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Risk Profile, Secure Bond, and Bond Rating in Banking Industry

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Abstract **-** The research aimed to assess the impact of the Risk Profile on the banking industry bond ratings in Indonesia Stock Exchange (IDX) and have a rating for bonds at PT PEFINDO. Samples were selected by purposive sampling method. The population were banks listed on the Indonesia Stock Exchange in 2015-2018. The population was 44 banks and 16 banks were selected as samples. The analysis a used descriptive statistics and Partial Least Square (PLS) for testing structural and structural models. The results show that Non-Performing Loan (NPL) and Loan to Deposit Ratio (LDR) directly have a significant direct positive effect on bond ratings, and security directly do not have a significant effect on bond ratings, security strengthen risk relationships credit with a bond rating. However, security weakens the relationship between liquidity risk and the bond rating. The variables indicate that these variables can explain the bond rating of 44,4% while the remaining 55,6% is influenced by other variables not contained in the research model.

Keywords: risk profile, credit risk, liquidity risk, secure bond, bond rating, banking industry

I. INTRODUCTION

The capital market is a market where investors meet with issuers to obtain funding for the company. Sources of funding come from internal and external companies. Short-term funding usually uses current liabilities, while long-term funding uses bonds. Bonds are usually referred to as fixed-income securities issued by the issuer to investors, and the issuer will provide a return to investors in the form of coupons paid regularly, and the principal value when the bonds are due (Manurung & Tobing, 2008).

However, bonds also have risks, one of which is liquidity risk, which is the risk arising from the possibility of illiquid of a bond in the market making it difficult to sell. Another risk is the default risk, the risk in question is the inability of the issuer to meet financial obligations (Keown et al., 2011). One signal that can determine the risk of default bond is bond ratings. Therefore in financial markets, bond ratings are significantly essential.

Previous researches analyze how credit ratings affect yields on a company's bonds as a result of the information ratings represent default risk (Kisgen & Strahan, 2010). Investors can assess the level of credibility of a company and be able to adjust their investment strategies in accordance with the rating changes given by the Rating Agency in Indonesia, namely PT Pemeringkat Efek Indonesia (PEFINDO) or Credit Rating Agency in evaluating financial institutions and evaluating bonds by forming a rating for reflecting significant changes in the company's financial and business performance involving a broad review of industry profile risk, business risk, and financial risk so as to affect the company's overall credit profile, including the performance of corporate bond prices (Hite & Warga, 1997) and the asymmetry of stock trading information (He, Wang & Wei, 2011). Higher bond ratings allow companies to lend better and thus have a positive effect on the value of a company. Many investors and banks are required to invest only in investment-grade securities due to portfolio strategies or government regulations (Bae, Kang & Wang, 2015). This may influence the allocation of risk capital in the economy through bond ratings issued by PEFINDO.

As an intermediary institution, the banking industry is an important sub-sector in the economy which can channel community funds into productive asset investments that encourage the productivity of the real sector and the accumulation of capital of a country (Bencivenga & Smith, 1991). National

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banking which continues to be affected by global and domestic economic conditions must continue to maintain its existence in becoming an institution of trust for the public in saving funds and to invest. This is because the biggest source of funding for banks comes from the public.

Trust from the public to the bank can be seen from the soundness of the bank. The Rating of Bank Soundness is stated in the Financial Services Authority Regulation Number 4/POJK.03/2016 clause 2 paragraph 3, and Bank Indonesia also has established a risk-based bank soundness rating system in Peraturan Bank Indonesia (PBI)/Bank Indonesia Regulations No. 13/1/PBI/2011 concerning the assessment of the soundness of commercial banks using a Risk-Based Bank Rating (RBBR) approach that includes an assessment of four factors: (1) Risk Profile, (2) Good Corporate Governance, (3) Earnings and (4) Capital which is known to be RGEC method. The level of the soundness of banks is a significantly important aspect for all parties including stakeholders, so the development of the banking industry currently has contributed to changes in the International valuation approach that leads to a risk-based supervision approach (Hamolin & Nuzula, 2018). It is intended that banks can detect internal and external factors that can increase risk, obtain prevention and repair measures effectively and efficiently (Setiawan & Fauziah, 2017). Increased risk exposure and the application of a risk-based supervision approach will affect the banking risk profile.

Risk Profile according to Pramana and Yunita (2015) is an assessment of inherent risk and the ability of bank management to manage problem loans in banks. Based on PBI No.13/1/PBI/2011 Risks contained in the risk profile include credit risk, market risk, operational risk, liquidity risk, legal risk, strategic risk, compliance risk, and reputation risk. However, the research only takes two risks, namely credit risk and liquidity risk, both of which has a positive and negative impact on the bank by following the business conditions of banks in a given period. Credit risk aims to measure the ability of bond issuers to repay principal and interest payments promptly. Meanwhile liquidity risk is to illustrate the risk that will occur if the bondholders need funds quickly while bond certificates cannot be sold at a reasonable price. Measurement of the Risk Profile in this research is proxied by a Non-Performing Loan (NPL) ratio to measure credit risk and a Loan to Deposit Ratio (LDR) ratio for liquidity risk.

The OJK report states that the 2018 banking risk profile is maintained with manageable credit risk accompanied by NPL risk, adequate liquidity, and maintained market risk. The risk outlook for banking assets in 2018 increased slightly from the previous year. This is reflected in the growth of Risk-Weighted Assets (RWA) of 9,88% (YoY), up from 9,59% (YoY) in December 2017. The increase was driven by an increase in credit RWA from the previous year 8,67% (YoY) to 10,06% (YoY). This increase was also influenced by credit risk with a declining NPL ratio. In December 2018, the gross NPL ratio was recorded at 2,37% or decreased from the previous year of 2,59%, followed by a decrease in net NPL to 1,04% from 1,17% in the same period the previous year. Likewise, liquidity risk with the bank's LDR rose to 94,04% in the reporting period compared to 89,87% at the end of 2017.

Pramana and Yunita (2015) shows that the NPL ratio is an indicator in describing the quality of bank management to manage problem loans at banks. Higher ratio leads to a worse quality of credit at the bank which causes the number of problem loans and the possibility of a bank in a problematic condition. If the possibility of a bank is in a bad condition, the company's bond rating will drop (Pramana & Yunita, 2015; Susanto et al., 2012). While the LDR ratio according to (Dendawijaya, 2003) LDR is used to measure the entire amount of credit given by banks with funds received by banks. A high LDR reflects a good signal for investors because a good level of liquidity will indirectly reduce the risk of default or the repayment of long-term obligations (debt settlement) so that it has an impact on bond ratings (Dewi & Norita, 2012; Pramana & Yunita, 2015). The existence of risks contained in a bond can be minimized by the existence of security for the bond. Pertiwi (2013) states that bond ratings will be high if the company guarantees high assets for bonds. This is a signal to investors that the bonds in the company are safe (Nurmayanti & Magreta, 2009; Pertiwi, 2013; Yuliana, 2011). While Almilia and Herdiningtyas (2005), Sakinah, Pamint and Kadafi (2017) and Werastuti (2015) state that secure bonds do not affect the bond rating, while Febriani et al. (2013) suggests that secure bond cannot be used as factors to predict bond ratings. Diverse results from previous research on the effect of security on bond ratings become a gap in this research. Hence the purpose of this research is to determine the existence of this security variable to strengthen or weaken the effect of risk profiles on improving bond ratings in the banking industry. The objective of this research is to find out the direct influence of credit risk and liquidity risk on bond ratings, then the existence of security in this context strengthens or weakens the effect on bond ratings. The moderation of security is still rarely done by other research.

Signaling theory explains the sign of information asymmetry between the company and outsiders which is described by financial statements from management so that the risk in bonds can be predicted through bond ratings (Puryanti, 2010). The information signals the financial condition of a particular company about the likelihood of the debt being incurred (Raharja & Sari, 2008). Therefore, the bond rating can provide a signal of how safe a bond is for investors through the company's credit quality. The better the credit quality, the higher the rating is obtained (Setyapurnama & Norpratiwi, 2008).

Credit risk is the risk associated with the possibility of failure of the debtor or other parties to

pay off bank obligations, both the principal and the interest at a specified time (Kasidi, 2010). The credit risk assessment in this research was carried out using a ratio of NPL. According to Darmawan (2004), NPL is a ratio used by banks in refuting the risk of credit repayment failure by debtors. Furthermore, Pramana and Yunita (2015) show the ability of NPL ratios in describing the quality of bank management to manage problem loans at banks. The worse quality of credit at the bank is caused by the higher ratio, which then leads to greater number of problem loans as well as the possibility of a bank in a problematic condition. If the possibility of a bank is in error, it can be predicted that the company's bond rating will go down (Almilia & Herdiningtyas, 2005). This shows that there is an influence between a company's NPL ratio and bond rating. Lestari and Indriani (2016), Pramana and Yunita (2015) and Susanto et al. (2012) show that the NPL has a negative and significant effect on bond ratings. The shape of the negative effect means that the higher the NPL ratio, the worse the quality of bank credit will cause a lower bond rating. In contrast, the smaller the NPL ratio will affect the high bond rating.

H_1: Credit Risk as measured by NPL has a negative effect on bond ratings

Liquidity risk is the risk of the bank's inability to meet obligations that have matured (Rivai et al, 2013). Liquidity risk analysis aims to measure the capability of a bank in paying off its debts, repaying to its depositors, and being able to fulfill the credit request submitted without delay (Merkusiwati, 2007). Thus, liquidity risk does not only affect bank performance, but also the bank's reputation (Jenkinson, 2008). The risk in this research is measured using an LDR.

According to Dendawijaya (2003), LDR is the ratio between the total amount of loans given by banks and funds received by banks. If a loan fails, the bank will experience liquidity problems in returning funds deposited by the public. Therefore, higher ratio leads to a higher effectiveness of banks in channeling credit which will later reflect bank management and provide a good signal to the market. Bond ratings can be a signal of a company's financial condition and illustrate the likelihood that will occur related to debt held (Raharja & Sari, 2008). In previous studies, liquidity includes factors that predict bond predictions (Febriani et al., 2013; Nurmayanti & Magreta, 2009; Puryanti, 2010). The large LDR ratio will affect the high bond rating, as well as the smaller LDR ratio will affect the low bond rating. Hariyati (2016), Sari (2007) and Susanto et al. (2012) point out that the LDR ratio has a positive effect on bond ratings. In contrast, Almilia and Herdiningtyas (2005), Dewi and Norita (2012), and Pramana and Yunita (2015) have shown a negative relationship between LDR and bond ratings since the higher the LDR ratio will cause the bank's low liquidity capability, so the possibility of a bank in a problematic condition will be even greater and have an impact on the bond rating downgrade.

H_2: Risk liquidity as measured by the LDR positive effect on bond ratings.

The level of risk contained in a bond is influenced by the secure that accompanies the bond because among the secure means that the company can minimize the initial risk to investors. Gallagher and Andrew (2007) reveal that secure bond is one of the important aspects of bonds since its existence will convince investors that the company can reduce the risk of default on bonds to be received. Therefore, investors prefer guaranteed bonds than the ones without security (Brister, Kennedy & Liu, 1994).

Hasan and Dana (2018), Nurmayanti and Magreta (2009), Pertiwi (2013), Sari and Badjra, (2016) and Yuliana (2011) have stated that companies that issue secure bonds will have a positive and significant effect in predicting bond ratings. Companies that make bonds containing security are believed to be able to give better ratings so that investors will feel safe for investment because of the low probability of failure to pay a company's obligations.

On the other hand, Almilia and Herdiningtyas (2005), Estiyanti and Yasa (2012), Sakinah, Paminto and Kadafi (2017) and Werastuti (2015) have pointed out that security does not have an effect on bond ratings, while Febriani et al. (2013) suggest that secure bond cannot be made factors to predict bond ratings since an increase in secure are said to have no effect on the profitability of an increase in the company's bond rate.

H_3: Security have a positive effect on bond ratings.

Rivai et al. (2013) point out that liquidity ratios measure the risk if there is an inability of the company to meet obligations that are due. Liquidity risk describes the risk that will occur if the bond owner needs funds in a short time but the bond cannot be sold at a reasonable price. Nurmayanti and Magreta (2009) and Puryanti (2010) reveal that liquidity ratios measured by LDR have a significant positive effect on corporate bond ratings. Credit risk is the risk associated with the possibility of failure of the debtor or other parties to pay off bank obligations, both the principal and the interest at a specified time (Kasidi, 2010). The credit risk assessment in this research was carried out using a NPL. Pramana and Yunita (2015) and Susanto et al., (2012) have said the credit ratio as measured by NPL has a negative and significant effect on corporate bond ratings. Therefore, H4 and H5 are given:

H_4: Secure strengthen the effect of credit risk on bond ratings

H_5: secure strengthen the effect of liquidity risk on bond ratings

II. METHODS

The population are 44 banking companies listed on the Indonesia Stock Exchange in 2015-2018. The

sampling technique is purposive sampling method. The list of 16 research sample banking companies that qualify are: (1) Bank Capital Indonesia Tbk (BACA), (2) Bank Bukopin Tbk (BBKP), (3) Bank Negara Indonesia Tbk (BBNI), (4) Bank Rakyat Indonesia Tbk (BBRI), (5) Bank Tabungan Negara Tbk (BBTN), (6) Bank Danamon Indonesia Tbk (BDMN), (7) Bank Pembangunan Daerah Jawa Barat dan Banten Tbk (BJBR), (8) Bank Mandiri Tbk (BMRI), (9) Bank CIMB Niaga Tbk (BNGA), (10) Bank Maybank Indonesia Tbk (BNII), (11) Bank Permata Tbk (BNLI), (12) Bank Victoria International Tbk (BVIC), (13) Bank Mayapada Internasional Tbk (MAYA), (14) Bank OCBC NISP Tbk (NISP), (15) Bank Pan Indonesia Tbk (PNBN) and (16) Bank Woori Saudara Indonesia 1906 Tbk (SDRA). The type of data is secondary data obtained from the publication of financial statements of banking companies that issue bonds in 2015-2018 which are accessed on the official website of the IDX, namely www.idx.co.id and data on corporate bond ranking in 2015-2018 obtained from the website www.PEFINDO.com. Data analysis uses descriptive statistics and Partial Least Square (PLS) for testing structural and structural models. The conceptual framework of this research is presented in Figure 1.

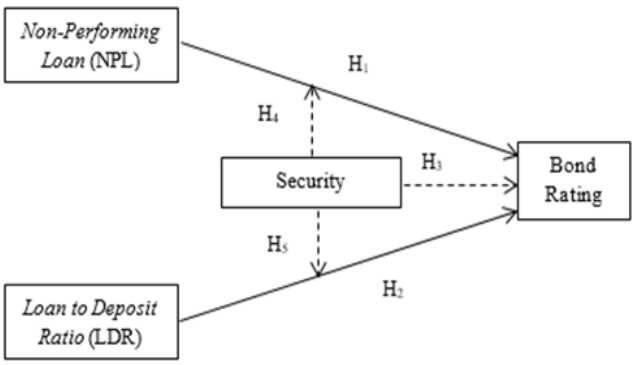

Figure 1 Research Framework

The dependent variable is the bond rating, this variable is seen based on the ranking issued by PT PEFINDO divided to two categories, namely investment grade (AAA, AA, A, BBB) and non-investment grade (BB, B, CCC, D) (Tandelilin, 2010). This variable uses the interpretation of the research by Arif (2012) which uses bond rating scoring with the intention of high weighting for a higher rating based on the ranking issued by PEFINDO in Table 1.

Table 1 Bond Rating Scoring

Bond Ranking	Scoring
IdAAA	20
IdAA+	19
IdAA	18

Table 1 Bond Rating Scoring (Continued)

Bond Ranking	Scoring
IdAA-	17
IdA+	16
IdA	15
IdA-	14
IdBBB+	13
IdBBB	12
IdBBB-	11
IdBB+	10
IdBB	9
IdBB-	8
IdB+	7
IdB	6
IdB-	5
IdCCC+	4
IdCCC	3
IdCCC-	2
IdD	1

Source: (Arif, 2012)

Variable smoking in this research is profile risk measured with the NPL ratio (X1) and LDR (X2). The use of these risks is due to the two risks can be measured using financial ratio analysis. X1 is used to measure the ability of banks as debtors to counter the risk of default on loans (Darmawan, 2004). The formula used to measure NPL (SE BI No.13/24/ DPNP/2011) are given:

$$\text{NPL} = \frac{\text{Non-performing loans or financing}}{\text{total credit or financing}} \quad (1)$$

The formula used to measure LDR (X2) to measure the liquidity of a bank (SE BI No. 6/23/ DPNP / 2011) is:

$$\text{LDR} = \frac{\text{Total loans to non-bank third parties}}{\text{total third funds (DPK)}} \quad (2)$$

The final variable used in the research is the variable in the form of the secure bond measured using a dummy variable. Code 0 shows bonds without bond, while code 1 shows bonds with bonds (Almilia & Devi, 2007). Brister, Kennedy and Liu (1994) reveals that investors prefer guaranteed bonds to unsecured bonds.

III. RESULTS AND DISCUSSIONS

Table 2 is the descriptive statistic. It shows the results that the samples taken are 64 samples. The minimum value of the bond rating is 13, the

maximum value is 20 and the average value is 17,969. The minimum NPL ratio is 33,6% owned by Bank Mayapada International Tbk in 2016, the maximum value is 323,6 % owned by Bank Capital Indonesia Tbk in 2015, and an average value is 107%, which means banks have problem loans to their total loans by 107%. The minimum LDR ratio is 50,6% owned by Bank Capital Indonesia Tbk in 2017, the maximum value is 146,4% is owned by Bank Woori Saudara Indonesia Tbk and the average value is 89,8 %. Meanwhile the minimum value of security is 0, the maximum value is 1 and the average value is 0,375.

Figure 2 is the PLS Algorithm Output Results. It provides the conversion of the equation of the measurement model (outer model) of the credit risk variable with the NPL indicator and the liquidity risk variable shows that the LDR indicator has a value of 1,000, meaning that the indicator affects each variable because it is more than 0,7. The security variable shows that the value is 1,000 and the bond rating variable is 1,000. Component indicators moderating variable 2 has a value of 0,836, which means that the component moderating effect variable 2 is low against ranked variables bond rating. The moderation variable indicator component 1 has a value of 0,802, meaning that the moderation variable component 1 has a lower effect on bond rating than the moderation 2.

Figure 2 shows the conversion equation structural model (inner models) with a coefficient of direct effect of credit risk by 0,609, which means that the NPL has a positive impact by 60,9 % on bond rating. The liquidity risk has a coefficient of direct effect is 0,786 which means that LDR has influence positive at 78,6 % on bond ratings and security have coefficient direct effect at 0,144 meaning that the guarantee has an influence positively by 14,4 % of the bond rating.

The coefficient indirect effect of security variable concerning the credit risk of bond ratings is 0,348 which means that secure bond has an influence positively by 34,8 % in the relation of NPL on bond rating. The positive effect is seen that the security can strengthen the relationship NPL on bond ratings. A coefficient indirect effect of the security concerning liquidity risk on bond ratings is 0,146 meaning that the guarantee has an influence positively by 14,6% in a relation of LDR on bond rating, It is considered that the negative effects may occur since the security can strengthen the LDR against bond rating.

Table 3 shows that the results of all the variables, bond ratings, NPL, LDR and guarantees have value loading factor greater than 0,7. Thus, the indicator can be declared valid as a measure of its latent variable or has fulfilled convergent validity.

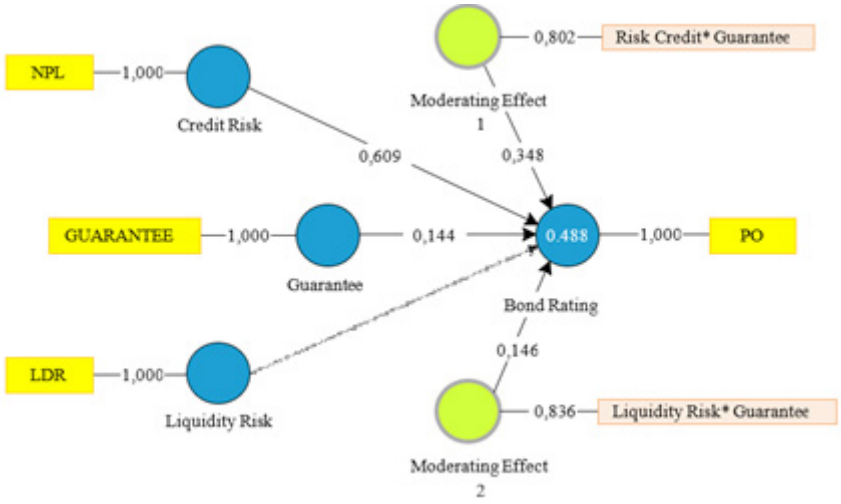

Figure 2 PLS Algorithm Output Results Source: data processed (2019)

Table 3 Convergent validity test with Loading Factor

Variable	Loading Factor	Explanation
Bond Rating	1,000	Valid
NPL	1,000	
LDR	1,000	
Security	1,000	

Source: data processed (2019)

Table 4 Test Discriminant Validity with AVE

Variable	AVE	√AVE	Explanation
Bond Rating	1,000	1,000	Valid
NPL	1,000	1,000	
LDR	1,000	1,000	
Security	1,000	1,000	

Source: data processed (2019)

The latent variable is indicated by the square root of average variance extracted (√AVE). It is provided that when √AVE latent variables are greater than the correlation of the latent variable indicators, it shows the variables having discriminant validity is good. In Table 4, it can be seen that all variables, namely bond rating, NPL, LDR, and security have √AVE value greater than 0,5. Thus, the indicator can be declared valid as a measure of its latent variable.

Table 5 shows that all variables, which are bond rating, NPL, LDR, and collateral values of composite reliability and Cronbach's alpha have values above 0,7. Hence these indicators can be declared reliable or indicate the existence of high measuring instrument reliability so that it can be said that each construct has a high correlation.

Table 6 shows that the relationship between NPL variables that measure credit risk with bond ratings is T-statistic > t table is 5,362 (> 2,00030). It has P-value 0,000 < 0,05 and an original sample value of 0,609 which shows the direction of the relationship between the NPL and the bond rating is positive, which means the NPL variable directly has a significant effect on the bond rating with a positive direction so that H_1 is rejected. The relationship between LDR variables that measures liquidity risk with bond ratings is T-statistic that is 6,898 (> 2,00030), has a P-value 0,000 < 0,05 and the original sample value is 0,786. It indicates that the direction of the relationship between the LDR and the bond rating is positive, meaning that the LDR variable directly has a significant effect on rank bond a positive direction so that H_2 is accepted.

The relationship between security variable with the bond rating is T-statistic that is 1,408 (< 2,00030), has a P-value of 0,160 > 0,05 and the original sample value of 0,144 which indicates the direction of the relationship between the security and bond rating is positive, which means the variable of security with the direction of positive direct no significant effect on bond ratings so H_3 is rejected. The fourth hypothesis secure strengthening the effect of credit risk on bond ratings. The test results show the T-statistic value is 2,436> 2,00030 and has a P-value of 0,015 < 0,05, which means that the secure variable directly has a stronger effect on the credit risk related to the bond rating so that H_4 is accepted. The fifth hypothesis secure strengthening the effect of liquidity risk on bond ratings. The test results show the T-statistic value is 0,939 < 2,00030 and has a P-value of 0,348 > 0,05 which means that the secure variable has no direct effect on the relationship of credit risk to the bond rating so that H5 is rejected.

Based on sample identification and the results of hypothesis testing can be concluded as follows. The results of the first hypothesis (H_1) test showed that there was a significant direct effect of the NPL

Table 5 Test Reliability with Composite Reliability and Cronbach's Alpha

Variable	Composite Reliability	Cronbach's Alpha	Explanation
Bond Rating	1,000	1,000	Reliable
NPL	1,000	1,000	
LDR	1,000	1,000	
Security	1,000	1,000	

Source: data processed (2019)

Table 6 Hypothesis Test Results

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
NPL – Bond Rating	0,609	0,619	0,114	5,362	0,000
LDR -> Bond Rating	0,786	0,795	0,114	6,898	0,000
Security - > Bond Rating	0,144	0,136	0,102	1,408	0,160
Moderating Effect 1 - > Bond Rating	0,348	0,336	0,143	2,436	0,015
Moderating Effect 2 - > Bond Rating	0,146	0,155	0,156	0,939	0,348

Source: Data processed (2019)

variable on the ranking of the banking industry bonds on the Indonesia Stock Exchange (IDX) in 2015-2018 in a positive direction. The NPL variable shows the ability to describe the quality of bank management in managing NPL in banks (Pramana & Yunita, 2015). The higher ratio leads to a worse quality of credit at the bank, which then causes the number of problem loans and the possibility of a bank have problematic conditions. Eventually, the company's bond rating will decline (Almilia & Herdiningtyas 2005). However, the results of this research are not in line with research by Lestari & Indriani (2016); Pramana & Yunita (2015) and Susanto et al, (2012). Where NPL has a negative effect on the bank's bond rating. If the NPL is getting higher, the quality of bank credit becomes worse causing a lower bond rating. On the other hand, the smaller the NPL ratio will affect the high bond rating.

The result of second hypothesis test (H_2) suggests that there is a significant direct effect of variable LDR on the bond rating of the banking industry in Indonesia Stock Exchange (IDX) in 2015-2018 with a positive direction. The results of the research are in line with Dendawijaya (2003) who states that LDR shows the capability of a bank in meeting the needs of the community in the form of credit. High LDR will reflect the high effectiveness of the management of banks to extend credit well and will increase the confidence of investors to invest in the bank, so that with liquidity will indirectly reduce the risk of default (default) or the repayment of long-term liabilities (repayment bonds) so there is an impact on rising bond ratings. This is in line with research by Hariyati (2016) and Susanto et al, (2012) pointing out that the LDR ratio research have a positive effect on bond ratings, which means that each increase in the LDR percentage is in line with the bond rating increase. Therefore, higher LDR ratio comes out in higher rating of a bond, while smaller LDR ratio leads to lower bond rating.

The results of the third hypothesis test (H_3) show that there is no significant direct effect of the secure variable on the banking industry bond rating on the Indonesia Stock Exchange (IDX) in 2015-2018. Security Variable is one of the important aspects of the bond because of the secure will convince investors that the company can minimize the risk of the bonds will be accepted (Gallagher & Andrew, 2007). The research results are consistent with the research by Almilia and Devi (2007), Sakinah, Paminto and Kadafi (2017) and Werastuti (2015) stating that secure bond has no effect on bond ratings, which means that secure bond cannot be used as a factor to predict bond-rating due to the increase in secure bond is said to have no effect on the profitability of the increase in the level of corporate bonds.

On the other hands, the results of the research are not in accordance with research conducted by Hasan and Dana (2018), Nurmayanti and Magreta (2009), Pertiwi (2013), Sari and Badjra (2016) and Yuliana (2011) having statements that companies that issue bonds with security are believed to be able to increase investor confidence in investment due to the low probability of failure to pay obligations of a company, so they feel safe to create a bond rating firm, which leads to a better rating.

The result of the fourth hypothesis test (H_4) states that a secure bond can moderate the credit risk relationship as measured by the ratio of NPL to bond rating. Companies must provide security on bonds to reduce credit risk because it will minimize the possibility of failure of debtors or other parties to pay off bank obligations, both principal and interest at a specified time (Kasidi, 2010). It generally is possible that debtor cannot meet obligations to a bank for various reasons, such as business failure. It is either due to the borrowers' character who currently do not have good intentions to fulfill liabilities to banks, or the fault of the banks in the loan approval process. Hence with a security, the company is better able to provide a sense of security for investors against corporate credit risk, therefore the secure strengthens the relationship of credit risk to bond ratings.

However, the result of testing fifth hypothesis (H5) shows that the secure is not able to moderate the relationship of liquidity risk as measured by the LDR against bond rating. It means that even if the company secures a bond, there is no effect on liquidity risk. In this case, the secure weakens the risk relationship of the company's inability to meet obligations due to the bond rating.

IV. CONCLUSIONS

Several conclusions are finally drawn: (1) Credit risk variables measured by NPL directly have a significant direct effect on the positive direction of the bond rating, (2) Liquidity risk variables measured by the LDR ratio has a direct significant positive effect on the bond rating, (3) The security variable directly does not have significant influence on the bond rating, (4) The security variable is able to moderate the credit risk relationship as measured by the ratio of NPL to bond rating, in this case the secure strengthens the relationship between both, (5) The security variable is not able to moderate the liquidity risk relationship as measured by the ratio of LDR to bond rating, in this case, the security weakens the relationship between the two.

Limitations of the research are provided, namely: (1) The short research period has an effect on the research sample which only obtains bond rating data for investment-grade categories (AAA, AA, A, BBB) only, (2) The research only uses two financial variables and 1 non-financial variable in predicting bond ratings with a value of R^2 of 44,4% while the remaining 55,6% is influenced by other variables not included in the research model.

Finally, suggestions for further research are: (1) Adding research periods to get more sample sizes and obtaining bond rating data that are categorized as investment grade and non-investment grade, (2) Adding testing variables other than credit risk and

liquidity risk that are able to measure risk profile of banking such as risk market, operational risk, legal risk, strategic risk, compliance risk and reputation risk, (3) Use a proxy different, other than the ratios used in this research, such as Credit Risk Ratio (CRR), Risk Asset Ratio (RAR), Liquidity Ratio (LR), Deposit Risk Ratio (DRR) as well as adding non-financial variables such as auditor reputation, company size, bondage and so forth to determine bond ratings.

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