value</b>	<b>p</b>
<b>C</b>	0.697	4.126	0.000
<b>MARKET_TO_BOOK</b>	-0.033	-3.401	0.001
<b>LN_ASSETS_</b>	-0.030	-4.166	0.000
<b>DEBT_RATIO</b>	0.196	7.211	0.000
<b>BIG5_BIG5</b>	<b>-0.044</b>	<b>-0.441</b>	<b>0.660</b>
<b>SMALL_SMALL</b>	<b>-0.046</b>	<b>-0.327</b>	<b>0.744</b>
<b>R-squared</b>			0.195
<b>Adjusted R-squared</b>			0.182
<b>F-statistic</b>			14.664

The above regression models showed Auditor Firm Switches as statistically insignificant. Based on the sample used, the thirteen audit firm switches that occurred during the study period were as follows:

**Table 10. Breakdown of Audit Firm Switches**

<b>Auditor Switch</b>	<b>Number of Switches</b>
Big 5 to another Big 5 (other than SGV)	9
Small Firm to Big Firm	1
Small Firm to another Small Firm	3
<b>Total</b>	<b>13</b>

The insignificant results are consistent with the results for audit firm size. Since most of the audit switches were to/from top 5 firms and to/from small firms, it is expected that these switches will not affect the cost of capital of the client company. Only one observation was noted wherein the company shifted from a small firm to one of the top 5 audit firms.

**Table 11. Number of Audit Switches per Year**

<b>Year</b>	<b>Number of Switches</b>
2005	1
2006	1
2007	5
2008	1
2009	3
2010	2
<b>Total</b>	<b>13</b>

While not explained in the financial statements, audit switches are likely affected by affiliation of a local firm with a multinational company or a conglomerate. It is reasonable to assume that the firm's choice of auditor is influenced by the auditor choice of its parent company, especially if the former's financial statements need to be consolidated with its parent or with other companies in the group. This is a possible explanation why auditor switches of the listed firms in the sample were mostly within the Top 5 audit firms. Most of the listed firms included in the study are part of a bigger group of companies that maintain the same set of external auditors.

### 4.3 Auditor Tenure

#### 4.3.1 Audit Firm Tenure

The results using Audit Firm Tenure as audit quality dimension is shown on Table 12:

**Table 12. Results for Audit Firm Tenure**

Variable	Coefficient	t-value	<i>p</i>
C	1.382	1.667	0.102
MARKET_TO_BOOK	-0.042	-0.804	0.425
LN_ASSETS_	-0.034	-0.997	0.324
DEBT_RATIO	0.171	2.115	0.040
FIRM_TENURE	<b>-0.563</b>	<b>-2.569</b>	<b>0.0134</b>
R-squared			0.248
Adjusted R-squared			0.186
F-statistic			3.961

A dummy variable was introduced to capture the effects of audit firm tenure, 1 if the tenure exceeds 3 years and 0 otherwise. Using Year 2010 as the base year, the number of years an audit firm acted as the auditor of a listed firm represented by the **FIRM\_TENURE** variable is **statistically significant**,  $p < .05$ . Also, the results show a negative relationship between audit firm tenure and the cost of equity capital. This means that the longer the tenure of the audit firm as independent auditor, the lower the cost of equity capital of the company being audited.

This may be related to the “audit expertise” notion of audit quality. The length of time may be associated to an increase in client-specific knowledge consistent with the results of Azizkhani et al. (2007). Stockholders probably view the audit firm tenure as indication of higher “financial reporting credibility” given that the auditor is already familiar with the accounting and audit issues of the client company.

Given that the firms in the study are all part of specialized industries (financial institutions, property, and energy and utilities sectors), the importance of acquiring industry and client-specific knowledge is more than emphasized. Transactions in these industries are not that easy to comprehend compared to the usual manufacturing companies. This is the probable reason why information risk is perceived to be lower if the auditor is familiar with and has experience in auditing companies in these specialized industries.

#### 4.3.2 Engagement Partner Rotation

The results in Table 13 show that Audit Tenure proxied by Engagement Partner Rotation is statistically insignificant.

**Table 13. Results for Engagement Partner Rotation**

Variable	Coefficient	t-value	<i>p</i>
C	0.700	4.173	0.000
MARKET_TO_BOOK	-0.032	-3.338	0.001
LN_ASSETS_	-0.030	-4.161	0.000
DEBT_RATIO	0.191	7.153	0.000
PARTNER_ROTATION	<b>-0.035</b>	<b>-1.130</b>	<b>0.259</b>
R-squared			0.198
Adjusted R-squared			0.187
F-statistic			18.695



This suggests that stockholders only take into consideration the length of the audit firm as auditor and are not particular with who is assigned as partner-in-charge for a client company. This may also indicate that client-specific knowledge is not dependent on the engagement partner but may be related to the firm as a whole or to the members of the audit team (given the likelihood of information sharing within the audit firm).<sup>7</sup>

Current rules require that engagement partners be rotated every five years. Although the length of the relationship may improve client-specific expertise, the retention of engagement partners may as well impair auditor independence if after five years, the engagement is assigned back to the audit partners of past years. The original suggestion was to rotate audit firms every five years but eventually rules, locally and abroad, were tempered by requiring engagement partner rotation instead.

## 5 Conclusion

Based on the results of the regression models tested, the control variables have the expected signs. Results showed that growth opportunities and firm size lower the cost of equity while leverage increases the cost of equity. This is consistent with the expectations based on the findings of related studies. Firm size, using the natural logarithm of total assets as proxy, growth opportunities, measured by the market to book ratio, and leverage, based on the debt ratio, were statistically significant.

For the audit quality variables, proxies for the **size of the audit firm** and **tenure of the firm** as auditor were statistically significant. The proxies for the other audit quality dimensions such partner rotation and change in auditors were statistically insignificant.

Based on the results, the choice of auditor is relevant given that companies included in the study being audited by the top audit firms have lower costs of equity. These results imply that the top audit firms may be perceived to have greater audit skill and experience, which lowers information risk for companies that hire these auditors. Moreover, audit firm tenure is determined to be statistically significant. This implies that audit and client expertise is achieved the longer an auditor is associated with a particular client-company. This perceived “greater expertise” may also mitigate information risk.

The results of the study suggest that stockholders value “audit expertise” represented by the two significant audit quality variables.

Audit expertise may be acquired in two ways:

- The development and actual use of a sound audit program using a wide client base as a venue to fine-tune the said program. This varied clientele is probably the advantage of the big audit firms.
- Specialization acquired through understanding the business and industry of specific clients through time. Specifically for client companies belonging to specialized sectors, the auditor must exert suitable effort to master the intricacies of certain businesses in order to properly render the appropriate opinion on the fairness of these clients’ financial statements.

The results of the study emphasize the importance of Auditor Competence—the ability to detect material misstatements and provide the corresponding audit opinion. Stockholders seek ways to assess auditor competence for them to accurately value the level of information risk reduced or even worsened by the presence of these independent third parties, the auditor.

The study finds that the audit quality variables of Audit Firm Size and Audit Firm Tenure act as signals to the stockholders and other stakeholders of the level of credibility of the financial statements that they depend on in making sound economic decisions.

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<sup>7</sup> Audit firms experienced a high turnover of employees and such the composition of the members of audit teams continuously change. It is likely that the engagement partner is the only common member of the audit team over the five-year relevant term. Technology-driven audit tool sets and stringent standards on working paper documentation aid in better file/information retention benefiting succeeding audit teams.

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## Appendices

### Appendix A

Industry	No. of Listed Firms in the Study	Listed Firms per Sector as of 2013	%	Listed Firms per Sector as of 2004
Financial Institutions	19	30	63%	29
Property	26	40	65%	28
Energy and Utilities	11	17	65%	7
<b>Total</b>	<b>56</b>	<b>87</b>	<b>64%</b>	<b>64</b>