

## THE EFFECT OF AUDITOR QUALITY ON BOND RATING: THE TESTING OF “INFORMATION ROLE” AUDITORS IN INDONESIA

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### ABSTRACT

*Measuring the company bond rating is important for the business nowadays. Auditor quality is considered an important factor. Therefore, it is important to see the effect of auditor quality on bond rating. The objective of this research is to investigate the relation between auditor quality characteristics (size, tenure and industry specialist auditors), and bond rating. Data used in this research are 1283 years-firm observation during 2000-2010. The results of this research find that auditor quality characteristics, auditor size and industry specialist auditor has a positive significant affect to bond rating, but auditor tenure not significant. The controlled variables as firm size, profitability, coverage, firm age, maturity, and bond size and bank debt are factored into firm's bond rating by credit rating agencies. Overall, our result suggests that trough their role of providing information, auditor quality (size and specialist industry) are important factors for the market participants.*

**Key words:** Auditor Quality, Bond Rating, Role of Auditor Information.

## PENGARUH KARAKTERISTIK KUALITAS AUDITOR TERHADAP RATING OBLIGASI: PENGUJIAN “INFORMATION ROLE” AUDITOR DI INDONESIA

### ABSTRAK

*Pengukuran rating obligasi (bond rating) pada perusahaan sangat penting bagi bisnis saat ini. Kualitas auditor dalam hal ini dianggap sebagai faktor penting. Oleh sebab itu, sangatlah penting jika kita meneliti pengaruh kualitas auditor pada bond rating perusahaan. Penelitian ini menguji pengaruh karakteristik kualitas auditor yaitu ukuran, tenor, dan spesialisasi industri auditor terhadap bond rating perusahaan. Data berasal dari 1283 perusahaan dengan masa observasi selama periode 2000-2010. Hasilnya menunjukkan bahwa karakteristik auditor, ukuran auditor, dan spesialisasi industri auditor memiliki hubungan positif dan signifikan terhadap bond rating, tetapi tenor auditor tidak. Adapun variabel kontrol misalnya, ukuran perusahaan, profitabilitas, coverage, umur perusahaan, kematangan, ukuran obligasi, dan hutang bank, merupakan faktor yang berpengaruh pada bond rating dengan credit rating agencies. Secara umum, hasil menunjukkan peranan pemberian informasi, kualitas auditor (ukuran dan spesialisasi industri) merupakan faktor penting bagi pelaku pasar.*

**Kata Kunci:** Kualitas Auditor, Peringkat Obligasi, Peran Informasi Auditor.

## INTRODUCTION

It is important to see whether auditor quality characteristics in connection with the capital market participants. In this case, this study attempts to investigate the role of the information depicted in auditor quality characteristics. Such characteristics are measured by size, and auditor industry specialization tenor against the bond ratings. It is clear that special bond ratings provide a useful context for examining the factors related to the perception of quality auditors. This is because bond rating agencies rely heavily on the information extensively audited financial statements for the fundamental analysis of the company.

Standard & Poor's (S & P) requires audited financial statements for the past 5 years in the process of rating. Furthermore, S & P Corporate Ratings Criteria (2003) states that "rating required audited data, and the rating does not entail auditing company financial records" (pp.22). This clearly indicates the dependence of bond rating agency analysis to the work of external auditors in attesting the reliability report of the corporate finance.

In the above condition, information about the quality of the auditor is the most important for bond rating agencies to provide an unbiased evaluation of the risk of default companies (De Crabtree et al. 2006). Therefore, the characteristics of quality auditors in the previous studies generally use a proxy size and tenor (e.g. De Angelo 1981; Wattz and Zimmerman 1981; Mansi et al. 2004; St. Pierre & Anderson 1984; Stice 1991; Carcello and Nagy 2004). The research is related to auditor industry specialization and quality auditor by Lou and Vasvari (2009), Carcelo and Nagy (2009), and Li et al. (2009). The argument can be given that researchers with knowledge and skills as well as the expertise are required. The financial statements of certain industries owned industry specialist auditors are considered important for he ability to detect material errors or misstatements in the financial statements which, in turn, will produce a

higher quality audit.

Again, the characteristics of quality auditors are analyzed by using a proxy measure (size) auditor or Public Accountant Offices (KAP), the length of the relationship between auditors and their clients (tenor), and auditor industry specialization. According to Mansi et al. (2004) both sizes auditor (KAP) and tenor auditors are related to the role of information and the role of guarantor (insurance) from the audit.

De Angelo (1981) analyzed the relationship between audit quality and size of the auditor. He states that the greater the size and reputation of the firm, the more reduction of the incidence of failures. This will indicate an audit failure, which in turn has a reputation incentive to ensure the quality of audit services. Watts and Zimmerman (1981) predicted that the Firm offers a higher quality audit because of its larger ability to monitor.

Ebrahim (2001) found a negative relationship between audit qualities as measured by the size of KAP (public accountant office) and earnings management behavior. Research by Francis and Yu (2009) find consistent evidence that the larger size of the KAP (Big-4) provides higher quality audits. In particular, they found evidence that the Firm issuing audit reports tend to be going concern, while the large audit clients KAP (Big-4) tended not to make an aggressive earnings management.

The previous research supports the relationship between auditors and clients (tenor). They provide information on audit quality (auditor learning theory). Solomon et al. (1999) found that the longer tenor auditors will reduce the asymmetry of information among the auditors and the clients. Thus, they can lead themselves to a better quality of audit. Ebrahim (2001) states that the auditor tenor has a positive effect on the efficiency of the audit process and improve the function of monitoring by auditors.

Geiger and Rangunandan (2002) found that the asymmetry of information between

the auditors and clients is high in the first year of assignment. Ghosh and Moon (2002), Johnson et al. (2002), Myers et al. (2003) found evidence that if tenor increases the earnings management through accrual discretionary, it will drop items. Carcello and Nagy (2004) the found that fraud of financial reporting is more likely to occur when the auditor tenor is less than 3 years.

The results of the research by Solomon et al. (1999) and Hogan and Jeter (1999) suggest that auditors who specialize in a particular industry are generally associated with higher audit quality (auditor expertise supporting the hypothesis). Dunn and Mayhew (2004) found that auditor industry specialization is associated with better corporate disclosure, as measured by the evaluation of the quality of disclosure by analysts.

Thus, even though Palmrose (1986) and Simon and Francis (1988) documented evidence that the Big-6 auditors obtained premium brand name on the free audit provides a higher quality audit. Yet, Craswell et al. (1995) stated that there was a specific industry premium, above the general brand name premium on audit fees generated by the industrial specialization of the Firm.

As based on the literature on previous research, it can be argued that both the size of the auditor (KAP), tenor auditor and auditor industry specialization are related to audit quality. Thus, it can also be argued that the third variable is a proxy of the information content of audit quality (reflecting the role of information). Bond rating agencies, as information intermediaries, provides an independent assessment of the quality of the audit firm. Bond ratings should include information on the characteristics of the quality of the content of the auditor, because the agency has an access to insider information and knowledge about the characteristics of quality auditors. If the information content of auditor quality characteristics covers bond ratings, the size, auditor industry specialization tenor, this

will have a significant effect on bond ratings.

Based on the crucial phenomenon above, the researchers find it important to do research related to the growth of the bond market which has increased from year to year. This phenomenon indicates that the bond market will show interesting trends in the coming years. For example, during the first semester of 2010, rupiah government bonds have recorded strong growth which increases by 44.1% per year. It is considered higher than the growth in 2009 at 37.6% per year (DGAT 2010). It could not be separated from economic conditions both globally and domestically.

Based on the observation by the researchers, the global economy has showed indications such as, i) improvement in the global economic outlook which prompted investors to invest their funds back to the capital market assets. ii) Increased risk intention, buoyed by interest rate which is controlled and maintained low, make a request (demand) of bonds increase, continue the increased trend from year to year. iii) The price of bonds has strengthened, especially in Emerging Market countries. The above condition is conducive due to the fact that the issuer tries to raise funds from the market. iv), the condition of the world economy indicates favorable conditions for investors to invest in the bond market. However, until now there has been no research in Indonesia, which investigates how the characteristics of quality auditors are measured by size, auditor specialization tenor, and affect corporate bond ratings.

## **THEORETICAL FRAMEWORK AND HYPOTHESIS**

In this case, there are four important aspects such as signaling theory, agency theory, contracting theory, and Quality Audit. The issuance of corporate bond ratings could be explained either by signaling theory and agency theory or the theory of contract. According to Wolk et al. (2001) signaling theory explains why the company can present

information to the capital markets.

The above argument is due to the ability of this theory in providing signals to the users of financial statements. This signal is in the form of information about what has been done by the management to realize the wish of the owner. The signal can be either promotion or other information that companies are better than other companies. Signaling theory explains that signaling by managers to reduce information asymmetry. By hiring an auditor to verify the financial statements, the manager gave a positive signal for the user.

However, the quality of investor in making decisions are influenced by the quality of information disclosed in the company's financial statements. The quality of information is aimed at reducing the information asymmetry that arises when managers are more aware of internal information and future prospects of the company than the company externally. The information for the provision of corporate bond ratings is expected to be published on the company's financial condition concerning a specific signal that illustrates the possibilities that occur related to the debt incurred.

The established agency theory is as an attempt to understand and solve problems that arise when there is incomplete information at the time of the contract between the principal (the employer, such as shareholders, or management companies) and the agents (receiver commands, such as management or subordinate). This theory was formerly pioneered by Jensen & Meckling (1976), which investigated the relationship between the owner of the management framework and the agency relationship. In an agency relationship, there was a contract between the parties, owners, and other parties.

Under the contract, the agent is bound to do some service for the owner based on the delegation of authority from the owner to the agent. Thus, they have to make business decisions for the benefit of the owners. Because the interests of both parties are not always consistent, so often there is a clash of

interest between owners (principals) are entrusted with the task of managing the firm (agent).

In the context of the agency, both the principal and the agent are viewed as rational economic actors who act solely for personal interest. In practice, managers do not always act in accordance with the wishes of the owners (shareholders). This is due to the existence of moral hazard, for example the desired action by the managers when acting for personal gains, and ignores the interests of shareholders. For that reason, it is not in accordance with the contract agency. The condition is due to an information asymmetry between managers and shareholders. As such, they are more concerned with the interests of managers.

Agency theory should predict that, if the agent has information advantage over the principal and they have different interests with the principal, there will be a principal-agent problem where the agent will perform actions that benefit themselves but harm the principal.

The burden related to expenses is derived from the management actions to agency costs (agency costs). In the context of the agency, it takes an independent third party, a mediator between the principal and the agent. Such third parties serve as agents to monitor the behavior of managers and ensure that the agent is acting in the interests of the principal. In this case, auditors are considered the party who is able to bridge the interests of the principals (shareholders) and agents (managers) to manage the company's finances.

In turn, auditors perform monitoring functions to supervise the work of managers through the financial statements made by managers as part of the manager form of accountability to shareholders. According to the agency theory, it is stated that the figures in the financial statements was instrumental in the formation of the contract and monitoring. The figures are often used to make accounting contracts, such as debt contracts, compensation plans, bonus plans, and others.

The above contracts often include certain restrictions that must be accompanied by the parties involved in the contract. For that reason, there is a demand to perform calculations and reporting those numbers. Auditor role here is to report the debt contract breach committed by certain parties as a breach of contract by the debtor's debts (Watts and Zimmerman 1986). The auditor in this regard is expected to give an independent view on the reasonableness of the figures presented by management. They should perform their function properly so that they can show their high competence and independence.

### **Rating, Bond Risk, and Audit Quality**

It has been noted that bond is one of the sources 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 (the issuer) with a specific repayment period (over one year), accompanied by a written promise, in the period or interval of time and its interest is paid in a coupon to the bondholders. In the maturity, principal money will also be paid to the bond holders concerned. Thus, bonds are a subset of the securities.

Another one is effect that is a security, which may include debt instruments, commercial paper, stocks, bonds, evidence of debt, units of collective investment contracts, futures contracts on securities, and any derivatives of securities (Chapter 1, Article 1, Number 5 in Presiden Republik Indonesia 1995). Before an issuer issues a bond, they must first do the test on the bonds by Securities and Exchange Commission and the rank test (rating) of bonds by the relevant institutions. Usually the whole publishing process takes about 3-6 months before the bonds can be issued and otherwise can be bought by investors (Indonesia Bond Pricing Agency 2010). Investor to invest in bonds will be faced with the risk of the following: 1) default risk, the risk of unpaid interest and nominal bonds, 2) liquidity risk, i.e. the risk of difficult to sell the bonds

back. 3) Interest rate risk, the risk of price falls due to rising interest rates.

Bonds are usually ranked by the rating agencies regularly. The agency helps investors in providing information regarding the economic viability of investment and financial issuer of the bonds. Bonds are rated agencies that provide an overview of credibility (credit worthiness) 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 (default risk). The higher the bond rating, then it shows a high bond issuers ability to pay its debts (IBPA 2010).

In Indonesia, there are some studies related to the factors that affect bond ratings such as by Andry (2005), Almilia and Devi, (2007), Manurung et al. (2009) and Yuliana et al. (2011). For example, Andry (2005) investigates the factors of accounting and non-accounting, the growth, size, sinking fund, maturity, security and reputation of the auditor, found that the age of the bonds (maturity) and the auditor's reputation has influence in predicting bond ratings.

Manurung et al. (2009), uses financial ratios as Current Ratio (CR), Total Asset Turnover (TAT), Net Profit Margin (NPM), Return on Equity (ROE), Return on Assets (ROA), Debt to Equity Ratio (DER) and Beta (systematic risk) and the samples used were 108 companies rated by PEFINDO 2007. They found empirical evidence that the fundamental variables affect bond ratings. These variables are Current Ratio (CR), Total Asset Turnover (TAT), and Return on Assets (ROA).

Another proponent is Yuliana et al. (2011) investigating the factors such as accounting: firm size, leverage, profitability, activity, market value ratio, and non-accounting: factors such as age bond, guarantee (secure), as well as the reputation of the auditor, found that the size, profitability, secure and reputable auditor affect bond ratings on the company's financial predictions.

Bond ratings by agencies are compiled

using the latest information they can get about the company and their future prospects and the required interest payment schedule. There is an important component used by the agency in making the decision. It is the company's financial statement which has been audited (Standard & Poor's, S & P Rating Group 2003). The theory and accounting literature suggest that factors related to the quality of the audit will affect the perception of market participants over financial reporting information (De Angelo 1981; Balvers et al. 1988; Beatty 1989; Menon and Williams 1991; Teoh and Wong 1993; Michaely and Shaw 1995; Muzatko et al. 2004). In addition, the level of audit quality or confidence shown by the auditor is directly influenced by the perceived level of independence shown by the auditor (De Angelo 1981, Johnstone et al. 2001).

Allen (1994), for example, tested the agency's perception of the benefits of accounting information, which is done by testing the relationship between accounting information and bond rating. He argues that the financial information users perceive that Big 8 auditors provide better quality audits for companies and local government.. The empirical analysis supports their hypothesis that the Big 8 audit accounting information is related to the ability to predict accurately the decision of the local government bond ratings. The results of the analysis indicate that there was the weak bond issuers, yet they were backed up by a large public accountant offices or KAP (Big 8) that get a higher rating.

Bond rating agencies, as information intermediaries, provide an independent assessment of the credit quality of the company. They should include information on the characteristics of the quality of the content of the auditor, because the agency can have access to insider information and knowledge about the characteristics of quality auditors. Therefore, when the information content of auditor quality characteristics cover bond ratings, the size, auditor industry specialization tenor, and auditors,

it will significantly influence bond ratings.

From the description above, the first hypothesis to be tested in this study is:

H1: Auditor size positively effects on bond rating

The increase of tenor auditors expresses the fact of having positive or negative impact on audit quality, especially the effect on the perception of independence. The arguments supporting this opinion states that the increased tenor auditor negatively effects auditor independence. This in turn will result in a decline, and will reduce the quality and increase the risk of corporate audit. This evidence is consistent with a lower bond rating. Instead, to support that increased tenor auditor independence was not significantly reduced, it leads to higher audit quality because they have a better understanding about the condition of the company. Thus, they reduce the risk of actual or perception companies (De Crabtree et al. 2006).

De Crabtree et al. (2006) specifically tested the effect on the perception of auditor on the tenor auditors' independency by bond rating agencies. The sample used is the latest bonds (newly) issued during the year 1992-2002. They found that tenor auditors are positively related to bond rating they received. This evidence is still consistent for all samples cover investment grade, corporate performance, and time periods. They found no evidence that the longer the auditor-client relationship tend to increase the perception of audit quality.

In connection with the above evidence, De Crabtree et al. (2006) stated that the bond rating reflects the rating agency perceptions of the examination of financial statements by auditors. Their findings supported this issue. The higher the perceived quality of financial reporting, *ceteris paribus*, the more they lead to the higher bond rating companies. Zeibert and Reiter (1992) as quoted by De Crabtree et al. (2006) stated that the rating that has been assigned to the debt is a significant determinant of the yield of the principal to be paid by the

**Table 1**  
**Sample Characteristics**

Total of companies' bonds listed in Indonesia Stock Exchange (ISE) 2000-2010	555 series
Total of the companies with complete data	383 series
Total of the sample observed from 2000 to 2010	<b>1283</b>
Total of observed sample using big auditors (Big-4)	834
Total of observed sample using medium auditors	288
Total of sample using small auditors	161
	<b>1283</b>
Total of the observed sample using industry specialist auditors	354
Total of the observed sample not using industry specialist auditors	929
	<b>1283</b>

company. The higher the rating indicates less risk of failure and this is also consistent with the effective interest rate reductions made by the company. From the description above, the second hypothesis is:

H2: Auditor tenor positively affects bond rating

The next is on industry specialist auditor. In this case, Lou and Vasvari (2009) had investigated the relationship between auditor specialization and the cost of public debt. They claim that knowledge specific to the industry, possessed by specialists tend to increase the accuracy and quality of audited financial statements. The researcher expect that lenders less protect the price when auditors significantly contribute to reducing information asymmetries associated with the borrower's financial position.

By using a large sample of the 10,276 from the issuance of bonds in the U.S. between the years 1995 to 2001 and measure the industry specialist auditors, with a 10% market share of top clients, it was found evidence that the rating agencies and bond investors assess the benefits of the industry specialist auditors. Specifically, the researchers found that the bond company uses industry specialist auditors (IAS) to obtain better ratings that indicate credit quality assessment by rating agencies than corporate bonds that do not use the industry specialist auditors (ISA). Based on this argument, the third hypothesis is:

H3: industry specialist auditors positively affect bond rating.

## RESEARCH METHOD

### Data and Sample

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

The data related to bond rating and corporate bonds were obtained from PT Perneringkat Securities Indonesia (PEFINDO = company whose job is rating the securities), PT Indonesian Central Securities Depository (KSEI) and Indonesia Bond Pricing Agency (IBPA). The population consists of all the companies that issued the bonds, in the research period of 2000-2010. Sampling is purposive sampling method, as based on the criteria such as they should have: a) information on the selection of auditors (auditor choice) from the years 2000-2010, b) audited financial statements in a row between the years of 2000-2010, c) data available for a complete bond of the years 2000-2010, including the settlement date, maturity date, face value, and the rating.

### Description of the Sample

The sample was selected through observation with 1283 observations as shown in Table 1.

### Research Variables

It consists of dependent variable, including credit rating (bond ratings), the independent variables such as the size, tenor and industry specialist auditors; controlled variables control, based on the variables in previous which studies (Mansi et al. 2004 and Lou and Vasvari 2009) which are known to affect bond ratings include: (1) the company's risk factors: firm size, leverage, profitability, coverage, age of firm, (2) factors securities risk factors: age bonds (maturity), bond size, duration, and bank debt.

### Operational Definition and Variable Measurement

The operation and variable measurement are such as Quality Auditor consisting of (1) the competence of the auditor, the auditor's ability to detect material errors or misstatements in the client's financial statements, and (2) the independence of the auditor, the auditor tendency to correct material errors (De Angelo 1981).

### The Auditor Size

De Angelo (1981) stated that the quality of audit independence is defined as high as possible factors the auditor can find and report violations of the client's accounting system. In this case, discovery violation is a measure of the quality of audits related to knowledge, experience, and ability to auditors. Therefore, the quality of the audit can be proxied by auditor size.

This study uses Big 4 auditors for auditor large proxy and Non-Big 4 auditors for proxy small. Auditor size is measured by binary variables, 1 is for companies that use large auditor (Big 4) and 0 for firms that use smaller auditors (Non-Big 4). The auditor tenor is the length of time related to the relationship between the auditor and the client. Auditor tenor is measured by the length of time since the auditor who first got the assignment for a particular client. For the public accountant offices (PAOs) with foreign companies in case of change of local partners, while its affiliates have not changed,

they are considered to have fixed tenor. The auditor is the industry specialist auditor with knowledge and skills related to the financial statements on a particular industry and can provide a better audit quality.

According to Lou and Vasvari (2009) industry specialist auditors are the auditors or PAOs with the highest market share in an industry. Auditor market share in an industry is the number of clients divided by the total sales volume of sales in an industry, which can be formulated as follows (Lou and Vasvari 2009; Mayhew and Wilkins 2003).

$$MarketShare_{jk} = \frac{\sum_i^I Sales_{ijk}}{\sum_k^K \sum_i^I Sales_{ijk}} \quad (1)$$

Note:

- i = index of client company
- k = index of auditors
- j = index of industry.

The above measurement is said to have an aggregate level due to the importance of the clients. This then represents whether the skills of auditors are admitted in an industry (Lou and Vasvari 2009; Mayhew and Wilkins 2003). From the above size, it is referred to as industry specialist auditors (ISA) when the client has a market share of 15% of the highest in the industry. Furthermore, the industry specialist auditors were measured by a dummy variable, 1 if the company uses industry specialist auditor and 0 otherwise.

### The Role of Information

This variable refers to the main purpose of the audit which is to reduce the information asymmetry between stakeholders and company management. Wallace (1987) states that the audit process will add value of the accounting information, thereby improving the quality of financial information. The higher the quality (credibility) audits, the financial reports will improve reliability and reduce investor risk (Brown et al. 2008).

### Bond Ratings

Bond rating is the main indicator of the risk,



which is published by agencies. The rating provides an indication of the possibility of regaining investor investment's sake, but with no specific predictions on the probability of default. The higher the rank of a bond, the more likely the bond in the future fails to meet their obligations. For Indonesia domestic agencies, they have been granted permission from Bapepam-LK that is PEFINDO, Fitch Indonesia, and Moody's Indonesia.

The researchers use data of bond ratings from PEFINDO, with measurements as follows: :  $idAAA$ : 20,  $idAAA-$ : 19;  $idAA+$ : 18;  $idAA$ :17;  $idAA-$ :16;  $idA+$ :15;  $idA$ : 14;  $idA-$ :13;  $idBBB+$ :12;  $idBBB$ : 11;  $idBBB-$ : 10;  $idBB+$ : 9;  $idBB$ : 8;  $idBB-$ :7;  $idB+$ :6;  $idB$ :5;  $idB-$ :4;  $idCCC+$ : 3;  $idCCC$ : 2;  $idD$ : 1.

### Hypothesis Testing

The testing of hypotheses 1, 2, and 3 was conducted by means of the regression on auditor size, tenor, industry specialist auditors, and other controlled variables on the credit rating. The steps of the analysis and the model which is drawn in the research built Mansi et al. (2004) by adding the industry specialist auditors (ISA) as independent variables and the controlled variable of maturity (tenor) and the bond size as follows:

$$CreditRating = \alpha_0 + \alpha_1 AS + \alpha_2 T + \alpha_3 ISA + \beta_1 \dots n FCR + \gamma_1 \dots n FSR. \quad (2)$$

Note:

$AS$  : Auditor Size

$T$  : Tenor

$ISA$  : Industry Specialist Auditor

$FCR$  : Factors of company risk

$FSR$  : Factors of security risk.

The controlled variables 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, age of the company. These risk factors are maturity securities (tenor), the bond size, duration' and bank debt.

Credit rating institutions, as information intermediaries, provide an independent assessment of the credit quality of the company. Credit rating should include informa-

tion on the characteristics of the content of the auditor in the bond rating, because rating agencies have access to insider information and knowledge about the characteristics of quality auditors.

Therefore, when the information content of auditor quality characteristics covered bond ratings, the size of the auditor, auditor tenor, and industry specialist auditor can have a significant effect on bond ratings. This could mean that the bond rating captures the role of information auditor characteristics.

## DATA ANALYSIS AND DISCUSSION

### Descriptive Statistics of Research Variables

As presented in Table 2, the average value of bond ratings is 14.321, indicating that the average bond rating is at A and A-. This means that the average rating of the bonds at the time of emission shows well worth for the investment. In addition, the average size of the auditor is 0.667 meaning that more companies are using big auditors (Big-4) compared to those using small auditors (non Big-4). Average auditor tenor is 2.922, which means that the auditor engagements with clients between 2-3 years. On the contrary, the average company using industry specialist auditor is 0.436. This indicates that companies using industry specialist auditors are less than those which do not use the industry specialist auditor.

### Results of the Hypothesis Testing

The results can be seen in Table 3, in which it provides the analysis as based on Mansi et al. (2004) as shown in the formula 2. Table 3 shows that the coefficient on auditor size is positive that is 0557 (t-statistic 2.824) and it is significant at  $\alpha$  1%, which means that the higher the size of the auditor, the higher bond ratings. Therefore, hypothesis one (H1) which states that there is positive effect auditor size on bond rating is proved. It can be interpreted that bond rating captures the role of the information contained in the auditor size.

**Table 2**  
**Descriptive Statistics of Research Variables**

Variables*	Mean
Credit Rating	14.321
Auditor Size	0.667
Tenure	2.922
IAS	0.436
Firm Size	29.444
Leverage	0.689
Profit	0.069
Coverage	1.453
Firm Age	3.117
Tenor	2.982
Bond Size	26.083
Duration	0.084
Bank Debt	0.777

CredRating = Bond rating, measured by:  $idAAA=20$ ;  $idD=1$ .  
AuditorSize = Auditor size, measured by 1= big (Big-4) 0= small (Non Big-4)  
Tenure = Auditor tenor, measured by the length of auditor assignment on an entity.  
IAS = Industry specialist auditor, measured by 1= auditor with industry specialist 0 = auditor with no industry specialist  
FirmSize = Company age, measured by natural logarithm of total asset  
Leverage = Ratio of company leverage  
Profit = Ratio of company probability  
Coverage = Ratio of company coverage  
Firm Age = Company age, measured by natural logarithm since the company established  
Tenor = duration, measured by *modified duration*.  
Bond Size = Bond size, measured by natural logarithm natural of bond nominal value.  
Bank Debt = Bank debt measured by 1= company with bank debt 0 = company with no bank debt

The above evidence is consistent with Allen (1984) who argues that a weak bond issuers but backed by the Firm will receive a higher rating. This argument is also consistent with Mansi et al. (2004) which states that companies that use small auditors (Non-Big 6) will reduce the score rating of one level (e.g. small companies with auditor obtain BBB rating, while the same company, with a large auditor ( Big 6) will get a rating BBB +). This is especially contradictory with the statements by Simunic (2003) that the size of audit quality is by just basing on the size of the Firm should be investigated again.

The direction of tenor variable coefficient is positive that is 0.023 (t-statistic 0.591) but not significant, which means that the hypothesis two (H2) stating that the auditor tenor has a positive effect on bond rating is not supported. This evidence does not support government regulations on audi-

tor rotation duty.

The regulations on Firm rotation and AP obligations in Indonesia is based on the Decree of the Minister of Finance of the Republic of Indonesia (KMK-RI) No. 423/KMK.06/2002 on Public Accountant Services, Article 6 paragraph 4, which reads: "Provision of services of general audit of the financial statements of an entity can be by public accountant offices (KAP) which is at the longest up to 5 years continuously fiscal years and by a public accountant (AP) at the latest for 3 years continuously fiscal years."

The next is that the provision for rotation of KAP and the last AP, Finance Minister Regulation (PMK), the PMK No: 17/PMK.01/2008, chapter 3, for KAP is 6 years and 3 years for the public accountant (AP). The increase of auditor has a positive or negative impact on audit quality, especially the effect on the perception of independence. It supports the claim that the

**Table 3**  
**Results of Hypothesis Testing**

Independent and Controlled Variables	Coefficient	t-statistic
Constant	0.001	-0.008
Auditor Size	0.557***	2.824
Tenor	0.023	0.591
ISA	0.544***	2.759
Firm Size	0.455***	6.566
Leverage	-0.185	-1.248
Profit	3.088***	5.132
Coverage	0.088**	2.500
Firm Age	-0.489**	-2.278
Tenor	-0.120***	-4.225
Bond Size	0.304***	3.398
Duration	-0.188	-0.423
Bank Debt	-0.338**	-1.998
N	1283	
R <sup>2</sup>	12.10%	

\*\*\* = significant at  $\alpha$  1%; \*\* = significant at  $\alpha$  5%; \* = significant at  $\alpha$  10%

- CredRating = Bond rating, measured by:  $idAAA=20$ ;  $idD=1$ .
- AuditorSize = Auditor size, measured by 1= big (Big-4) 0= small (Non Big-4)
- Tenure = Auditor tenor, measured by the length of auditor assignment on an entity.
- IAS = Industry specialist auditor, measured by 1= auditor with industry specialist 0 = auditor with no industry specialist
- FirmSize = Company age, measured by natural logarithm of total asset
- Leverage = Ratio of company leverage
- Profit = Ratio of company probability
- Coverage = Ratio of company coverage
- Firm Age = Company age, measured by natural logarithm since the company established
- Tenor = duration, measured by *modified duration*.
- Bond Size = Bond size, measured by natural logarithm natural of bond nominal value.
- Bank Debt = Bank debt measured by 1= company with bank debt 0 = company with no bank debt

negative effect of increased auditor tenor will result in auditor independence, and will reduce the quality. The increase of the risk of company auditors is consistent with a lower bond rating.

Instead, to support that increased auditor tenor, makes independence not significantly reduced, and leads to higher audit quality because they have a better understanding about the condition of the company, so as to reduce the risk of actual or perception of companies (De Crabtree et al. 2006). The above results support the positive impact on the quality of audit tenor, as practiced by Solomon et al. (1999), stating that the longer auditor tenor will reduce the information asymmetry between the auditor and the client. In that case, they can lead a better quality of audit.

Ebrahim (2001) states that the auditor tenor has a positive effect on the efficiency of the audit process and enhance the monitoring functions. This is assumed by the auditor. Geiger and Raghunandan (2002) found that the asymmetry of information between the auditor and client is high in the first year of assignment. Ghosh and Moon (2002), Johnson et al. (2002); Myers et al. (2003) found that if tenor auditor increases the earnings management through discretionary accruals and certain items decreased.

Carcello and Nagy (2004) argue that financial fraud occurs when the auditor tenor is less or 3 years. Carey and Simnett (2006) found consistent evidence that audit quality associated with long tenor audit partner. De Crabtree et al. (2006) specifically investigate the effect of the perception of auditor tenor

on auditor independence by bond rating agencies. They found that auditor tenor is positively related to bond rating they received, and the finding is consistent for all samples that are investment grade, corporate performance, and time periods. They found no evidence that the longer the auditor-client relationship will decrease the perception of audit quality.

Variables of industry specialist auditor (ISA) is measured using a market share of 15% showing a positive coefficient of 0.544 with t-count  $\alpha$  2.759 and significant at 1%. Thus, the third hypothesis (H3) stating that industry specialist auditor has positive effect on bond rating is supported. These results can be interpreted that the bond ratings capture the role of the information contained in industry specialist auditor.

The results of testing three hypotheses specifically are consistent with Lou and Vasvari (2009) who also investigated the relationship between specialization of auditor and the cost of public debt. It was found that companies using industry specialist auditors (ISA) receive better ratings and pay a lower yield when publishing bond securities.

The implication of such evidence can be drawn from the results that rating agencies assess the benefits of industry specialist auditors. Hypothesis 3 also supports the research in general by Solomon et al. (1999) and Hogan and Jeter (1999). It is argued that those auditors who specialize in a particular industry are generally associated with higher audit quality (auditor expertise supporting hypothesis). Dunn and Mayhew (2004) found that industry specialization associated with better corporate disclosure, as measured by the evaluation of the quality of disclosure by analysts.

Research by Palmrose (1991), Simon and Francis (1988) documented evidence that the Big-6 auditor obtaining premium brand name in the audit fee to provide higher audit quality, while Craswell et al. (1995) stated that the industry specific premium is above the general brand name premium on

audit fees which is generated by the industrial specialization of the Firm. Carcello and Nagy (2009) investigated relationship between industry specialist auditors and financial reporting fraudulent, providing strong support for a negative relationship between industry specialist auditors and financial reporting fraudulent by the client.

In general, this study provides empirical evidence that companies using auditors who have industry specialization will gain better bond ratings. This is due to the fact that the auditors who have been specialized in industries will have a better understanding about the condition of the auditee in a particular industry. Understanding the benefit of auditors in performing the audit, especially for detecting fraud in the financial statements may be made auditee.

### Results of Controlled Variables

The controlled variables are the characteristics of auditor (Auditor Size, Tenor, ISA). All these are measured using the company size, leverage, profitability, coverage, company age. The company's risk factors are maturity (tenor or time to maturity), bond size, duration, bank debt, and the security risk factors.

The coefficient on the variable of company size indicates a positive direction 0.455 with a t-statistic 6.566 and thus, it is highly significant. This result is consistent with the prediction that the larger size of the company will further improve bond ratings. The coefficient on the variable of leverage indicating a negative leverage that is -0.185 with t-statistics -1.248. The higher the leverage ratio is, the lower the bond rating of the companies.

The coefficient on the profitability indicates a positive direction 3.088 with a t-statistic 5.132 and thus it is highly significant. The higher the company's ability to generate profit is, the higher the bond rating.

The coefficient of coverage also indicates a positive direction 0.088 with a t-statistic 2,500 and this is also significant at  $\alpha$  5%, which means that the larger the company coverage is the bigger the bond rating.

The variable of company tenor or company age is  $-0.489$  indicating a negative direction with  $t$ -statistic  $-2.278$  and it is significant at  $\alpha$  5%, thus the company's age is a crucial factor that must be taken into account for bond rating improvement. The longer the life of the company is, the bigger the bond rating. The variable of maturity (tenor) shows a negative direction  $\alpha$   $-0.116$  and significant at 1%. Thus, the maturity of the bonds is a factor which must be taken into account in formulating corporate bond ratings. The longer the maturity of the bonds is, the lower the ranking.

Now is the bond size bond in which it shows a positive direction  $0.304$  ( $t$ -statistic  $3.398$ ) and significant at  $\alpha$  1%, which means that the greater the size of the bond is the greater the bond ratings. The coefficient of the duration shows a negative direction  $-0.188$  with the  $t$ -statistic  $-0.423$  and this is not significant. It can be stated that the greater the duration of the bond is, the lower the rating. This is due to the fact that the greater duration of the bond also shows greater volatility of bond price. As such, it causes the greater risk. However, the variable of the length is not a factor that needs to be taken into account in determining bond ratings. Last but not least, it is the security risk, which is also consistent with the predictions for the variable of bank debt, which shows a negative and highly significant at  $-0.347$ . The higher the firm's debt is, the lower the bond ratings.

### **CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS**

Some generalizations can be drawn as the following. It is obvious that auditors should play an important role in the capital market, because they can provide an independent verification of the financial statements provided by the manager. In such a condition, the quality of auditors contributed to the credibility of financial statement disclosures. Through its role as a provider of the information which is expected to have characteristics of quality the auditors, they can benefit

from the capital market.

It also provides evidence that the characteristics of the size and quality of industry specialist auditor have a positive effect on bond ratings. This reflects that the bond ratings capture the role of the information contained in the auditor quality characteristics, auditor size, and industry specialist auditors. In addition, the size of the auditor and the industry specialist auditor are the factors that must be taken into account by the rating agencies in setting bond ratings.

The rating agencies assess that bond issuers by using big auditors and specialists in certain industries, which show audit assurance to improve audit quality to become a high rank. In general, this study provides empirical evidence that the quality characteristics of the auditor, the auditor size, and industry specialist auditor are the important factors for the stock market in Indonesia, especially the rating agencies.

The auditor tenor is having coefficient is directly to support the positive influence on the independence, meaning that in the long, tenor has no impact on the independence, and lead to higher audit quality because they have a better understanding about the condition of the company, so as to reduce the risk of actual or company perception. Due to this, the result was not significant, which cannot be related to government regulations and public accountant offices (KAP AP) rotation, the Finance Minister Regulation (PMK), the PMK No; 17/PMK.01/2008, chapter 3, for KAP is 6 years and 3 years for the AP.

Some limitations may also affect the interpretation of the results, namely: 1) it does not separate the non-financial industries and the financial and banking industry that have different regulations. 2) it does not consider the size of a medium auditor, so the auditor grouping into large and small, perhaps too confounding with medium auditor. 3) This study measures the industry specialist auditors approach to market share.

The next research should address such limitations above such as by separating the

financial and non-financial industries, classifying auditor size into large, medium, and small and measure industry specialist auditors and a portfolio approach (portfolio approach) to make it more relevant.

This study provides policy implications, especially for the Indonesian Institute of Accountants, which is the basis for evaluating the rotation policy input for public accountant offices (KAP and AP), with a glance at their effectiveness, because the results of this study indicate that the rating agencies did not review the auditor tenor as a basis for the preparation of bond ratings. The practical implication of the research for the company issuing the bond is by using the auditor and the industry specialist auditor to increase bond ratings.

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