

**DOES AUDITOR QUALITY CHARACTERISTICS MATTER TO INVESTOR?
THE TESTING OF DUAL ROLES AUDITOR ON BOND MARKET IN INDONESIA**

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ABSTRACT

This study aims to examine the influence of auditor quality characteristics, which are proxied by the auditor size and specialization as well as auditor tenure toward the cost of debt financing. The focus of the study was to test the dual roles of auditors in the bond market in Indonesia. Samples that used in this study were 554 observations during 2006-2010 period. The results showed that investors in Indonesia evaluate the dual roles of auditors (information role and insurance role) included in auditor size and specialization, although in different magnitude (the insurance role is more evaluated by the investor compare to the information role). These results imply that investors are not only assessing the reputation of "brand name" of the big auditors (Big-4), but also the expertise of auditor specialization. Overall, the results of this study provide empirical evidences that the auditor quality characteristics, namely auditor size and specialization are matter for bond market participants in Indonesia. Auditor tenure has negative impact on cost of debt financing, implying that the results are in line with government regulations concerning the obligation of rotation for Public Accounting Firms and Public Accountants. The results provide an evidence of the validity of agency theory. Through its dual roles, auditor size and specialization can reduce agency conflicts between management and investors. These results have methodological implications that medium auditors should also be considered in auditor size measurement instead of big and small auditors. The results are useful for regulators to draft Financial Reporting Act and to reinforce rules on rotation auditor in Indonesia.

Keywords: *auditors quality characteristics, cost of debt financing, dual roles auditors, bond market.*

INTRODUCTION

A country that relies on the capital market for issuing company investment supply is strongly influenced by investor's trust towards capital market. Investor's confidence toward the company's management will increase, among others if financial and other significant information can obtained in a transparent and reliable. This is where a competent public accountants and independent plays his roles.

Corporate accounting scandals occurring both overseas¹⁷ and in Indonesia¹⁸ involving large public accounting firm (PAF) such as Arthur Andersen, KPMG and PWC, provides evidences of audit failure. These cases can drive investors lost their trust in financial statements made by issuing companies.

DeAngelo (1981) states that auditors is required for its ability to find material misstatements and willingness to report. Two qualities that can produce a quality audit. Many studies have shown that the above two quality auditors attached to a large accounting firm (De Angelo, 1981; Watts and Zimmerman, 1981; Ebrahim, 2001; Francis and Yu, 2009). Compared to small accounting firms, large accounting firms more "identical" with high quality audits (De Angelo, 1981; Dopuch and Simunic, 1982).

Other research suggests that auditor tenure is directly proportional to the quality of the audit (Solomon *et al.* 1999; Carey dan Simnet, 2006). Auditor tenure is longer make auditors become more competent in doing audit work and in turn is able to produce higher quality audits (Solomon *et al.* 1999; Ebrahim, 2001; Geiger dan Ragunandan, 2002; Gosh dan Moon, 2002; Johnson *et al.* 2002; Myers *et al.* 2003; Carcello dan Nagy, 2004; Carey dan Simnet, 2006).

Results of quality audits enhance the credibility of financial statements in the eyes of investors so as to reduce its cost of capital. On the other hand, because of the financial statements as the basis for an investment decision, investors can sue responsibility of the auditor for audit failures that lost of investors. Thus the presence of the auditor not only enhance the credibility of financial statements, but also provide insurance on the investment of investors. However, the number of audit failures scandal has raised the question of whether investors are still considered important in the auditor characteristics.

Literatures on auditor characteristics stated that an auditor¹⁹ gives two roles that important to investor, namely information or assurance role and insurance or liability role (Dye,

1 i.e., Rothwells Limited, One-Tel, Harris Scarfe and HIH Insurance in Australia (Narsa, 2010); Australia (Narsa, 2010); Parmalat Group in Italy; A Hold in the Netherlands; Enron, Wolrd Com, Global Crossing, AOL TimeWarner, Aura Systems, Citigroup, Computer Associates International, CMS Energy, HealthSouth, Quest Communication, Xerox, Dynergy, Tyco, Adelphia, Peregrine, Sunbeam, Babbist Foundation of Arizona, and Waste Management, in the United States (Cheng *et al.* 2008); SK Group in Korea; Sanyo, Nikko Cordial, Kanebo, Livedoor in Japan (Skinner and Srinivasan, 2009).

2 i.e., PT Bank Summa, PT Bank Lippo, PT Bank Global, PT Kimia Farma, PT Indo Farma, PT Telkom, PT Pakuwon Jati, PT Great River Internasional, PT AGIS, PT KAI (Koroy, 2008; Narsa, 2010).

3 The terms PAF and auditors in this study are used interchangeably. Auditors referred to in this study is PAF that provide audit services to a client.

1993; Doogar *et al.* 2003; Mansi *et al.* 2004). The information role, which some researchers referred to as assurance role (Doogar *et al.* 2003; Brown *et al.* 2008) refers to audit main purpose which is to reduce information asymmetry between stakeholders and corporate management. According to Dye (1993), information role reflects audit value in quality improvement of resource allocation decision. Wallace (1987) stated that audit process will improve accounting information value, thereby improving financial information quality. Higher audit quality (credibility) improves the reliability of financial statements and reduces investor risk (Brown *et al.* 2008). Audit quality contributes to the credibility of the financial statement disclosure, so that the contract with the company can be made with lower cost, therefore reducing the cost of capital (Jensen and Meckling, 1976; Watts and Zimmerman, 1986; Ball, 2001).

The insurance role refers to investor's opportunity to sue auditors to obtain indemnities in relation to financial misstatement or audit failure (Dye, 1993; Brown *et al.* 2008). Dye (1993) and Li *et al.* (2009) stated that investors consider large or specialist auditors to be able to provide higher insurance in the events of audit failure. Capital market laws should provide protection for the investors against auditors, as investors often use financial statements as the basis for assets allocation decision (Mansi *et al.* 2004).

In Indonesia, there are no legal provisions governing investor's compensation claim to auditors for damages caused by financial misstatement. To this date, the aggrieved investors can only file complaints to regulators, such as the Capital Market and Financial Institution Supervisory Board (BAPEPAM-LK), Indonesian Institute of Accountants (IAI), and the Ministry of Finance through the Accountant and Appraiser Supervisory Center (PPAJP), as well as the Indonesian Institute of Certified Public Accountants (IAPI). Prior to the enactment of the Public Accounting Act (UU-AP) on May 2, 2011, violations committed by auditors²⁰ and KAP²¹ are solely regarded as violations against the code of conduct, therefore sanctions imposed only extended to administrative sanctions such as warnings, license suspension, and license revocation.

The new Public Accounting Act regulates administrative sanctions²² and criminal sanctions²³, but no concern on investor's compensation claim to auditors. Being a research question then: "do bond investors in Indonesia perceive precense of insurance from auditors?"

Empirical evidences to test whether auditor quality characteristics through its dual role is important for capital market participants are very limited and the results are varied (Mennon and William, 1994; Baber *et al.* 1995; Willenborg, 1999; Mansi, *et al.* 2004; Lenz and Ostrowski, 2005; Fortin and Pitmann (2004, 2007), and Brown, *et al.* 2008), even has never been done in

4 Is a person who has obtained a license to provide services as stipulated in the Public Accounting Act.

5 Business entity incorporated under the provisions of laws and regulations and obtains a business license based on the Public Accounting Act.

6 Regulated in Accountan Publict Act Chapter XII Articles 53 and 54.

7 Regulated in Accountan Publict Act Chapter XIII Articles 55-57.

Indonesia. This is due to the fact that auditor's insurance role has been proven to be very difficult to separate from the information role.

Mansi *et al.* (2004) have improved the methodology of previous studies to examine the impact of auditor quality (auditor size) and tenure on the cost of debt financing. Using bond market setting, they can separate dual role of auditor and discover that the quality (as measured by auditor size) and tenure of auditors have significant and negative relation with the cost of debt financing. This could imply that auditor quality characteristics through its dual role, the information and insurance roles, are important for capital market participants.

Based on Mansi *et al.* (2004) research findings above, this study aims to examine whether auditor quality characteristics is important for capital market participants in Indonesia. Specifically, this study will examine the impact of dual role, the information and insurance roles, covered in the auditor quality characteristics on the cost of debt financing in Indonesian bond market.

This study is significant to be conducted in Indonesia as it provides a unique setting to examine whether dual roles of auditor, the information and insurance roles, covered in auditor quality characteristics are evaluated by investors. Indonesia is considered to provide a unique setting because legal system and regulation governing public accountants and public accounting firms here is different from the United States. The Public Accounting Act ²⁴ has not yet regulating about investor's compensation claim to auditors, so that the question occurs: is dual role of auditor as information and insurance provider evaluated by investors?

Using a sample of 554 firm-years observation from 2006 to 2010, we find that investors in Indonesia evaluate the dual roles of auditors (information role and insurance role) included in auditor size and specialization, although in different magnitude (the insurance role is more evaluated by the investor compare to the information role). These results imply that investors are not only assessing the reputation of "brand name" of the big auditors (Big-4), but also the expertise of auditor specialization. Overall, the results of this study provide empirical evidences that the auditor quality characteristics, namely auditor size and specialization are matter for bond market participants in Indonesia. Auditor tenure has negative impact on cost of debt financing, implying that the results are in line with government regulations concerning the obligation of rotation for Public Accounting Firms and Public Accountants.

This paper is organized into five parts. The first starts with the background and the purpose of the study, which are follows by review of literature and hypothesis development. The research method follows and discussion of the result is next. The last part present several conclusion, implication, limitations and suggestion for future research.

²⁴ Enacted on May 2, 2011.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Rating, Bond Risk, and Audit Quality

It has been noted that bond is one of the source of financing for the government and the company, in which this finance is obtained from the capital market. Bonds are debt securities issued by a party (issuer) with a specific repayment period (over one year), accompanied by a written promise that in certain period or interval of time and its interest is paid in coupon to the bondholders. In the maturity principal money will also be paid to the bond holders concerned.

Bonds are usually ranked by the rating agencies regularly. Bonds are rated agencies that provide an overview of credibility and affect the sale of bonds (Fabozzi, 2000). Thus, it can be used to assist prospective investors in bonds to measure the risk of default. The higher bond rating, then it shows a high bond issuers ability to pay its debts (IBPA, 2010).

Accounting theories and literatures suggest that factors related to audit quality will affect the perception of market participants over financial statement information (De Angelo, 1981; Balvers *et al.* 1988; Beaty, 1989; Menon and Williams, 1991; Teoh and Wong, 1993; Michaely and Shaw, 1995; Muzatko *et al.* 2004). The level of auditor's audit quality or confidence is directly influenced by perceived level of independence shown by the auditor (De Angelo, 1981, Johnstone *et al.* 2001).

Bond rating agencies, as information intermediaries, provide independent assessment of the credit quality of the company. They should include information about auditor quality characteristics, because the agency can have access to insider and knowledge about the characteristics of quality auditor. Therefore, when the information content of auditor quality characteristics cover bond ratings, the auditor size and specialization as well as auditor tenure, will significantly influence bond ratings. From the description above, the first hypothesis can be formulated as follows:

H1a: Auditor size and specialization has positive influence toward the bond rating.

H1b: Auditor tenure has positive influence toward the bond rating.

Dual Roles of Auditor and Effect of Auditor Quality Characteristics on the Cost of Debt Financing

Auditors have two roles that matter to capital market participants, namely the information and insurance roles (Wallace, 1980; Dye, 1993; Mansi *et al.* 2004). The research evidence was then proved by Menon and William (1994); Baber *et al.* (1995), Willenborg (1999), Lenz and Ostrowski (2005), Fortin and Pitmann (2007), and Brown *et al.* (2008).

Auditor quality characteristics in this study uses the proxies of auditor size and specialization as well as length of the relationship between auditors and their clients (tenure). According to Mansi *et al.* (2004), both auditor size and tenure are related to information and insurance roles of auditor. Lou and Vasvari (2009) found that industry auditor specialist is related to the cost of debt, which is evidenced by the fact that a company using industry auditor specialist (IAS) receives better rating and pays lower yield when issuing security bonds. Watts and Zimmerman (1981) predicted that large public accounting firms offer higher audit quality due to their higher monitoring ability. De Angelo (1981) found that the size of a Public Accounting Firms tends to be associated with the quality of audit service. Greater Public

Accounting Firms size and reputation are expected to reduce audit failures, which in turn have reputational incentive to ensure higher audit service quality.

Researches done by Solomon *et al.* (1999) and Hogan and Jeter (1999) suggested that auditors specializing in particular industry are generally associated with higher audit quality (supporting the auditor expertise hypothesis). Dunn and Mayhew (2004) found that industry auditor specialization is associated with better corporate disclosure, as measured by the evaluation of disclosure quality by analysts. Carcello and Nagy (2009) examined the relationship between industry auditor specialists and financial statement frauds, and provided strong evidence on the negative relation between industry auditor specialists and financial statement frauds by the clients. Lou and Vasvari (2009) examined the relationship between industry auditor specialist and the cost of public debt, and found that companies using industry auditor specialist (IAS) received better rating and paid lower yield when issuing security bonds. The results showed the evidence that rating agencies and bond investors assess the benefits of industry audit specialists.

Previous researches supporting the relationship between auditors and clients (tenure) provided information on audit quality. Solomon *et al.* (1999) stated that longer auditor tenure will reduce asymmetric information between auditor and the clients which leads to better audit quality. Ebrahim (2001) stated that auditor tenure possesses several positive impacts on the audit process efficiency as well as enhances the monitoring functions assumed by auditor.

From the literatures on previous researches, it can be concluded that both the auditors size and specialization and auditors tenure are related to audit quality. The given argument is that these second variables are the proxies of the information content of auditor quality (indicating information role), and auditor quality characteristics should be taken into account by bond rating agencies in assessment to determine bond rating as well as should be evaluated by investors as prospective buyer of the bonds.

Based on the literatures and previous researches above, the second (a and b) and third hypothesis (a and b) can be formulated as follows:

H2a: Auditor size and specialization has negative influence toward credit spread.

H2b: Auditor tenure has negative influence toward the credit spread.

H3a: Auditor size and specialization has positive influence toward investor's evaluation of auditor's information role.

H3b: Auditor tenure has positive influence toward investor's evaluation of auditor's information role.

Economic Consequences on Auditor Choice

Previous researches related to economic consequences of audit is whether the impact of auditor choice is larger for riskier companies, showing that the company risk influences the behaviors of the company, auditor, and investor. Christensen *et al.* (1999) stated that companies with poor performance prefer to report more aggressively than companies with better performance. Shu (2000) found that auditor's litigation probability increases along with the company risk. Studies conducted by Barry and Brown (1985) and Merton (1987) proved that investors face the risk premium when asymmetric information between the manager and investor occurs. Mansi *et al.* (2004) stated that high value of auditor quality, with "deep

pockets", increases along with the company risk. Based on the results of previous studies, the fourth hypothesis to be tested in this study are as follows:

H4a: The influence of auditor sizes and specialization toward investor's evaluation of auditor's dual role, greater for riskier companies (speculative grade) than less risky companies (investment grade).

H4b: The influence of auditor tenure toward investor's evaluation of auditor's dual role, greater for riskier companies (speculative grade) than less risky companies (investment grade).

RESEARCH METHOD

Research Data and Sample

The data is the financial data, including audited financial statements, nominal value of the bonds, closing price of the bonds, and interest rate of the bonds, as well as non-financial on the company's choice of auditor, issued date (settlement bond, maturity date, and bond rating). Sources of data of the audited financial statement and bond price data were taken from the Indonesia Stock Exchange, the Indonesian Capital Market Directory, Capital Market Reference Center, and the Data Center Business of Faculty of Economics and Business Gadjah Mada University.

The data related bond rating and corporate bond were obtained from PT Pemeringkat Efek Indonesia (PEFINDO), PT Indonesian Central Securities Depository (KSEI), and Indonesia Bond Pricing Agency (IBPA). The data related government bonds were obtained from the Directorate of Debt Management, Ministry of Finance of the Republic of Indonesia. The population consist of all the companies that issue the bonds, in the research periode of 2006 - 2010. Sampling is purposive sampling methode, as based on the criteria such as they should have: a) information on auditor choise from 2006-2010, audited financial statements in row between the years 2006-2010, c) data available for a complete bond of the years 2006-2010, including the settlement date, maturity date, face value, bond rating, etc. d) konvensioal bond (not islamic bond).

Description of the Sample

The sample was selected trough observation with 544 observation as shown in table 1.

Table 1. Sample Characteristic

Total of the sample observed from 2006-2010	554
Total of observed sample using big auditor and specialist	339
Total of observed sample using big auditor and non-specialist	14
Total of observed sample using medium auditor and specialist	99
Total of observed sample using medium auditor and non specialist	72
Total of observed sample using medium auditor and non specialist	30
Total of observed sample using small auditor	554
Total of observed sample including <i>investment grade</i>	533
Total of observed sample including <i>speculative grade</i>	21
	554

Research Variables

It consist of dependent variables, including credit rating (bond ratings) and credit spread; the independent variables such as auditor size and specialization, auditor tenure; the controlled variables, based on the variables in previous which studies (Mansi *et al.* 2004 and Lou and Vasvari, 2008) which are known to affect credit rating and credit spreads, include: (1) company's risk factors: firm size, leverage, profitability, coverage, firm age and bank debt; (2) security risk factors: maturity/bond tenor, bond size, duration; (3) macroeconomic risk factors: rupiah exchange rate against US dollar and inflation.

Operational Definition and Variable Measurement

Auditor size. De Angelo (1981) stated that audit quality is defined as high audit independence as the possible factors that auditors can find and report violations within the client's accounting system. In this case discovery violation is a measure the quality of audits related to knowledge, experience, and ability of auditor. Therefore, the quality of an audit can be proxied by auditor size and specialization. This study uses the Big 4 as large auditors²⁵, medium auditors (KAP non-Big 4 affiliated to KAPA and OAA), and small auditors (non-Big 4, not affiliated to KAPA and OAA).

Specialization auditor is the auditor who has the knowledge and expertise to the financial statements on a particular industry and can provide a better audit quality (Lou and Vasvari, 2009). This study uses a portfolio approach on the grounds that the portfolio approach is more relevant in measuring the auditor specialization compared with the approach of market share, because it is more focused on the auditor's expertise in a particular industry. Auditor specialization in this study are based on the number of clients in the industry that the company auditor listed on the Indonesia Stock Exchange in adding to the company going public but not included in the sample in accordance with the relevant industry. Auditors classified as a specialist in a particular industry if the number of clients exceeds average number of other clients in the industry. While classified as a non-specialist auditors if the number of clients at or below the average number of clients in the industry. Furthermore auditor specialization is measured by a dummy variable, 0 if the company uses specialist auditors, and 1 if not. Auditor

9 Including: 1) Price Water Coopers (PWC); 2) Deloitte Touche Tohmatsu; 3) Ernst & Young; 4) KPMG. Indonesian public accounting firms affiliated to the Big 4 are:

1. Drs. Hadi Sutanto & Co (2000-2003); Haryanto Sahari and Partners Public Accounting Firm (2004-2009); Tanudiredja, Wibisana and Partners Public Accounting Firm (2010) are affiliated to PWC Public Accounting Firm.
2. Hans Tuanakotta and Partners Public Accounting Firm (2000-2004); Osman Ramli Satrio Public Accounting Firm (2005-2008); Osman Bing Satrio Public Accounting Firm (2008-2010) are affiliated to Deloitte Touche Tohmatsu Public Accounting Firm.
3. KAP Hanadi, Sarwoko and Sanjaja (2000-2002); KAP Prasetyo, Sarwoko, and Sanjaja (2003-2005); KAP Purwantono, Sarwoko, and Sanjaja (2006-2009); KAP Purwantono, Suherman and Surja (2010) are affiliated to Ernst & Young Public Accounting Firm.
4. KAP Sidharta, Sidharta and Widjaya is affiliated to KPMG Public Accounting Firm.

size and specialization variables measured by ordinal scale as follows: large with specialization= 1; Large unspecialized= 2; Medium with specialization= 3; Medium unspecialization = 4; Small=5. The goal is to test whether there is a difference in quality between the group auditor. Small auditors categorized as 5 because the focus of this research is small auditor.

Auditor tenure. Auditor tenure is the relationship duration between auditor and the client. Auditor tenure is measured by the length of time since auditors received their first assignment for particular client.

Information Role. Information role refers to the main purpose of audit which is to reduce asymmetric information between stakeholders and company management. Wallace (1987) stated that audit process will improve accounting information value, thereby improving financial information quality. Higher audit quality (credibility) will improve financial statement reliability and reduce investor risk (Brown *et al.* 2008). The measurement for this variable can be seen in the description of the first hypothesis testing.

Insurance Role. The insurance role refers to investor's opportunity to sue auditors to receive refund or losses in relation to financial misstatements (Brown *et al.* 2008). In Indonesia, the law governing investor's compensation claim against the auditor for losses caused by the financial misstatement does not exist, therefore the insurance role in this study is defined as the opportunity for investors to sue or file a complaint against the auditor due to financial misstatements to regulators such as BAPEPAM-LK, IAI, and the Ministry of Finance (through PPAJP or IAPI). The measurement of insurance role variable can be seen in the description of the second hypothesis testing.

Bond Rating. Bond rating is the main indicator of the risk, issued by rating agency. Bond rating is an objective opinion in assessing the ability and willingness of an issuer to meet its financial obligations in a timely manner. Bond rating indicates investor's possibility in regaining investments as promised, but does not provide specific predictions on default probability. The higher rate of bonds, the less likely these bonds fail to meet their obligations in the future. The researcher uses bond rating data from PEFINDO, with the following measurements: *id*AAA: 1, *id*AAA-: 2; *id*AA+: 3; *id*AA:4; *id*AA-:5; *id*A+:6; *id*A: 7; *id*A-:8; *id*BBB+:9; *id*BBB: 10; *id*BBB-: 11; *id*BB+: 12; *id*BB: 13; *id*BB-:14; *id*B+:15; *id*B:16; *id*B-:17; *id*CCC+: 18; *id*CCC: 19; *id*D: 20.

Bond rating can be grouped into two, namely investment grade and non-investment grade/speculative grade (IBPA, 2010). Investment grade are high grade bonds, reflecting low credit risk (high creditworthiness). Non investment grade/speculative grade are low grade bonds, reflecting high credit risk (low creditworthiness). Bond ratings considered as investment grade are ranked from *id*AAA to *id*BBB (score 1-10) while the others are considered as noninvestment grade (score of 11-20).

Credit spread. Cost of debt financing in this study is measured by credit spread (proxies from the rate of return desired by investors). Credit spread is a premium risk, an additional risk borne by the corporate bond investor compared to the investment in risk-free securities. This study calculates credit spread by looking at the difference between the yield to maturity and current yield of corporate bonds and the yield to maturity as well as the current yield of government bonds. To estimate the credit spread of a company issuing more than one type of bonds, the credit spread for each bond is calculated, then the company credit spreads are calculated as weighted average (by market value) of multi-bond credit spreads.

Classical Assumption Testing Method

Prior to the hypothesis testing, classical assumption test is conducted. This test must include a regression model so that the model can provide unbiased regression or result the Best Linear Unbiased Estimator (BLUE) (Gujarati, 1995). The classical assumptions are multicollinearity, heteroscedasticity, and autocorrelation.

Hypothesis Testing Methods

The First Hypothesis Testing Method

To testing the first hypothesis (1a and 1b) done by regressing auditor size and specialization (AS_SP), auditor tenure and other controlling variables on credit rating. The steps of analysis and model is drawn in the research built Mansi *et al.* (2004) by adding specialization spesification for auditor size and controlling variables of maturity (tenor) and bond size and macroeconomic factors include rupiah exchange rate against US dollar and inflation as follows:

$$\text{Credit Rating} = \alpha_0 + \alpha_1 \text{AS_SP} + \alpha_2 \text{Tenure} + \beta_1 \dots \beta_n \text{Company Risk Factors} + \gamma_1 \dots \gamma_n \text{Security Risk Factors} + \lambda_1 \dots \lambda_n \text{Macroeconomic Risk Factors} + \varepsilon \dots (1)$$

The controlling variable are based on research studies conducted by Mansi *et al.* (2004) and Lou and Vasvari (2009) such as: the company's risk factors, namely firm size, leverage, profitability, coverage, firm age and bank debt. Security risk factors include: maturity (tenor), bond size and duration. Macroeconomic factors include rupiah exchange rate against US dollar and inflation.

Credit rating agencies, as information intermediaries, provide an independent assessment of the credit quality of the company. Credit rating should include information content on auditor quality characteristics in bond rating, because rating agencies have access to insider information and knowledge about the characteristics of quality auditor. Therefore, when the information content of auditor quality characteristics covered in bond rating, the auditor size and specialization as well as auditor tenure have significant influence toward bond ratings. This could mean that bond rating captures the information role of auditor quality characteristics.

Second and Third Hypothesis Testing Method

The second hypothesis (2a and 2b) are tested by regressing auditor quality characteristics variable such auditor size and specialization (AS_SP) as well as auditor tenure in credit spread, by controlling bond rating and other factors known to affect credit spread. The model developed also refers to Mansi *et al.* (2004) as follows:

$$\text{Credit spread} = \alpha_0 + \alpha_1 \text{AS_SP} + \alpha_2 \text{Tenure} + \beta_1 \dots \beta_n \text{Company Risk Factors} + \gamma_1 \dots \gamma_n \text{Security Risk factors} + \lambda_1 \dots \lambda_n \text{Macroeconomic Risk Factors} + \varepsilon \dots (2)$$

The controlling variables are the same with model 1.

Since the variables of other information providers (credit rating and the relationship between banks) are included in the company risk factors, the information effect of auditor quality characteristic can be removed from the model. Such specification makes it possible to examine the insurance role on auditor quality characteristics to market participants (investor).

If the insurance effect is evaluated by investors, then we expect that for companies audited by large auditors and specialist, having long tenure will lower cost of debt financing (positive coefficients for α_1 and negative for α_2). These results could mean that investors assess that the auditor's insurance role is important for them. If the result is not significant (investors do not evaluate the insurance effect), this may mean that investors perceive that the lawsuits against auditors is not sufficient, but there must be a compensation claim to auditors concerning the financial misstatement.

The Third hypothesis (3a and 3b) tested by measuring total effects (information and insurance) of the auditor quality characteristics in *credit spread*. Testing is performed by orthogonalizing the variable of auditor size and specialization (AS_SP) as well as auditor tenure and other controlling variables, and re-estimating the equation (2) by replacing the Credit Rating variable with the Residual Rating. Residual Rating is the residual from the auditor size and specialization, auditor tenure and other controlling variables on Credit Rating. The model is as follows:

$$\text{Residual rating} = \text{Rating} - (\alpha_1 \text{AS_SP} + \alpha_2 \text{Tenure} + \beta_{1...n} \text{Company Risk Factors} + \gamma_{1...n} \text{Security Risk Factors} + \lambda_{1...n} \text{Macroeconomic Risk Factors}) \quad (3)$$

Because both the information and insurance effects have prediction in the same direction, we expect that the coefficient on the auditor quality characteristics variable (auditor size and specialization, auditor tenure) will increase if auditor's information effect is considered significant for investors. By comparing the results between the total effect (information and insurance) and the findings of previous models (solely on the insurance effect), we could test the effect of the auditor quality characteristics (auditor size and specialization, auditor tenure) toward investor's evaluation of auditors's information role.

Fourth Hypothesis Testing Method

In testing the hypothesis 4a and 4b in which the effect of auditor quality characteristics (auditor size and specialization, auditor tenure) is larger for riskier companies compared to less riskier companies, the action taken is by separate between non-investment grade (as the proxy for riskier company), for companies with the rating below $idBBB-$ and investment grade (as the proxy for less risky company), for companies with the rating between $idAAA-idBBB-$.

RESULTS AND DISCUSSION

Classical Assumption Test Results in Model 1 and Model 2

Multicollinearity test results shows that all the variables used, the tolerance (TOL) and VIF values are not exceeding the rule of thumb (for TOL = 1, VIF = 10). Thus, multicollinearity does not occur in model 1 and model 2.

The next classical assumption test is the heteroscedasticity test by using White Test. The testing criteria use the evIEWS program, in which when the probability value of Obs*R-squared is greater than α 5%, then heteroscedasticity does not occur, and vice versa. The test results show that the Obs*R-squared has the score 62.19 with probability of 0.000 for model 1 and 49.91 (for spread ytm) and 30.30 (for spread cy) with probability of 0.006 and 0.30 for model 2; which both indicate the heteroscedasticity. To correct the heteroscedasticity, the White method is conducted.

Another classical assumption test is the autocorrelation test using the Lagrange-Multiplier Test, as the sample for this study is relatively large (over 100 observations), it is inaccurate to use the Durbin-Watson Test. LM Test will result the Breusch-Godfrey statistics. The test results show that the coefficient parameters for residual lag-2 provide significant probability of 0.000, indicating a positive autocorrelation. To overcome the positive autocorrelation, the first level of differentiation is performed. Although the data have been differentiated in the first level, the models 1 and 2 are independent from two classical assumptions, the multicollinearity and autocorrelation, but heteroscedasticity remains. As the data characteristics do not allow heteroscedasticity correction, thus the classical assumptions are ignored.

Hypothesis Testing Results and Discussion

The result can be seen in table 2. The test results support the 1a hypothesis which states that auditor size and specialization has positive influence toward the bond rating, which means that bond rating has information role contained in the auditor size and specialization. The conclusion that can be drawn is that the bond rating captures the information role contained in auditor size and specialization. The result shows that rating agencies in Indonesia, in addition to considering the large auditor's "Brand Name" (Big-4) also assess the benefits of industry auditor specialization.

Table 2. Result of the First Hypothesis Testing

Independent Variables dan Control Variables *	Coeffisien (t-test)
Constanta	0,001 (0,013)
AS_SP	0,412*** (5,944)
Tenure	0,082* (1,700)
Firm Size	-0,453*** (-6,184)
Leverage	0,276 (1,604)
Profit	-6,006*** (-4,980)
Coverage	0,048** (2,150)
Firm Age	-0,303 (-1,443)
Bank Debt	-0,098 (-0,228)
Tenor	0,710*** (3,428)
BondSize	0,091** (2,314)

Duration	-0,152 (-1,183)
Kurs \$	-0,001* (-1,752)
Inflation	0,025 (0,912)
N	554
R ²	24,14

***= signifikan pada α 1%; **= signifikan pada α 5%; *= signifikan pada α 10%

- * Rating = Credit rating, measured by $idAAA=20$; $idD=1$.
- AS_SP = Size and specialization auditor, measured by ordinal scala: 1 for big auditor and specialist; 2 for big auditor and non- specialist; 3 for medium auditor and specialist; 4 for medium auditor and non specialist; 5 for small auditor.
- Tenure = Auditor tenure, measured by lenght of auditor assigment on an entity.
- Firm Size = The size of company, measured by natural logarithm of total asset.
- Leverage = Rasio of company leverage.
- Profit = Rasio of company profitability.
- Coverage = Rasio of company coverage.
- Firm Age = The age of company, measured by natural logarithm since the company established.
- Bank Debt = Bank debt, measure by 1= company with bank debt; 0 = otherwise.
- Tenor = Time to maturity of bond.
- Bond Size = The size of bond, measured by natural logaritm natural of nominal value of
- Duration = bond.
- Duration, measured by modified duration.
- Kurs\$ = Rupiah exchange rate agains US dollars
- Inflation = Inflation in the end year.

The coefficient of tenure variable directs to positive and significant, which means that the shorter tenure, the higher bond rating. This result shows that the hypothesis 1b which states that auditor tenure has positive impact on bond rating, that means that bond rating captures information role contained in long auditor tenure, is not supported.

Hypothesis 2a states that auditor size and specialization negatively effects on cost of debt financing. The coefficient variable of auditor size and specialization directs to positive and significant that indicates the smaller the auditor size, the greater the auditor spread (the greater the premium risk borne by investors). In other word, the smaller the auditor, the higher rate of return desired by investors. This shows that investors evaluate the insurance role in auditor size and specialization characteristics. The results also provide empirical evidence that bond investors assess the benefits from industry auditor specialist and support Lou and Vasvari's research (2009), finding out that companies using industry audit specialist (IAS) pay lower yield (lowering cost of debt financing) when issuing security bonds.

Considering the result above, it means that investors perceive that auditor size and specialization will provide better audit quality insurance, so that they desire low rate-of-return, while the spread is small. This means that investors in Indonesia are not merely looking for insurance on large auditors "brand name" (Big-4) but also seeing insurance the expertise possessed by an auditor specialization.

The coefficient of auditor tenure variable is positive and significant. This means that the longer auditor tenure, the greater its spread. Thus, hypothesis 2b stating that auditor tenure has negative influence toward credit spread, which means that the insurance role covered by auditor tenure evaluated by investors, is not supported. The result is not consistent with Mansi *et al.* (2004) which stated that the longer the auditor tenure, the smaller its credit spread. This result shows that investors evaluate the insurance role contained in long auditor tenure.

The test results support H3a, means that investors evaluate information role contained in auditor size and specialization. Thus, hypothesis 3a, stating that Auditor size and specialization has positive influence toward investor's evaluation of auditor's information role, supported. The evidence is consistent with Mansi *et al.* (2004). Seeing the value of the coefficient it is suggested that investors respond more to auditor's role insurance, as compared to auditor's information role. The evidence is also consistent with Dye (1991), Menon and Williams (1994); Baber *et al.* (1995), Willenborg (1999), Mansi *et al.* (2004), Brown *et al.* (2008).

Hypothesis 3b which states that investors evaluate the information role contained in auditor tenure is not supported. The coefficient of auditor tenure variable after being controlled by residual rating showing significant and positive direction can be inferred that the investor captures the information role from short auditor tenure. The result is not consistent with Mansi *et al.* (2004).

The results of hypothesis 4a and 4b testing show that the influence of auditor size and specialization, auditor tenure toward investor's evaluation of auditor's dual role is greater for riskier company (non-investment grade) compared to the less risky company (investment grade), is not supported. These results are not consistent with Mansi *et al.* (2004). The fourth hypothesis are not supported probably due to the small amount of sub-sample group of the non-investment grade (only 21 observations), making the overall sample less representative.

Table 3. Result of The Second and Thirth Hypothesis Testing

Independent Variable dan Control Variable	Variabel Dependen: Credit Spread			
	Yield To Maturity (YTM)		Current Yield (CY)	
	Rating	ResidualRating	Rating	ResidualRating
	(i)	(iii)	(iv)	(v)
Constanta	2,049 (0,672)	10,146*** (3,580)	-0,776 (-0,268)	6,351 (2,357)
AS_SP	0,121* (1,752)	0,230*** (3,426)	0,145** (2,215)	0,242*** (3,781)
Tenure	0,115* (1,872)	0,152** (2,496)	0,046 (0,795)	0,079 (1,369)
FirmSize	0,147* (1,946)	-0,042 (-0,592)	0,137* (1,909)	-0,029 (-0,434)

Leverage	-0,585*** (-2,615)	-0,450** (-2,018)	-0,592*** (-2,784)	-0,473 (-2,233)
Profitability	1,718 (1,211)	-1,012 (-0,741)	1,543 (1,145)	-0,860 (-0,662)
Coverage	-0,024 (-0,988)	-0,010 (-0,403)	-0,024 (-1,061)	-0,012 (-0,520)
FirmAge	0,347* (1,938)	0,210* (1,675)	0,477*** (2,804)	0,435 (2,561)
Bank Debt	0,202 (0,922)	0,485** (2,244)	0,177 (0,850)	0,425 (2,075)
Rating	0,277*** (7,207)		0,243*** (6,674)	
Residual Rating		0,277*** (7,207)		0,243*** (6,674)
Tenor	0,111*** (2,862)	0,133*** (3,441)	0,010*** (2,703)	0,119 (3,240)
Bond Size	-0,108 (-1,032)	-0,133 (-1,271)	-0,104 (-1,039)	-0,126 (-1,260)
Duration	-1,257** (-2,078)	-1,555** (-2,576)	0,218 (0,379)	-0,044 (-0,077)
Kur\$	-0,001*** (-3,810)	-0,001*** (-4,204)	-0,001** (-2,015)	-0,001 (-2,378)
Inflation	-0,028 (-0,628)	-0,007 (-0,166)	-0,028 (-0,660)	-0,009 (-0,233)
R ²	22,33	22,32	18,52	18,52
N	554	554	554	554

***= signifikan pada α 1%; **= signifikan pada α 5%; *= signifikan pada α 10%

Variabel Dependen: Credit Spread								
	Yield To Maturity (YTM)				Current Yield (CY)			
	Investment Grade		Speculative Grade		Investment Grade		Speculative Grade	
	Rating	Residual Rating	Rating	Residual Rating	Rating	Residual Rating	Rating	Residual Rating
	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
Constanta								39,721*
	3,948 (1,276)	8,296*** (2,950)	53,986 (1,594)	57,131* (2,289)	-0,396 (-0,133)	4,828* (1,781)	42,185 (1,651)	(2,110)
AS_SP								-
						0,211**		1,820*
	0,144** (2,088)	0,177*** (2,602)	-1,737* (-2,155)	-1,756* (-2,211)	0,171** (2,574)	* (3,214)	-1,835** (-3,016)	(-3,037)

Tenure	0,096 (1,587)	0,108* (1,773)	0,764 (1,497)	0,791 (1,680)	0,030 (0,511)	0,043 (0,741)	0.516 (1,342)	0,495 (1,395)
Firm Size	0,098 (1,241)	-0,005 (-0,063)	0,963 (1,455)	0,950 (1,450)	0,110 (1,448)	-0,013 (0,185)	1.065* (2,134)	1,075* (2,175)
Leverage	-0,535** (-2,415)	-0,453** (-2,058)	-5,414 (-0,543)	-4,595 (-0,575)	0,591*** (-2,768)	-0,492** (2,321)	-5.291 (-0,704)	-5,932 (-0,984)
Profitability	2,168 (1,498)	0,850 (0,610)	-12,304 (-1,221)	-12,716 (-1,321)	2,254 (1,616)	0,671 (0,499)	-8.249 (-1,085)	-7,926 (-1,092)
Coverage	-0,039 (-1,607)	-0,034 (-1,412)	0,128 (0,366)	0,143 (0,429)	-0,036 (-1,559)	-0,031 (1,316)	-0.071 (-0,268)	-0,082 (-0,328)
Firm Age	0,319* (1,794)	0,310** (1,740)	-1,420 (-0,380)	-1,251 (-0,354)	0,442** (2,575)	0,430** (2,508)	-1.519 (-0,539)	(-0,620)
Bank Debt	0,280 (1,293)	0,426** (2,006)	2,705 (0,928)	2,922 (1,192)	0,225 (1,078)	0,400* (1,957)	2.688 (1,222)	2,518 (1,362)
Rating	0,167*** (3,370)		0,058 (0,137)		0,200*** (4,199)		-0,045 (-0,143)	
Residual Rating		0,167*** (3,370)		0,058 (0,137)		0,200** (4,199)		-0,045 (-0,143)
Tenor	0,099** (2,557)	0,100** (2,575)	0,178 (0,368)	0,218 (0,560)	0,093** (2,499)	0,094** (2,521)	0.305 (0,834)	0,274 (0,934)
Bond Size	-0,106 (-1,001)	-0,118 (-1,112)	-2,005 (-1,628)	-2,119* (-2,327)	-0,086 (-0,845)	-0,100 (0,985)	-1.729 (-1,862)	1,640* (2,289)
Durasi	-1,265** (-2,137)	-1,392** (-2,358)	-33,980 (-1,239)	-36,073 (-1,582)	0,229 (0,402)	0,076 (0,134)	-21.891 (-1,058)	-20,252 (-1,178)
Kurs\$	0,001*** (-3,693)	-0,001*** (-3,818)	-0,001 (-1,461)	-0,001 (-1,487)	-0,001* (-1,760)	-0,001** (1,914)	-0.001 (-1,776)	(-1,772)
Inflasi	-0,031 (-0,709)	-0,022 (-0,490)	-0,001 (-0,001)	-0,011 (-0,035)	-0,036 (-0,838)	-0,024 (0,564)	0.183 (0,750)	0,191 (0,807)
N	533	533	21	21	533	533	21	21
R ²	14,77	14,77	87,53	87,52	12,81	12,81	90,18	90,18

Notes: dependent variable, credit spread, is calculated as difference between yield to maturity (ytm) and current yield (cy) and its duration-equivalent ytm and cy government bond. For firm with multiple bond issues, credit spread is calculated as a weighted average, based on each bond's market value.

* Rating	= Credit rating, measured by $idAAA=20; idD=1$.
Residual	= Residual from model 1 regression.
Rating	
AS_SP	= Size and specialization auditor, measured by ordinal scala: 1 for big auditor and specialist; 2 for big auditor and non- specialist; 3 for medium auditor and specialist; 4 for medium auditor and non specialist; 5 for small auditor.
Tenure	= Auditor tenure, measured by lenght of auditor assigment on an entity.
Firm Size	= The size of company, measured by natural logarithm of total asset.
Leverage	= Rasio of company leverage.
Profit	= Rasio of company profitability.
Coverage	= Rasio of company coverage.
Firm Age	= The age of company, measured by natural logarithm since the company established.
Bank Debt	= Bank debt, measure by 1= company with bank debt; 0 = otherwise.
Tenor	= Time to maturity of bond.
Bond Size	= The size of bond, measured by natural logaritm natural of nominal value of
Duration	= bond. Duration, measured by modified duration.
Kurs\$	= Rupiah exchange rate agains US dollars
Inflation	= Inflation in the end year.

Table 4. Results of The Fourth Hypothesis Testing

***= signifikan pada α 1%; **= signifikan pada α 5%; *= signifikan pada α 10%

Notes: dependent variable, credit spread, is calculated as difference between yield to maturity (ytm) and current yield (cy) and its duration-equivalent ytm and cy goverment bond. For firm with multiple bond issues, credit spread is calculated as a weighted average, based on each bond's market value.

Investment grade are high grade bond, ranked from $idAAA$ to $idBBB$ (score 1-10); non investment grade are low grade bond, reflecting high credit risk, ranked from below $idBBB$ (score 11-20).

* Rating	= Credit rating, measured by $idAAA=20; idD=1$.
Residual	= Residual from model 1 regression.
Rating	
AS_SP	= Size and specialization auditor, measured by ordinal scala: 1 for big auditor and specialist; 2 for big auditor and non- specialist; 3 for medium auditor and specialist; 4 for medium auditor and non specialist; 5 for small auditor.
Tenure	= Auditor tenure, measured by lenght of auditor assigment on an entity.
Firm Size	= The size of company, measured by natural logarithm of total asset.
Leverage	= Rasio of company leverage.
Profit	= Rasio of company profitability.
Coverage	= Rasio of company coverage.
Firm Age	= The age of company, measured by natural logarithm since the company established
Bank Debt	= Bank debt, measure by 1= company with bank debt; 0 = otherwise

Tenor = Time to maturity of bond
 Bond Size = The size of bond, measured by natural logarithm natural of nominal value of
 Duration = bond.
 Duration, measured by modified duration.
 Kurs\$ = Rupiah exchange rate against US dollars
 Inflation = Inflation in the end year.

Non-Parametric Test

Tabel 5 presents the result of non-parametric test. Non parametric testing with Kruskal Wallis Test is aimed at seeing whether there are differences for samples audited by large and specialist auditor, large and non specialist auditor, medium and specialist auditor, medium and non specialist auditor and small auditor; as well as short, medium, and long auditor tenure. The testing resulted that there are significant rating and spread average between samples audited by large and specialist auditor, large and non specialist auditor, medium and specialist auditor, medium and non specialist auditor and small auditor. Meanwhile, for tenure there are no differences of both rating and spread average between samples audited by auditor with long, medium and short tenure.

Tabel 5. Result of Parametric Test

	AS_SP				TENURE			
	G	N	MR	AS	G	N	MR	AS
RATING	1	339	232,10	0,00	1	309	279,55	0,774
	2	14	292,46		2	234	276,30	
	3	99	347,19		3	11	245,55	
	4	72	387,98		T	554		
	5	30	287,27					
	T	554						
SPREAD YTM	1	339	251,85	0,00	1	309	271,77	0,586
	2	14	281,61		2	234	285,65	
	3	99	338,67		3	11	265,00	
	4	72	315,34		T	554		
	5	30	272,73					
	T	554						
SPREAD CY	1	339	248,52	0,00	1	309	270,27	0,310
	2	14	259,43		2	234	288,74	
	3	99	350,04		3	11	241,45	
	4	72	324,51		T	554		
	5	30	261,18					
	T	554						

G = Group: AS_SP 1: big auditor and specialist; 2: big auditor and non- specialist; 3: medium auditor and specialist; 4: medium auditor and non specialist; 5: small auditor.

Tenur: 1: short (1-2 years); 2: medium (3-5 years); 3 long (> 5 years)

N = Total; MR = Mean Rank; AS = Asymtotic Significancy

CONCLUSION, IMPLICATION, LIMITATION, AND SUGGESTION

The results show that investors in Indonesia evaluate the dual role, namely the information and insurance roles that are included in auditor size and specialization quality characteristics, although in different magnitude (more at evaluating the insurance role than the information role of auditors). These results support the findings of Mansi *et al.* (2004) that investors evaluate the dual role of insurance and information included in auditor quality characteristics measured by auditor size. The evidence is also consistent with Dye (1991), Menon and Williams (1994); Baber *et al.* (1995), Willenborg (1999), Mansi *et al.* (2004), Brown *et al.* (2008).

Auditor tenure has negative influence toward the cost of debt financing, implying that the results are in line with government regulations concerning the obligation of rotation for KAP and AP as stated in the Decree of the Minister of Finance of the Republic of Indonesia (KMK-RI) No. 423/KMK.06/2002 about public accounting service, article 6 paragraph 4, regulating five year-period for public accounting firm rotation and three consecutive fiscal years for public accountant as well as the Regulation of the Minister of Finance (PMK), No.17/PMK.01/2008, Article 3, regulating six-year period for public accounting firm rotation and three-year period for public accountant.

The results of this study failed to prove that investors' evaluation of dual role included in the auditor quality characteristics is larger for riskier companies compared to less risky companies. In theory, company investors, whose bonds are speculative grade, which audited by small auditor are expecting greater insurance due to their premium risk, thus rate of return which required is large. The hypothesis is not supported possibly due to the fact that the sub-sample of riskier company (speculative grade) is relatively small (only 21 observations). Overall, the results of this study provide empirical evidences that the auditor quality characteristics, namely auditor size and specialization are important for bond market participants in Indonesia. Indonesian investors evaluate the insurance and information roles included in auditor size and specialization can be inferred that not only they evaluate the reputation of large auditors' "brand name" (Big-4), but also the expertise of auditor specialization.

Implication

Theoretical implications of this study are: first, confirm the agency theory. Empirical findings of this study indicate that the investor (in this study equated with shareholders) to evaluate dual roles covered by the size and auditor specialization means that the "brand name" of the big auditors and the "expertise" of specialized auditors provide assurance audits and insurance audits for rating agencies and bond investors so as to reduce the agency conflict between principal and agent, and will further reduce agency costs. Second, the results of this study do not support the theory of learning auditor for long tenure auditor, means that the long engagement between the auditor and the client, it will interfere with the independence of the auditor so evaluated investors will reduce audit quality.

Methodological implications arising from this study is the first, related to the size of the auditor's separate ways. This study separates the auditor size as follow: large and specialist auditor, large and unspecialist auditor, medium and specialist, medium and unspecialists auditor, as well as a small auditor to see if there is a difference between the five groups of

auditors. Additional analysis of the results, there are differences in the quality of audits for the five groups of auditors. It is important for the auditor or audit firm to determine the fee.

Second, in contrast to Mansi *et al.* (2004) and Lou and Vasvari (2009) which measures the Credit Spread (a proxy of cost of debt financing) of the difference between the yield to maturity (YTM) corporate bonds with government bonds (a proxy for risk-free bonds), this study measures the Credit Spread with two how the spread ytm (which measures long-term yields) and the current yield spread (yield short-term measure). The empirical results show that both the spread measurements give different results so that measurements spread with ytm and current yield is needed to be able to interpret the results more widely.

Regulatory implications, especially for Indonesian Institute of Accountants. First, the empirical findings of this study suggest that investors evaluate insurance role covered by auditor size and specialization. But it would be unfair if the risks of failure of financial reporting and accounting firm auditors imposed on it, while there are many parties involved in the financial reporting. This raises an important implication that in Indonesia requires Financial Reporting Act, which provides the legal basis for financial reporting and that clearly regulate and distribute proportionally and fairly all responsibility and financial reporting risks to all parties involved in the financial reporting such as: 1) issuing accounting standards; 2) issuing audit standards; 3) the authority of the capital market; 3) issuers of financial statements; 4) auditors; 5) PAF; 6) users of financial statements; 7) other stakeholders. Second, the empirical findings of this study provide evidence that auditors tenure evaluated by investors, and support policy rotation of PAF and PA in Indonesia. But it needs to be in the rules, when the PAF can return to the client that expired at the time the audit is coming. The absence of this rule will open up opportunities for the PAF to attract clients duration of one year after being released into another PAF. Or might happen exchange between PAF clients with particular deal.

Third, given that bond investors assess the dual role of auditor size and specialization, the empirical evidence is also expected to be a consideration for auditors in improving the quality of the provision of services to users in accordance with the "brand name" and "expertise" has.

Practical implications, the results of this study found empirical evidence that auditor specialization can reduce the debt financing boarding. But why is it that companies use large auditors and specialists less than that do not use big auditors and specialists? One reason that can be explained is that there is a trade-off between the benefits of using a large auditor and audit specialist with the boarding fee required by the large auditors and specialists. Decisions taken by the company whether large auditors and specialists choose or not depending on the marginal benefit additional above cost arising from use of the large auditors and specialists.

Research Limitations and Suggested Further Research

This study has several limitations that may affect the interpretation of the results, namely: first, the operational definition of insurance role in this research is adapted to Indonesian context that has not yet regulating investor's compensation claim against auditor due to financial misstatements. Therefore, insurance role is defined as an opportunity for investors to sue auditors due to financial misstatements. Further research should address the limitations of this study by presenting more appropriate operational definition of insurance role. Second, the operational definition of tenure in this study is the length of the relationship between the auditor with their klien, in accordance with the rules of rotation PAF and PA as

contained in the Decree of the Minister of Finance of the Republic of Indonesia (KMK-RI) No.. 423/KMK.06/2002 about public accounting firm, chapter 6, verse 4, which set the rotation for PAF is five years and for the PA is three consecutive financial year, as well as the Finance Minister Regulation (PMK) that PMK No.17/PMK .01/2008, Article 3, which set the rotation PAF is six years and to PA is three years, so it does not take into consideration the apparent rotation of auditors. Future research, should be conducted in more depth, by examining whether there are pseudo rotation of auditors and how they affect the quality of the audit.

Thirth, do not compare between countries that have laws similar, so the results can not be compared. Further research could be expanded to compare between countries that have laws similar to those in Indonesia so that the results can be generalized. Fourth, this study did not specifically examine the policy. Future research can be done by testing the effectiveness of the Act more specifically the AP 2011 and PA and PAF rotation policy, for example by testing the quality of the audit before and after the regulation is implemented.

Fifth, residuals are still in heteroscedasticity state, as the data characteristics do not allow the correction of heteroscedasticity, which resulted the loss of minimum variant (no longer the best) in smallest square method estimator, so that it only meets the characteristics of LUE (Linear Unbiased estimator). However, the smallest square method estimator is still linear and unbiased. Sixth, some variables, such as firm size, leverage, profitability, tenure, and bond size use natural logarithm so that the interpretation is included in this context as well.

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