The Effects of Pension Plans on Audit Pricing: Evidence from Indonesia

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The purpose of this study is to investigate the effect of pension plans on audit fees. The research population is 487 observations from 263 companies listed in the Indonesian Stock Exchange from the period of 2014 to 2016. Multiple regression analysis is used to analyse this study. The first results analysis showed that companies using both pension plans have a higher audit fee and the second analysis showed the pension deficit effect on audit fees in companies using defined benefit, while if companies are using both pension plans, the pension deficit didn't affect the audit fee. This research concludes that the auditor in Indonesia is likely to see more risk in companies using both pension plans, rather than companies using defined benefit only and the pension deficit matters to the auditor when companies use defined benefit only.

Key words: *Pension plan, audit fee, pension deficit, defined benefit, defined contribution.*

Introduction

Kieso (2011) described the pension plan as divided by two, defined benefit and defined contribution. McLeod et al. (1993) stated that defined benefit risk is borne by the firm as they have agreed to cover the underfunded pension plan, while in defined contribution the risk is borne by the employee, as they are the one that is responsible for investing the pension fund in the investment plan that they have chosen . It is also important for auditors to focus more on the pension plans with a lot of manipulation and estimation in the funding process. Chen et al. (2017) has conducted research in the USA and found that defined benefit pension plans are charged higher by the auditor.

In some countries, employees can choose between the two types of pension plan. Such as in USA, where companies can choose the pension plan that is best fitted to them, and according to the survey of consumer finance from the US department of labour, private companies are more likely to choose a defined contribution scheme, especially the 401(k) rather than a defined benefit plan. While in the public sector, according to Brown and Weisbenner (2013), there has been a dramatic shift of employees or companies in the USA choosing a defined contribution rather than choosing a defined benefit scheme in recent decades, but this phenomenon is different in Indonesia. The Indonesian government regulated the pension plan through law no 11 year 1992, where it stated that Indonesia recognises two pension plans, defined benefit and defined contribution, but law number 13 year 2003 article 167 implicitly stated that every country needs to follow a defined benefit pension plan and the estimation of the pension benefit are regulated by the same law. This condition ensures that companies in Indonesia have a mandatory defined benefit plan and cannot choose between defined benefit and defined contribution. When a company decides to offer a defined contribution, it is considered a voluntary decision, and some companies might not have defined contribution, but not all of their employees are under the scheme. This unique phenomenon is what we want to investigate and discuss; whether the coercing regulation in choosing pension plans can be affecting the likeliness of different auditor judgement to the audit risk.

The regulation in Indonesia that is forcing defined benefit as a mandatory, might lead to some circumstances and might suggest a different audit judgement criteria and risk than other nations, that allow companies to choose between defined benefit and defined contribution. Due to the regulations in Indonesia, companies have a choice of two types of pension plans, first is the defined benefit only and the second one has both pension plans. This two plan version presents its own audit risk that might lead to higher audit fees, but in the same regulation it also said that companies can only participate in defined benefit, and the exceeded amount will be given to the employee, but when it is not exceeded the company needs to pay for the difference, while in the defined contribution it is pure the employee contribution. This makes the company that has both pension plans riskier to auditors, as it bears the two pension risk and is not complementary, which is why we predict that companies having two pension plans will therefore have a higher audit fee. We also predict that the pension deficit will be significant in companies using defined benefit when the two pension plans are separated, as pension deficits are commonly known in defined benefit, and the bigger the pension deficit a company has, the bigger the audit fee charge by the auditor, as it leads to a riskier audit.

In this study, we use 487 samples from 164 companies listed in the IDX (Indonesia Stock Exchange) from 2014-2016 and we use the multiple linear regression to test whether the choice of pension plan in a company can affect the auditor judgement and audit risk that might lead to the increasing audit fee price.

Using the multiple linear regression, we found that the choice of pension plan is a matter in stating the audit fee. Companies using both pension plans tend to get charged higher than those using defined benefit only. The pension deficit in this study states that increasing in pension deficit will lead to a higher audit fee charged by the auditor, as there is a tendency towards failure to pay the pension and the need to bear the risk of the loss in investment. To further see the impact of pension plans on audit fees in companies, we divide the sample into each type of the pension plan; the first one is the company with defined benefit only and the second one is the company using both pension plans. From the test, it can be seen that the pension deficit is significantly affecting the audit fee in defined benefit only, but not in the companies that uses both pension plans.

This study provides further literature and evidence about the effect on audit pricing when a nation makes defined benefit pension plans the mandatory choice to all employees in the company within the nation, while the defined contribution pension plan is considered as a voluntary choice. This study can give evidence to the regulator that the coercion in choosing pension plans can make an impact on the company audit pricing and also on the company to carefully select the type of pension plan. Especially the one that is related to the risk of an auditor and their judgement.

This paper structure is as follows: In Section 2 we discuss the previous research and the hypothesis development. In Section 3 we describe the data and sample measurement. In section 4 we discuss empirical models and the main result. In section 5 we conclude and summarise the paper.

Literature Review

Simunic (1980) stated that audit pricing theory is a concept on how auditor judgement based on the client risk decides the audit fee. In audit pricing theory, Simunic (1980), explained that the audit fee estimation comes from two elements. First is cost on the allocated resource in the audit, and second is the cost estimate in the future, for example, potential loss that is caused by litigation and/or reputational damage. Pratt and Stice (1994) stated that professional judgment plays an important role for remuneration in audit fee, for example, in estimating the potential loss and in choosing the audit resource until the audit fee is decided in the final stage. And IAPI (2016), explained that the audit fee is a service payment from client to the public accountant for the audit service that carried out by the public accountant . Taylor and Simony (1999) stated that there are several important factors in determining the audit fee, which are higher levels of disclosure, the intense litigation process and the extensive regulation from the government. Nikkinen and Sahlstrom (2005), describe that audit fees have a positive significance with risk dimension; the factors are financial leverage,

operating leverage and business risk. It also said that the three dimensions of risk, audit complexity, size and agency theory are related to audit fees.

DeFond and Zhang (2014), explained that the auditor is responsible for assuring financial statements already faithfully reflect the company economics, which can indicate earning management increases the audit risk. Ball (2009), stated that auditors are responsibility for assuring the financial reporting quality, and even if some statement complies with the GAAP, if there is some misleading statement in financial statements, the US Supreme Court ruled that auditors are held legally liable. With this high audit risk, auditors need to carry out more precise auditing procedures in order to detect earning management, and will charge a higher fee for more auditing efforts added to their services.

With regard to pension plans divided into two, defined contribution and defined benefit, Kieso (2011), stated that defined benefit pension accounting is more complex than defined contribution pension accounting, as defined benefit plan uses judgment to estimate the pension set and involves a substantial degree of managerial discretion. While, Stone (1991), explained that companies that are switching from defined benefit to defined contribution are companies with a smaller size, that are less profitable, less solvent and more highly levered. In which, Chen et al. (2017) stated that companies using defined benefit pension plans have a higher audit risk than companies using defined contribution pension plans. This is because in the US, every company can choose to select to have a pension plan or not, and with regard to pension plan type, they can choose to have defined benefit or defined contribution, but in Indonesia, law no 13 year 2003 in article 167 briefly states that every company needs to use a defined benefit pension plan scheme and the defined contribution pension plan is a voluntary choice, as is implicitly stated, while in the previous study it can be seen that a company having defined benefit and defined contribution will have a risk of compromise. In Indonesia, if a company chooses a defined contribution, it means they will have more risk, because in the eye of Indonesian law, a contribution made by a company only relates to the defined benefit and not to the defined contribution, and the defined contribution is purely the contribution made by the employee, while defined contribution should be made from the employee and employer contribution. This is due to the difference of the Indonesian law enforcement in pension plans and the mandatory defined benefit pension plan implemented in Indonesia. The company that has both pension plans will tend to have a higher audit fee, because the risk for the auditor will get higher as both pension plans will bring their own risk and not complement the risk.

H1a. Companies using Defined Benefit and Defined Contribution pension plans get charged higher audit fees than companies using only Defined Benefit pension plan.

Chen et al. (2017), stated that the pension plan deficit will lead auditors to charge higher fees when it has a greater deficit in a defined benefit pension plan. The pension deficit is derived from pension liabilities divided by total asset and it shows how much pension liabilities will take part in total assets. If the amount of pension deficit is higher, this leads to a higher risk for the company to pay the employee in their retirement. The pension deficit can only be found in defined benefit pension plans, as companies give estimations on the future pension payment, and employees are not eligible to make contributions to the pension. While in defined contribution, the employee fully funds their pension, and the amount they get is already fixed. The amount will be the same amount as theirs and company contribution. Which is why the pension deficit for defined benefit is a matter for auditor judgement regarding audit fees.

H1b. Pension deficit in Defined Benefit clients is one of the judgement criteria auditors use for charging audit fees, rather than for clients with Defined Benefit and Defined Contribution pension plan.

Research Design
Sample and Data Resources

This study uses data from ORBIS and IDX (Indonesia Stock Exchange) for the 2014-2016 period. Data that isn't found in ORBIS is collected manually from the company Annual Reports and Financial Statements in the IDX website. After collecting the data, we process eliminations in the sample by: First, removing companies that are financial institutions or SIC 6, as they have different regulations from the other industries. Second, the samples that have incomplete or missing data. After eliminating the samples with those criteria, the remaining sample is 487 for the 2014-2016 period.

Measurement of Audit Fee

We used the Simunic (1980) model for the audit fee measurement, in which we used the natural logarithm of the audit fee or the amount that the company gives to the public accountant firm.

Measurement of Pension Plan

Following Chen et al. (2017), we used a dummy variable for this variable, but with some adjustment due to Indonesian regulations, in which the company needs to have a mandatory defined benefit pension plan according to Law number 13 year 2003 article 167. While according to Kieso (2011), PSAK 18 and Law number 11 year 2002, states that the pension plan consists of two types, the first one is defined benefit and the second one is defined

contribution. The regulation in Indonesia recognises the defined benefit and defined contribution, and with the mandatory defined benefit plan it makes the defined contribution a voluntary choice. Due to this regulation in Indonesia, the company that has a defined benefit pension plan only will be equal to one and the company that uses both defined benefit and defined contribution pension plans will be equal to zero.

Measurement of the Pension Deficit

Following Chen et al. (2017), the measurement of pension deficit in each sample is obtained by using pension liabilities minus pension assets divided by total assets. As there is no disclosure on the pension assets, we use pension liabilities divided by total assets.

Results and Discussion

Table 1 represents the distribution based on the pension plan. From 487 samples, the sample that uses the defined benefit pension plan is 74,77% or 364 samples and the sample that is using both pension plans are 25,24% or 123 samples. Table 2, represents SIC that has the highest number as being from SIC 2 with 156 frequencies, and from Table 3 it is revealed that there are 139 samples using defined benefit pension plans only, and the remaining 87 are using both pension plans. Aside from the highest, Table 2 also represents the SIC that have the lowest number, which is from SIC 8, with 8 samples, and all of the samples are using the defined benefit pension plan only.

Table 1: Sample Distribution based on Pension Plan

Pension plan	Frequency	Percentage	Cumulative
Defined Benefit	364	74.74	74.74
Defined Benefit + Defined Contribution	123	25.24	100.00
Total	487	100.00	

Table 2: Sample Distribution based on SIC

SIC	Industry	Frequency	Percentage	Cumulative
0	Agriculture, Forestry, and Fishing	28	5,75	5,75
1	Mining and Construction	78	16,02	21,77
2	Manufacture (1)	156	32,03	53,80
3	Manufacture (2)	89	18,28	72,07
4	Transportation, Communication, Electric and Gas Service	72	14,78	86,86
5	Wholesale and Retail Trade	32	6,57	93,43
7	Service (1)	24	4,93	98,36
8	Service (2)	8	1,64	100,00

Total		487		

Table 3: Sample Distribution based on Pension Plan and Industry

SIC	Industry	Defined benefit	Defined benefit and defined contribution	Total
0	Agriculture, Forestry, and Fishing	18	10	28
1	Mining and Construction	60	18	78
2	Manufacture (1)	119	37	156
3	Manufacture (2)	69	20	89
4	Transportation, Communication, Electric and Gas Service	41	31	72
5	Wholesale and Retail Trade	27	5	32
7	Service (1)	22	2	24
8	Service (2)	8	0	8
Total		364	123	487

Table 4 represents the descriptive statistics. The audit fee has a mean of Rp 1.823.000.000 and it ranges from Rp 24.000.000 to Rp 40.000.000.000. The pension plan has 74,7% or companies that use defined benefit is 74,7% and the pension deficit has a mean of 0,024 or 2,4% and it ranges from -0,3% to 11,6%. The companies that appointed a big4 auditor is 4,41%, companies that have women engagement auditors is 16,4% and the unqualified opinion given from the auditor to the company is 99,6%. The market to book has a mean of 0,003 and it ranges from -0 to 0,039. The total asset of the sample is Rp 10.120.000.000.000, with the minimum Rp 107.600.000.000 and maximum Rp 92.420.000.000.000. The leverage and Rec. Inv. Ratio have a median and minimum equal to zero and the maximum is one. The ROA in this study has a mean of 389,4% and the minimum range is -1816% while maximum is 4170%. The age of the company has a mean of 14.189 years and minimum 1 year while the maximum is 37 years.

Table 4: Descriptive Statistics

Variable	Mean	Median	Minimum	Maximum
Audit fee	1.823.000.000	847.000.000	24.000.000	40.000.000.000
Pension plan	0,747	1,000	0,000	1,000
Pension deficit	0,024	0,015	-0,003	0,116
Big 4	0,441	0,000	0,000	1,000
Opinion	0,996	1,000	0,000	1,000
Mtb	0,003	0,001	-0,000	0,039
Firm size	10.120.000.000.000	3.540.000.000.000	107.600.000.000	92.420.000.000.000

Leverage	0,000	0,000	0,000	0,001
Roa	3,894	2,790	-18,160	41,70
Firm age	14.189	13,000	-1,000	37,000
Gender	0,164	0,000	0,000	1,000
Recinv	0,000	0,000	0,000	0,001

Table 5 represents the correlation between one variable with another. In this table, it can be seen that the pension plan is in significantly negative correlation with the audit fee (a correlation with coefficient = -0,452 and p value < 0,01). The table also represents the other variable that relates to the audit fee, such as pension deficits that have a significantly negative correlation (a correlation with coefficient = -0,157 and p value < 0,01), Receivable Inventory Ratios that also have a significantly negative correlation (in p value < 0,01). While the other variables, such as big 4, firm size, leverage and ROA have a positive correlation (in p value < 0,01).

Table 5: Pearson Correlation

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) *Audit fee*	1.000											
(2) *Pension plan*	-0.452***	1.000										
	(0.000)											
(3) *Pension deficit*	-0.157***	0.181***	1.000									
	(0.001)	(0.000)										
(4) *Big4*	0.531***	-0.378***	-0.069	1.000								
	(0.000)	(0.000)	(0.130)									
(5) *Opinion*	0.031	-0.037	0.025	0.057	1.000							
	(0.500)	(0.411)	(0.582)	(0.208)								
(6) *Mtb*	0.071	-0.099**	0.024	0.103**	0.034	1.000						
	(0.119)	(0.029)	(0.600)	(0.022)	(0.461)							
(7) *Firm size*	0.716***	-0.408***	-0.327***	0.372**	0.004	-0.018	1.000					
	(0.000)	(0.000)	(0.000)	(0.000)	(0.923)	(0.688)						
(8) *Leverage*	0.142***	-0.010	-0.199**	-0.079*	-0.116**	0.058	0.197**	1.000				
	(0.002)	(0.821)	(0.000)	(0.081)	(0.011)	(0.202)	(0.000)					
(9) *Roa*	0.150***	-0.178***	0.137**	0.230**	0.095**	0.471**	0.073	-0.264***	1.000			
	(0.001)	(0.000)	(0.003)	(0.000)	(0.037)	(0.000)	(0.108)	(0.000)				
(10) *Firm age*	0.074	-0.100**	0.220**	0.098**	-0.020	0.106**	-0.039	-0.031	0.154***	1.000		
	(0.105)	(0.027)	(0.000)	(0.030)	(0.656)	(0.020)	(0.395)	(0.490)	(0.001)			
(11) *Gender*	0.019	0.079*	-0.018	0.075	0.028	0.119**	0.022	0.001	0.1	-	1.00	

							*			24***	0.016	0	
	(0.670)	(0.081)	(0.696)	(0.100)	(0.531)	(0.009)	(0.628)	(0.981)	(0.006)	(0.730)			
(12) _Recinv_	-0.189***	0.110**	0.348***	-0.028	0.057	-0.019	-0.364***	-0.090*	0.175***	0.262***	0.037	1.000
	(0.000)	(0.015)	(0.000)	(0.544)	(0.211)	(0.680)	(0.000)	(0.048)	(0.000)	(0.000)	(0.417)	

_p_-values in parentheses
* _p_ < 0.1, ** _p_ < 0.05, *** _p_ < 0.01

From Table 6, it can be seen that several variables have a significant mean value and that only variable opinion and leverage are not in the significance value range. For the firm characteristics, it can be seen that companies using both pension plans tend to have a higher audit fee, tend to use big 4 auditors, have a higher market to book ratio, higher firm size, higher ROA, have an older IPO year, but tend to have a lower pension deficit than defined benefit companies.

Table 6: T-Test

Variable	**Defined Contribution and Defined Benefit**	**Defined Benefit**	**Coefficient**	**T-value**
	N=123	N=264		
Audit fee	21.481	20.232	1.248***	11.159
Pension deficit	0.016	0.026	-0.011***	-4.059
Big 4	0.764	0.332	0.432***	8.987
Opinion	1.000	0.995	0.005	0.823
Mtb	0.004	0.002	0.001**	2.196
Firm size	29.992	28.635	1.357***	9.830
Leverage	0.000	0.000	0.000	0.226
Roa	6.605	2.978	3.627***	3.976
Firm age	2.543	2.339	0.204**	2.222
Gender	0.114	0.181	-0.067*	-1.749
Recinv	0.000	0.000	-0.000**	-2.435

**Main Analysis**

In this section, we conduct a test on whether there is some effect in choosing pension plans with the audit fee level. The sample for this research is public listed companies from the Indonesian Stock Exchange in the years 2014, 2015 and 2016. There are two hypotheses models to be tested, the first is to know whether the pension plan decision can affect the audit fee. The second is to know about pension deficits affecting the audit fee in companies

using defined benefit and companies using both pension plans but with the regulations in Indonesia, it is mandatory for companies to choose the defined benefit plan.

The Relation between Pension Plan to Audit Fee

In this first regression, we use the model:

$AUDITFEE_{i,t} = \beta_0 + \beta_1 PENSIONPLAN_{i,t} + \beta_2 PENSIONDEFICIT_{i,t} + \beta_3 BIG_{i,t} + \beta_4 OPINION_{i,t} + \beta_5 MTB_{i,t} + \beta_6 FIRMSIZE_{i,t} + \beta_7 LEVERAGE_{i,t} + \beta_8 ROA_{i,t} + \beta_9 FIRMAGE_{i,t} + \beta_{10} GENDER_{i,t} + \beta_{11} RECINV_{i,t} + \beta_{12} YEAR_{i,t} + \beta_{13} INDUSTRY_{i,t} + \varepsilon$ ……………..….. (1)

The dependent variable for this model is the natural logarithm of the audit fee and the independent variable for this is the pension plan, which is using the dummy variable that is equal to one for companies using the defined benefit only and zero for companies using both pension plans. There's also pension deficit that is from pension liabilities divided by total assets, while the other variable is defined in the Appendix.

Table 7 it represents that companies having both pension plans have a higher audit fee than companies using defined benefit only, as is described by the negative significance (-0,299 in p value <0,001) to the audit fee. The results also show that higher pension deficit will lead to higher audit fees charged by the auditor, as it has a positive significance (3,281 in p value <0,001) but the fee charged will not be as much as when companies choose to have both pension plans. While there i are other variables such as BIG4, firm size and leverage, that have a positive significance to audit fee. This is in accordance with Bell et al. (2001) and Caneghem (2012) that describe the companies using big 4 auditors tend to pay higher fees. The bigger their firm size and leverage ratio, the higher the audit fee charged by the auditor. The result of this test is in accordance with the first hypothesis, where the companies that have both pension plans tend to have a higher audit fee.

Agoes (2012) describes audit fee as a payment that is dependable on the risk, complexity and level of expertise in order to do the service, and other than that there is also the cost structure and the professional judgement on the object. In this result, the auditor charged more to the company that used both pension plans. This is because the riskiness of recording the two pension plans using separate accounting for the pension plan, may result in errors when inputting the data, miscalculations or misstatements in entering the company and employee contribution. With using two pension plans, there might be some inherent risk and control risk that might arise, such as human error resulting from complex transactions. There might also be some detection risk for having two pension plans, such as the sampling that might not be representative of both pension plans, or the auditor cannot evaluate it properly because of lack of evidence. Which then makes the auditor need to use more of their resources in

knowledge and competence to audit the pension plan. This is in accordance to Stanley (2011), that describes the audit fee as derived from business risk that the company faces and Gray et al. (2015), stated that another audit risk is that there may be some material mis-stated in the client financial statement, leading the auditor to seek an inappropriate audit opinion.

Other than that, the Indonesian regulation is putting force on companies to have a mandatory defined benefit pension plan, as stated in Law number 13 year 2003 article 167. In those law statements, it is also explained that the defined contribution is a voluntary choice, and the one that bears the risk in pensions. Under the law, it is stated that when companies are putting their money in pensions, whether in a defined contribution or defined benefit, all of it will only be recorded at the defined benefit and if there is an exceeding amount of money, all of the money will be given to the employee, while if the amount is not up to the required amount, the company need to pay for the difference. The defined contribution is the amount that the employee is saving by themselves and they will get the same amount they have been saving. With this scheme, it is riskier for companies that have both pension plans, is because plans are not complimentary, and each of the plans bears its own risk, which leads to greater risk and potential for scrutiny in the auditor's eye, especially with the pension funds that have a lot of estimation and manipulation.

Table 7: Multiple Linear Regression in Pension Plan to Audit Fee

Variable	(1) Auditfee	(2) Auditfee	(3) Auditfee
Pension plan	-0.299***	-0.277***	
	(-3.36)	(-3.10)	
Pension deficit	3.281**		2.710**
	(2.54)		(2.10)
Big4	0.683***	0.684***	0.743***
	(9.10)	(9.13)	(9.71)
Opinion	0.280	0.288	0.340
	(0.54)	(0.52)	(0.66)
Mtb	7.701	7.257	8.919
	(1.21)	(1.06)	(1.32)
Firm size	0.482***	0.473***	0.508***
	(15.58)	(15.04)	(17.28)
Leverage	375.854**	338.798**	350.480**
	(2.27)	(2.01)	(2.11)
Roa	0.001	0.002	0.003
	(0.25)	(0.44)	(0.53)
Firm age	0.049	0.059	0.063

	(1.09)	(1.32)	(1.43)
Gender	-0.047	-0.052	-0.087
	(-0.58)	(-0.63)	(-1.06)
Recinv	10.129	92.908	17.853
	(0.05)	(0.46)	(0.09)
Constant	6.085***	6.408***	5.016***
	(5.65)	(5.80)	(4.99)
Year Dummies	Included	Included	Included
Industry Dummies	Included	Included	Included
R-Squared	0.624	0.621	0.616
Number of Observation	487	487	487

t statistics in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

The Relation between Pension Deficit in Defined Benefit Company and Both Pension Plan Company to Audit Fee

In this second regression, we used the model:

$AUDITFEE_{i,t} = \beta 0 + \beta 1 PENSIONDEFICIT_{i,t} + \beta 2 BIG_{i,t} + \beta 3 OPINION_{i,t} + \beta 4 MTB_{i,t} + \beta 5 FIRMSIZE_{i,t} + \beta 6 LEVERAGE_{i,t} + \beta 7 ROA_{i,t} + \beta 8 FIRMAGE_{i,t} + \beta 9 GENDER_{i,t} + \beta 10 RECINVRATIO_{i,t} + \beta 11 YEAR_{i,t} + \beta 12 INDUSTRY_{i,t} + \varepsilon$ ……………………….... (2)

Where the dependent variable for this model is the natural logarithm of audit fee and the independent variable for pension deficit is from pension liabilities divided by total assets. The difference from the first regression is that in here the samples are divided by the pension plan type that the company uses, which regresses the pension deficit effect to audit fee in companies using defined benefit only, and regresses the pension deficit effect to audit fee in companies using both pension plans.

In Table 8, it can be seen that the pension deficit only affects the audit fee when it is in a defined benefit company, only with positive significance (4,739 with p value <0,01), while the pension deficit is not affecting the audit fee when it has both pension plans. The other variables that have a positive significance in the two groups are Big4 and firm size. While the other positive significance in companies using defined benefit is the leverage and for both pension plans is in its market to book ratio. In which, if the market to book is increasing, the audit fee will also get higher, even though it is not as high as firm size. This result can describe that the second hypothesis is accepted, as pension deficit matters more in a

company using defined benefit rather than a company using both pension plans and it became one of the auditor considerations when charging the company. When the pension deficit is increasing, the audit fee charge by auditors will also increase.

The reason why the pension deficit is more significant in defined benefit is that the nature of the defined benefit pension plan will have a pension deficit, and when the company has both pension plans there are pension deficits, but it is not affecting the judgement decision of the auditor as it is more important for the auditor to focus more on each pension plan risk that is borne by both pension plans. This cannot be complementary in the eyes of Indonesian law, given the risk for the auditor to evaluate and re-trace the amount of pension benefit in a defined benefit company in the future that might lead to audit risk, which then leads to more work for the auditor. While in a company that has a defined benefit, only the risk of pension deficit is a matter for concern, as it reflects the company credibility in paying the employee pension.

Table 8: Multiple Linear Regression in Companies Using Defined Benefit to Audit Fee and Companies Using both Pension Plan to Audit Fee

Variable	Defined benefit	Defined benefit and defined contribution
	Audit fee	*Audit fee*
Pension deficit	4.739***	0.276
	(3.47)	(0.07)
Big4	0.791***	0.359**
	(9.23)	(2.10)
Opinion	0.177	0.000
	(0.46)	(.)
Mtb	4.476	27.555*
	(0.82)	(1.83)
Firm size	0.474***	0.395***
	(13.54)	(6.04)
Leverage	408.089**	578.565
	(2.23)	(1.01)
Roa	-0.002	-0.002
	(-0.36)	(-0.14)
Firm age	-0.004	0.167
	(-0.08)	(1.14)
Gender	-0.061	-0.297
	(-0.69)	(-1.36)
Recinv	103.470	110.562

	(0.48)	(0.16)
Constant	6.283***	8.704***
	(5.80)	(4.17)
Year Dummies	Included	Included
Industry Dummies	Included	Included
R-Squared	0.587	0.600
Number of Observation	364	123

t statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Conclusion

In Indonesia, pension plans are regulated using several regulations, one of which is law number 13 year 2003, stating that every company needs to have a minimum defined benefit plan for their employee pension plan and defined contribution as a voluntary decision. The company decision on choosing the pension plan also affects the audit fee, companies that use both pension plans will have a higher audit fee than companies with only defined benefit. The reason for this is because both pension plans bear their own risk, and in the eyes of Indonesian law, the contribution made by the employer is involved in defined benefit only, while the defined contribution is purely from the employee. It makes the judgement from auditor riskier and it leads to more work for auditors, hence increasing the price of audit fees. The pension deficit in a defined benefit company will also affect auditor judgement and the higher the pension deficit the more likely they will charge more audit fees, but it is a different case for companies with both pension plans, as the pension deficit will not affect their judgement, but the risk of both pensions combined will be the one affecting their judgement as the amount of audit fee for companies using both pension plans is already higher and it is more important for the auditor to judge each pension plan risk than the pension deficit.

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Appendix

Variable	Definition	Source
Dependent Variable		
AUDITFEE	Natural logarithm of audit fee. Chen et al. (2017)	Financial Report
Independent Variable		
PENSIONPLAN	Dummy variable in which if company use Defined Benefit pension plan will given value 1, but if company use Defined Contribution only or Defined Benefit and Defined Contribution will given value 0. Chen et al. (2017)	Financial Report
PENSIONDEFICIT	$$\frac{PENSION\ LIABILITIES}{TOTAL\ ASSET}$$ Chen et al. (2017)	Financial Report
Control Variable		
BIG4	Dummy variable in which if company use Big 4 auditor company will be given value 1, but if company use non Big 4 auditor company will be given value 0. Chen et al. (2017)	ORBIS
OPINION	Dummy variable in which if the audit opinion for company is unqualified opinion will be given value 1, but if the audit opinion for company is non unqualified opinion will be given value 0. Bell et al. (2001)	ORBIS
MTB	Market value of equity compare to book value of equity Ratio $$\frac{MARKET\ VALUE\ of\ EQUITY}{BOOK\ VALUE\ of\ EQUITY}$$ Chen et al. (2017)	ORBIS
FIRMSIZE	defined as the log of total assets Chen et al. (2017), Bell et al. (2001)	ORBIS
LEVERAGE	$$\frac{LONG\ TERM\ LIABILITIES}{TOTAL\ ASSET}$$ Chen et al. (2017)	ORBIS
ROA	Net Income devided by Total Asset Charles et al. (2009)	ORBIS

FIRMAGE	Natural logarithm of company age since company IPO	ORBIS
GENDER	Dummy variable in which if the auditor engagement gender is woman will given value 1, but if the auditor engagement gender is man will given value 0.	Financial Report
RECINV	$$\frac{RECEIVABLE + INVENTORY}{TOTAL\ ASSET}$$ (Abbott et al. 2003)	Orbis