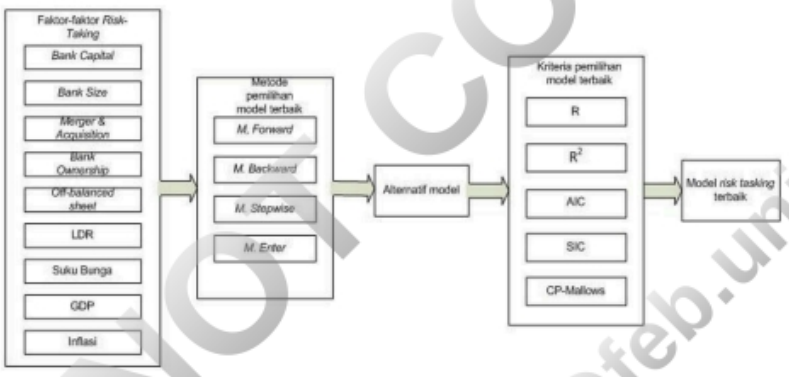
provide funds to its debtors from capital and deposits from the public. This ratio is used to measure the level of liquidity. Additionally, there are external factors that influence risk-taking; they include inflation, GDP, and interest rates.

3.1 *Sampling*

The study uses a simple random sampling technique. In this approach, each member of a subset of a statistical population has an equal probability of being chosen. The sample of this research is 28 banks located and listed in Bursa Efek Indonesia (BEI) over the period 2013-2017. The primary data sources included financial statements, annual reports, ICMD (Indonesian Capital Market Directory), and the official website of bank in 2013-2017.

3.2 *Measurement*

To find the variables relating to bank risk-taking, a model is made by using four methods. A theoretical framework is to be described as follows:



There are criteria for selecting the best model in each method. They are:

1. The coefficient of determination (R^2)
   A statistical measure which represents the proportion of the variance for a dependent variable explained by an independent variable in a regression model called R-squared. In case the R^2 of a model is 0.50, then approximately half of the observed variation is explained by the input.
2. R^2adj
   The adjusted R-squared is a modified version of R^2. It increases only in case the new term improves the model more than it would be expected by chance. However, it decreases when a predictor improves the model by less than expected by chance.
3. Akaike Information Criterion (AIC) and Schwarz Information Criterion (SIC)
   An estimator of the relative quality of statistical models for a certain set of data is AIC. Given a collection of models for the data, it estimates the quality of each one and provides a means for selection. The Schwarz Information Criterion (SIC) is a measure for model selection among a finite set, where the one with the lowest SIC is preferred. In both AIC and SIC methods, the model with the lowest is preferred (Wahyu, 2007).
4. Mallows's Cp Criterion
   Mallows's Cp Criterion is used to assess the fitness of the regression model estimated using ordinary least squares. It is applied in model selection, where several predictor variables are available for forecasting outcomes. The objective is to determine the best model involving substitutes of these predictors. A small value of Cp Mallows means the model is relatively precise.

4 RESULT AND DISCUSSION

Table 2. Summary Result

	Forward		Backward		Stepwise		Enter	
	B	Sig	B	Sig	B	Sig	B	Sig
Risk	1.362	0	1.362	0	1.362	0	1,364	0
size	0,016	0	0,016	0	0,016	0	0,016	0
D Ma	-0.053	0	-0.053	0	-0.053	0	-0.052	0
D Own	0,031	0037	0,031	0037	0,031	0037	0,031	0.43
off	-	-	-	-	-	-	.124	0.733
SB	-	-	-	-	-	-	-0.01	0.382
LDR	0,145	0,001	0,145	0,001	0,145	0,001	0,145	0,002
GDP	-	-	-	-	-	-	-1.954	0.604
Inf	1.029	0,013	1.029	0,013	1.029	0,013	1,707	0,066
Cons	-0.791		-0.791		-0.791		-0.658	
R2	60.60%		60.60%		60.60%		61%	
R2adj	58.60%		58.60%		58.60%		57.80%	
AIC	-669.726		-669.726		-669.726		-664.728	
SIC	-650.097		-650.097		-650.097		-636.687	
cp	4.924		4.924		4.924		10,00	

Source: Data processed.

Based on the values of R^2, R^2 adj, AIC, SIC, and Cp Mallows, both forward, backward and stepwise methods have the same value. Variables that explain bank risk-taking based on the three methods include capital, size, mergers and acquisitions, LDR, inflation, and ownership. Based on the regression result, which was chosen:

RISK = -0,791 + 1,362BCAP + 0,016BSIZE - 0,053MA + 0,145 LDR +1,029Inf + 0,031Own

5 CONCLUSION

Based on the results of the regression tests, variables that influence risk-taking include capital, size, mergers and acquisitions, LDR, inflation, and ownership. The bank capital and inflation factors are the most dominant elements influencing risk-taking decisions. Lenders with greater capital tend to take higher risks. Further research is needed on other variables influencing bank risk-taking.. since the R2adj score is 58.6%, 41.4% of other variables influence risk-taking.

REFERENCES

Haque, F. (2018). Ownership, regulation and bank risk-taking: evidence from the Middle East and North Africa (MENA) region. Corporate Governance (Bingley). https://doi.org/10.1108/CG-07-2017-0135

Hock Ng, T., Lee Chong, L., & Ismail, H. (2013). Firm size and risk-taking in Malaysia's insurance industry. Journal of Risk Finance, 14(4), 378–391. https://doi.org/10.1108/JRF-11-2012-0079

Hutasoit, S. S. (2016). Pengaruh LDR, NPL, BOPO, Ukuran Perusahaan dan CAR terhadap Risiko Kebangkrutan Bank (Studi pada Bank Umum Konvensional Periode 2012–2014). Buletin Ekonomi Moneter Dan Perbankan.

Laeven, L. and L. R. (2009). Bank Governance, Regulation and Risk-Taking. Journal of Financial Economics.

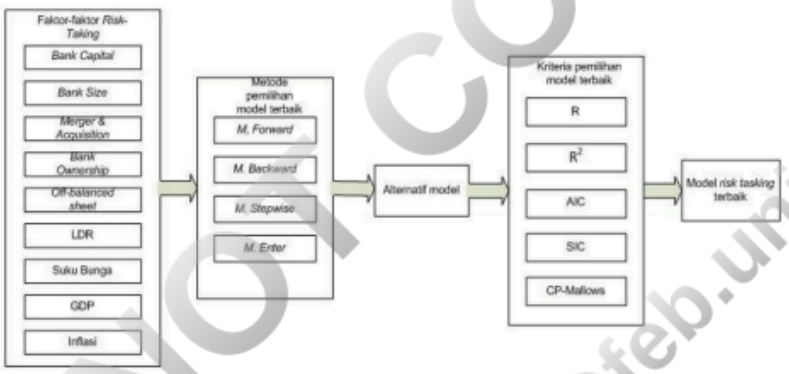
provide funds to its debtors from capital and deposits from the public. This ratio is used to measure the level of liquidity. Additionally, there are external factors that influence risk-taking; they include inflation, GDP, and interest rates.

3.1 *Sampling*

The study uses a simple random sampling technique. In this approach, each member of a subset of a statistical population has an equal probability of being chosen. The sample of this research is 28 banks located and listed in Bursa Efek Indonesia (BEI) over the period 2013-2017. The primary data sources included financial statements, annual reports, ICMD (Indonesian Capital Market Directory), and the official website of bank in 2013-2017.

3.2 *Measurement*

To find the variables relating to bank risk-taking, a model is made by using four methods. A theoretical framework is to be described as follows:



There are criteria for selecting the best model in each method. They are:

1. The coefficient of determination (R^2)
   A statistical measure which represents the proportion of the variance for a dependent variable explained by an independent variable in a regression model called R-squared. In case the R^2 of a model is 0.50, then approximately half of the observed variation is explained by the input.
2. R^2adj
   The adjusted R-squared is a modified version of R^2. It increases only in case the new term improves the model more than it would be expected by chance. However, it decreases when a predictor improves the model by less than expected by chance.
3. Akaike Information Criterion (AIC) and Schwarz Information Criterion (SIC)
   An estimator of the relative quality of statistical models for a certain set of data is AIC. Given a collection of models for the data, it estimates the quality of each one and provides a means for selection. The Schwarz Information Criterion (SIC) is a measure for model selection among a finite set, where the one with the lowest SIC is preferred. In both AIC and SIC methods, the model with the lowest is preferred (Wahyu, 2007).
4. Mallows's Cp Criterion
   Mallows's Cp Criterion is used to assess the fitness of the regression model estimated using ordinary least squares. It is applied in model selection, where several predictor variables are available for forecasting outcomes. The objective is to determine the best model involving substitutes of these predictors. A small value of Cp Mallows means the model is relatively precise.

4 RESULT AND DISCUSSION

Table 2. Summary Result

	Forward		Backward		Stepwise		Enter	
	B	Sig	B	Sig	B	Sig	B	Sig
Risk	1.362	0	1.362	0	1.362	0	1,364	0
size	0,016	0	0,016	0	0,016	0	0,016	0
D Ma	-0.053	0	-0.053	0	-0.053	0	-0.052	0
D Own	0,031	0037	0,031	0037	0,031	0037	0,031	0.43
off	-	-	-	-	-	-	.124	0.733
SB	-	-	-	-	-	-	-0.01	0.382
LDR	0,145	0,001	0,145	0,001	0,145	0,001	0,145	0,002
GDP	-	-	-	-	-	-	-1.954	0.604
Inf	1.029	0,013	1.029	0,013	1.029	0,013	1,707	0,066
Cons	-0.791		-0.791		-0.791		-0.658	
R2	60.60%		60.60%		60.60%		61%	
R2adj	58.60%		58.60%		58.60%		57.80%	
AIC	-669.726		-669.726		-669.726		-664.728	
SIC	-650.097		-650.097		-650.097		-636.687	
cp	4.924		4.924		4.924		10,00	

Source: Data processed.

Based on the values of R^2, R^2 adj, AIC, SIC, and Cp Mallows, both forward, backward and stepwise methods have the same value. Variables that explain bank risk-taking based on the three methods include capital, size, mergers and acquisitions, LDR, inflation, and ownership. Based on the regression result, which was chosen:

RISK = -0,791 + 1,362BCAP + 0,016BSIZE - 0,053MA + 0,145 LDR +1,029Inf + 0,031Own

5 CONCLUSION

Based on the results of the regression tests, variables that influence risk-taking include capital, size, mergers and acquisitions, LDR, inflation, and ownership. The bank capital and inflation factors are the most dominant elements influencing risk-taking decisions. Lenders with greater capital tend to take higher risks. Further research is needed on other variables influencing bank risk-taking.. since the R2adj score is 58.6%, 41.4% of other variables influence risk-taking.

REFERENCES

Haque, F. (2018). Ownership, regulation and bank risk-taking: evidence from the Middle East and North Africa (MENA) region. Corporate Governance (Bingley). https://doi.org/10.1108/CG-07-2017-0135

Hock Ng, T., Lee Chong, L., & Ismail, H. (2013). Firm size and risk-taking in Malaysia's insurance industry. Journal of Risk Finance, 14(4), 378–391. https://doi.org/10.1108/JRF-11-2012-0079

Hutasoit, S. S. (2016). Pengaruh LDR, NPL, BOPO, Ukuran Perusahaan dan CAR terhadap Risiko Kebangkrutan Bank (Studi pada Bank Umum Konvensional Periode 2012–2014). Buletin Ekonomi Moneter Dan Perbankan.

Laeven, L. and L. R. (2009). Bank Governance, Regulation and Risk-Taking. Journal of Financial Economics.