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Determinants of Banks Rentability Listed on The Indonesia Stock Exchange (IDX) Period 2016-2019

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Abstract

The main purpose of this study to analyze the effect of CAR, LDR, LTA, SRR, NPL, OC and GDP on bank rentability (ROA). Population in this study are all companies is the banking sub-sector listed on the Indonesia Stock Exchange period 2016-2019. The sampling method used purposive sampling, resulting in a sample of 27 companies. This study using multiple linear regression analysis with Eviews 9 software as an analytical tool. The results showed that CAR had positive and insignificant effect on ROA, LDR had positive and insignificant effect on ROA, LTA had positive and insignificant effect on ROA, SRR had negative and insignificant effect on ROA, NPL had negative and significant effect on ROA, OC had negative and significant effect on ROA, and GDP has negative and significant effect on ROA.

INTRODUCTION

The role of the banking industry is very important in improving people's welfare as well as being the main driver of country's economic growth (Ariyadasa et al., 2017). Banks have a role as implementers of monetary policy and the achievment of financial stability, so that a bank health is needed (Juwita et al., 2018).

The emergence of the ASEAN Economic Community (AEC) has had an impact on changes in banking in the world (Akbar, 2018). One of the impact of the MEA is the expansion of market share which can lead to competition between banks, including banks in Indonesia. In addition to factors that can be controlled by banks (credit quality, liquidity management, cost management, income structure, etc), rentability can also be influeced by environmental factors in which banks operate such as macroeconomic conditions in a country (Pepur & Tripovic, 2017).

The banking sector worlwide is an industry that faces high competition (Ridloah, 2016). In such conditions, banks must be able to show optimal performance and create high competitiveness by maintaining their rentability (Akbar, 2018). The company's financial

performance is used as an element of the fundamental factors which are the result of the implementation of company policies (Sudiyatno & Suharmanto, 2011). Bank must be assessed for health by conducting an assessment of the determinants of bank rentability.

An assesment of financial condition will support bank in designing future operational activities (Saputri & Khoiruddin, 2019). The Return on Asset (ROA) ratio in this study is used as a proxy for rentability because this ratio focuses more on the company's ability to earn profits based on the total assets owned (Maftukhah, 2013).

In 2016-2017, the average ROA increased by almost 1.5%. However, in 2018-2019, the average ROA decreased by almost 1.5%. ROA fluctuations can be caused by factors that influence it, both internal factors and external factors. Internal factors include Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Liquid Assets to

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Total Assets (LTA), Statutory Reserves Requirement (SRR), Non Performing Loan (NPL), Operating Cost on Operating Income (OC). Meanwhile, the external factor in this research is Gross Domestic Product (GDP).

Capital Adequacy Ratio (CAR) is an assessment of the perspective of capital in banks by looking at the availability of capital in supporting bank activities (Sari & Witiastuti, 2016). The higher the CAR will reduce the demand for external funding, so that bank profits will increase (Masood & Ashraf, 2012). Based on the provisions, banks must have a minimum availability of funds of 8% (Prasetyo & Darmayanti, 2015).

The CAR ratio in the sub-sector of banks liseted on the IDX decreased in 2016-2017, while the average ROA from 2016-2017 actually increased. Basesed on the theory, when CAR increases ROA will also increase. The indicates that there is a difference between theory and reality. According to Juwita et al., (2018) CAR has a positive effect on ROA. The results of this study are supportes by the research of Fidanoski et al., (2018). However, it's not in line with the research of Khalifaturofi'ah and Nasution (2016) and Anggraeni and Noekent (2020) which state that CAR has a negative effect on ROA.

The Loan to Deposit Ratio (LDR) is used to measure the extent to which a bank's ability to collect customer funds relies on credit as a source of bank liquidity (Dendawijaya, 2005). An increasing LDR indicates that bank profits will also increase, because interset income from loans has increased (Bougatef, 2017). Acording to Bank Indonesia regulations, the standard LDR ratio for a bank is 85%-100% (Dendawijaya, 2005).

The LDR in the sub-sector of banks listed on the IDX in 2016-2017 decreased, while in 2016-2017 the ROA increased. So otherwise in 2018-2019. Based on the theory, when LDR increases ROA also increases. This shows that there is a difference between theory and reality. According to Juwita et al., (2018) in his research showed that LDR had a positive effect on ROA. This research is supported by the research of Bougatef (2017). The results showed a difference with the research of Knezevic & Dobromirov (2016) and Soares and Yunanto (2018) which showed that LDR had a negative effect on ROA.

Liquid Asset to Total Asset (LTA) is a ratio used to mesure the amount of liquid assets owned by a bank from its total assets (Andriyani & Musdholifah, 2017). An increasing LTA ratio indicates that more assets can be converted into cash (Nugraheni & Alam, 2014), banks will lose the opportunity to earn profits because of the large amount of cash that is idle or not used for operational activities.

The LTA ratio for state-owned banks listed on the IDX shows a decrease in LTA in 2018-2019, while ROA for that year also decreased. Based on the theory, when LTA increases ROA will decrease. This indicates that there is a difference between theory and reality. The results of research by Nugraheni and Alam (2014) and Kumalasari and Syaichu (2016) state that LTA has a positive effect on ROA. The results of the study are not in line with the research of Sabrina & Muharam (2015) and Saleh and Abu Afifa (2020) which shows that LTA has a negative effect on ROA.

Statutory Reserve Requirement (SRR) is the minimum level of bank liquidity in the form of demand deposits that must be maintained by each bank (Andriyani & Musdholifah, 2017). The high ratio of SRR indicates the decreasing ROA of banks, because current accounts are non-productive assets (Aini, 2014).

The ratio of Statutory Reserves at state-owned banks listed on the IDX in 2017-2018 has increased, while ROA in that year has also increased. Furthemore, in 2018-2019 it shows that the SRR and ROA has decreased. Based on the theory, if the reserve requirement increases, the ROA will decrease. This shows that there is a gap between theory and reality. According to Hapsari and Prasetiono (2011) in their research, they state that the SRR has a positive effect on ROA. The results of this study are in line with the research of Handayani & Putra (2016). The results of the study are not in accordance with the research of Dipura & Hartomo (2016) and Wahyuningsih (2017) which show that the SRR has a negative effect on ROA.

Non Performing Loan (NPL) is a condition where the customer cannot repay part or all of his obligations to the bank (Soares & Yunanto, 2018). An increasing NPL ratio indicates a decline in the quality of the credit portfolio, which has an impact on cash flow, net income, and solvency Hapsari & Rokhim (2017). The maximum limit for NPL at banks is 5% (Prasetyo & Darmayanti, 2015).

The NPL ratio in the sub-sector of banks listed on the IDX shows that NPL in 2016-2017 has increased, while ROA in 2016-2017 has also increased. Based on the theory, when NPL increases ROA will decrease. This indicates that there is a difference between theory and reality. The results of research conducted by Abiola & Olausi (2014) and Sufian & Noor Mohamad (2012) state that NPL has a positive influence on ROA. The

results of this study are not in line with research conducted by Andriyani & Musdholifah (2017) which shows that NPL has a negative effect on ROA. The results of the study are in line with the research of Pepur & Tripovic (2017) and Saif-Alyousfi (2020).

Operational Costs on Operating Income (OC) is a ratio used to measure a bank's ability to measure the level of efficiency in its operating activities (Muliawati & Khoiruddin, 2015). A low OC ratio indicates a high level of bank efficiency, so that it can increase more profits (Coccorese & Girardone, 2020). The normal amount of OC based on Bank Indonesia regulations is between 94%-96% (Juwita et al., 2018).

The OC ratio at BUSN listed on the IDX in 2016-2017 decreased, while the ROA ratio in that year also decreased. Based on the theory, when OC increases, ROA will decrease. This shows that there is a difference between theory and reality. Setiani (2018) shows that OC has a positive effect on ROA. The results of the study contradict the research of Lukitasari & Kartika (2015) which shows that OC has a negative effect on ROA. This research is in line with the research of Juwita et al., (2018) and Saleh & Abu Afifa (2020).

Gross Domestic Product is the final result of the total value of goods and services produced by people in a country in a certain period (Sahara, 2013). A high GDP indicates that the economy in a country is in good condition.

Gross Domestic Product (GDP) in Indonesia in 2016-2017 has increased, while ROA at BUSN listed on the IDX has decreased. According to Keynes' theory, when GDP increases, ROA also increases. This shows that there is a difference between theory and reality. Research conducted by Sahara (2013), Saif-Alyousfi (2020), and Coccorese & Girardone (2020) shows that GDP has a positive effect on ROA. This research contradicts the research of Tan & Floros (2012), Mohanty & Sarkar (2020) and Elseoud et al., (2020) which state that GDP has a negative effect on ROA.

Based on the description above, there are many gap phenomena and research gaps that occur. This is the reason for researchers to re-examine the factors that affect profitability (ROA) such as CAR, LDR, LTA, SRR, NPL, OC and GDP in the banking sub-sector listed on the IDX for the period 2016-2019.

According to Gumanti (2009) the signal theory reveals that the internal parties of the company generally have more information about the condition and prospects of the company in the future compared to external parties. This condition is referred to as information inequality or information asymmetry where one party has more information while the other does not. One way to reduce theoretical asymmetry is to provide positive and reliable financial information to outsiders so as to reduce uncertainty about the company's prospects in the future (Nuswandari, 2009).

Keynes theory states that saving is strongly influenced by the level of people's income, not determined by interest rates (Sahara, 2013). According to Keynes, income is the main factor to determine the amount of household saving and domestic saving. Countries with high incomes show that the percentage of income used for saving is getting higher (Boediono, 2014).

An increasing Capital Adequacy Ratio (CAR) indicates a higher bank profit due to better financial performance (Putrianingsih & Yulianto, 2016). This is in accordance with the concept of signaling theory which states that positive information emerging from the company will increase trust for external parties (Sahbandi, 2019). This statement is strenghtened by the research of (Juwita et al., 2018) which shows that an increase in CAR can increase the ability of bank capital to guard against possible risks. CAR has a positive effect on ROA in line with the research of Fidanoski et al.(2018).

H1 : CAR has a positive effect on rentability (ROA)

The increasing Loan to Deposit Ratio (LDR) indicates that more loans are being disbursed by banks. If the bank is able to provide maximum credit and maintain the LDR level at the specified limit, the profitability obtained will be maximized (Lukitasari & Kartika, 2015). ROA that has increased due to the increase in LDR is a good signal that will be received by debtors and investors. This is supported by research conducted by Bougatef (2017) and Juwita et al. (2018).

H2 : LDR has a positive effect on rentability (ROA)

The increase in Liquid Assets To Total Assets (LTA) reflects the low level of fund turnover, which indicates that the bank is not efficient in carrying out its operational activities, so that the profit earned by the bank will decrease (Sabrina & Muharam, 2015). The use of signal theory provides information to external parties that a low LTA will increase the bank's ROA. This statement is supported by the research of Sabrina and Muharam (2015) where the higher the liquid assets in the bank, the bank will lose the opportunity to increase the profitability of managing its funds. LTA has a negative effect on ROA in line with

research conducted by Saleh & Abu Afifa (2020).
H3 : LTA has a negative effect on rentability (ROA)

Strict regulations related to the Statutory Reserves policy are often a pressure for banks. The increasing statutory reserve requirement indicates that the amount of funds available to banks for lending will decrease, and so otherwise. If the percentage of the SRR ratio is small, then the credit disbursed by the bank will be even greater. According to the concept of signaling theory, it means that a low reserve requirement is a good signal for external parties, especially debtors. This is supported by research by Dipura and Hartomo (2016) and Wahyuningsih (2017) which state that the reserve requirement has a negative effect on ROA.
H4 : SRR has a negative effect on rentability (ROA)

An increase in Non Performing Loans (NPLs) indicates that banks have a greater risk burden due to non-payment of loans by customers. The concept of signaling theory states that the existence of (good news) from the company will have a good effect on outside parties or the market. The low NPL figure illustrates the low non-performing loans in banks, which in turn will increase the interest of external parties, especially investors. This statement is reinforced by the research of Sabrina & Muharam (2015), Andriyani & Musdholifah (2017), Pepur & Tripovic (2017), serta Saif-Alyousfi (2020).
H5 : NPL has a negative effect on rentability (ROA)

In Lukitasari & Kartika (2015) research which examines the effect of Operational Costs on ROA, it shows that the higher the OC ratio will have an impact on decreasing the income received by the bank, so that the bank's ROA will also decrease. The use of signaling theory provides information to outsiders that the lower the OC ratio, the higher the ROA of the bank. This theory is supported by research by (Juwita et al.(2018) and Saleh & Abu Afifa (2020) which state that OC has a negative effect on ROA.
H6 : OC has a negative effect on rentability (ROA)

Economic growth in a country will increase lending to banks, which can then increase opportunities for banks to earn more profits (Aluko et al., 2019). This statement is in accordance with Keynes's theory which explains that the higher the income in a country, the higher the savings made by the household sector. This theory is supported by research by Saif-Alyousfi (2020) which tested banks in 47 countries, stating that GDP has a positive effect on ROA. The results of the study are in line with research conducted by Sahara (2013) and Coccorese & Girardone (2020).
H7 : GDP has a positive effect on rentability (ROA)

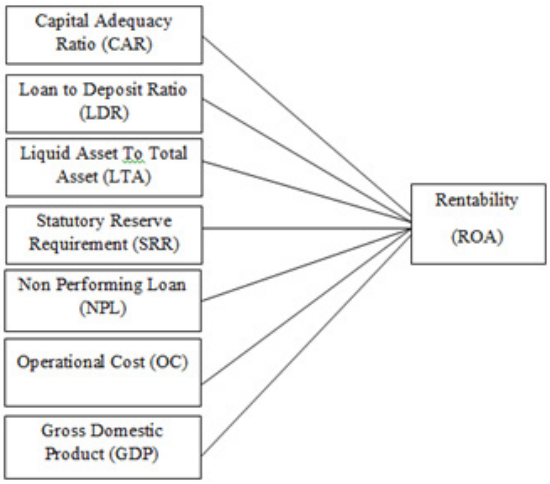

Figure 1. Research Model

METHOD

In this study using a quantitative approach and using secondary data. This study uses the documentation method, namely the method of collecting data related to research variables sourced from the financial statements of the banking sub-sector listed on the Indonesia Stock Exchange (IDX) period 2016-2019 through the official website www.idx.co.id and www. bps.go.id.

The population used in this study is the banking sub-sector listed on the Indonesia Stock Exchange (IDX) period 2016-2019 as many as 45 companies. The sampling technique used in this research is purposive sampling method, which is based on certain criteria. The sample obtained are 27 companies.

The data analysis technique used is descriptive statistics using multiple linear regression analysis techniques. The classical assumption test used is the normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test. Hypothesis testing in this study used the regression coefficient of determination (R^2) and partial regression test (t-test).

The variables used in this study consisted of one dependent variable and seven independent variable. The dependent variable used is rentability which is proxied using the ratio of Return On Assets (ROA). ROA ratio is used to measure the company's ability to generate overall profits (Dendawijaya, 2005). The formula used to calculate ROA is as follows (SE OJK No 14/SEOJK.03/2017):

ROA= (Profit before tax)/(Average total assets) x 100%

CAR is a ratio that shows how much of a bank's assets contain risks that are financed from their own capital, in addition to getting funds from sources outside the bank (Dendawijaya, 2005). The formula used to calculate CAR is as follows (Dendawijaya, 2005):

CAR = Capital/(Risk weighted assets) x 100%

Loan to Deposit Ratio (LDR) is used to measure the extent to which the bank's ability to repay the withdrawal of funds by customers and credit as a source of bank liquidity (Dendawijaya, 2005). The LDR calculation formula is as follows (SE BI No.6/23/DPNP dated 31 May 2004):

LDR = (Total loan)/(Customers deposit) x 100%

Liquid to Total Assets (LTA) is a ratio used to measure the amount of liquid assets in the company from the total assets owned (Nugraheni & Alam, 2014). The LTA calculation formula is as follows (Nugraheni & Alam, 2014):

LTA=(Liquid assets)/(Total assets) x 100%

Statutory Reserves Requirement (SRR) is the minimum amount of funds that must be maintained in the form of demand deposits by each bank with the provisions set by Bank Indonesia (Dendawijaya, 2005). The formula used to calculate SRR is as follows (Regulation BI Number:10/19/PBI/2008) :

SRR=(Current Account)/(Customers deposit) x 100%

Non-Performing Loan (NPL) is a ratio used to measure the ability of banking management to overcome bad loans due to customers unable to pay their obligations (Dipura & Hartomo, 2016).

The NPL calculation formula is as follows (SE OJK No 14/SEOJK.03/2017):

NPL=(Loan loss)/(Total loan) x 100%

Operational Cost (OC) is the ratio used to measure the bank's ability and level of efficiency of the bank in carrying out its operational activities (Dendawijaya, 2005). The OC calculation formula is as follows (SE OJK No 14/SEOJK.03/2017):

OC=(Overhead cost)/(Total assets) x 100%

Gross Domestic Product (GDP) is the total value of goods and services produced by a country using production factors owned by residents/companies from other countries (Sukirno, 2003). The formula used to calculate GDP is as follows (Sukirno, 2004) :

GDPt = (GDPt-GDPt-1)/(GDPt-1) x 100%

RESULT AND DISCUSSION

Descriptive statistical tests are used to provide an overview of the data on profitability (ROA), Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Liquid Assets to Total Assets (LTA), Statutory Reserves Requirement (SRR), Non Performing Loans (NPL), Operating Costs (OC), and Gross Domestic Product (GDP).

To choose the best regression model, it can be done by testing the Chow test, Hausman test, and the Langrange multiplier test.

Table 2. Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.223543	(26.74)	0.0000
Cross-section Chi-square	98.263697	26	0.0000

From the results of the Chow test shown in Table 2, it can be obtained that the significant probability is 0.0000 < 0.05. Based on this value,

Table 1. Result of Descriptive Statistics

	ROA	CAR	LDR	LTA	GWM	NPL	BOPO	GDP
Mean	1.242	4.706	9.352	5.095	2.627	1.686	9.098	2.250
Median	1.305	4.620	9.390	5.110	2.575	1.670	9.140	2.245
Maximum	2.000	8.150	12.04	7.150	3.460	2.920	10.93	2.270
Minimum	0.300	3.240	7.110	3.440	2.130	0.850	7.630	2.240
Std. Dev.	0.432	0.715	0.780	0.735	0.187	0.429	0.592	0.012
Observations	108	108	108	108	108	108	108	108

it can be concluded that the correct model between the comment effect model and the fixed effect model is the fixed effect model.

Table 3. Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	7	1.0000

From the results of the Hausman test shown in table 3, it can be obtained a probability value of 1.0000> 0.05. Based on this value, it can be concluded that the random effect model is more than the fixed effect model.

Table 4. Langrange Multiplier

Test Hypothesis			
	Cross-section	Time	Both
Breusch-Pagan	20.38201 (0.0000)	6.555365 (0.0105)	26.93737 (0.0000)

From the results of the Langrange multiplier test, it is shown that the probability value of both of food breusch is 0.0000 < 0.05. Based on these results, it can be concluded that the random effect model is better than the common effect model.

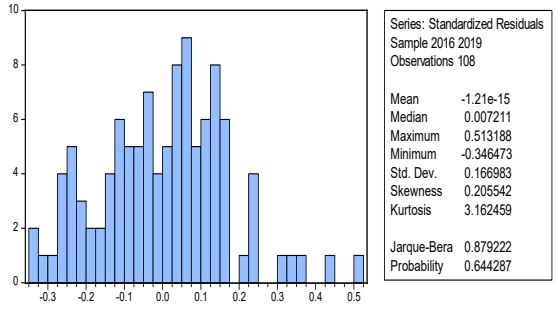

Figure 2. Normality Test Results After Transformation

Figure 2 shows that the Jerque–Bera probability value is 0.644287 > 0.05, meaning that the residuals are normally distributed and the assumption of normality is met.

Table 5. Multicolinearity Test

	CAR	LDR	LTA	SRR	NPL	OC	GDP
CAR	1	-0.17	0.48	0.15	-0.24	-0.13	0.05
LDR	-0.17	1	-0.64	-0.47	-0.14	-0.22	0.02
LTA	0.48	-0.64	1	0.23	-0.00	-0.01	0.05
SRR	0.15	-0.47	0.23	1	0.08	0.15	0.06
NPL	-0.24	-0.14	-0.00	0.08	1	0.45	-0.01
OC	-0.13	-0.22	-0.01	0.15	0.45	1	-0.09
GDP	0.05	0.02	0.05	0.06	-0.01	-0.10	1

Based on table 5, it can be seen that the correlation between independent variables has a correlation value of < 0.90, so it can be concluded that there is no multicollinearity between independent variables.

Table 6. Coreection Result of Autocorrelation Test

Weighted Statistics	
Mean dependent var	0.784310
S.D. dependent var	0.325838
Sum squared resid	1.236873
Durbin-Watson stat	1.917873

Table 6 shows the Durbin-Watson value of 1.917873 > the upper limit (du = 1.8261) and < 4-du (2.3988). Based on these results, it can be concluded that there is no autocorrelation problem in the regression model of this study.

Table 7. Heteroscedasticity Test

Variable	Coefficient	Prob.
C	-0.183408	0.8942
CAR	-0.006597	0.7231
LDR	0.043139	0.0328
LTA	0.030335	0.1318
SRR	-0.006866	0.8962
NPL	0.013052	0.6394
OC	0.079709	0.0015
GDP	-0.417788	0.4788

The probability values of the independent variables LDR and OC are 0.0328 and 0.0015 < 0.05, respectively, which means that there is a heteroscedasticity problem. According to Widarjono (2009), WLS is a special form of Generalized Least Square (GLS) which is able to eliminate the problem of heteroscedasticity.

Table 8. Regression Test with Random Effect Model

Variable	Coefficient	Prob.
C	11.65416	0.0000
CAR	0.008710	0.7851
LDR	0.020167	0.5557
LTA	0.006992	0.8379
SRR	-0.006139	0.9454
NPL	-0.105784	0.0284
OC	-0.636223	0.0000
GDP	-2.086687	0.0390

Table 9. Coefficient Determination Test

R-squared	0.781453
Adjusted R-squared	0.766155

From table 9, it can be seen that the results of the coefficient of determination test are shown from the Adjusted R-squared value of 0.766155 or 76.62%. This means that the independent variable can explain the dependent variable by 76.62%, while the remaining 23.38% is explained by other variables outside the model.

Table 10. F Statistic Test

F-statistic	51.08117
Prob(F-statistic)	0.000000

Based on the table above, it can be seen that the probability value of the F-statistic test or sig F is 0.000000 < 0.05, then Ho is rejected and Ha is accepted. This means that the independent variables (CAR, LDR, LTA, SRR, NPL, OC, and GDP) simultaneously affect ROA.

Tabel 11. Hypothesis Test

Variable	Coefficient	Prob.
C	-0.183408	0.8942
CAR	-0.006597	0.7231
LDR	0.043139	0.0328
LTA	0.030335	0.1318
SRR	-0.006866	0.8962
NPL	0.013052	0.6394
OC	0.079709	0.0015
GDP	-0.417788	0.4788

From the results of the hypothesis test above, it shows that the probability values of CAR, LDR, LTA, and SRR are 0.7851, 0.5557, 0.8379, 0.9454 > 0.05, meaning that these variables have no significant effect on rentability (ROA). While the probability values of NPL, OC and GDP are 0.0284, 0.0000, 0.0390 < 0.05, which means that these variables have a significant effect on rentability (ROA).

The Capital Adequacy Ratio (CAR) variable shows a coefficient value of 0.008710 with a probability value of 0.7851 > 0.05. So it can be said that the independent variable CAR has no significant positive effect on the dependent variable ROA. This result is not in line with the first hypothesis formulated with CAR has a positive effect on rentability (ROA), so that the first hypothesis is rejected. The results of the study stated that the CAR had a positive and insignificant effect. Where the higher the CAR does not guarantee the company's profit will be higher. The results of the study are not significant due to the lack of management of their own capital, while most banks have a CAR value exceeding 8%. In other words, the company is less than optimal in managing large capital so that the profits obtained are not too significant according to the increase in capital (Hapsari & Prasetiono, 2011).

Based on signaling theory, that a high CAR does not guarantee that the company has a high ROA. This information can be used as a signal to parties outside the company. This is supported by research conducted by Lukitasari and Kartika (2015), Antoni & Nasri (2015) and Wahyuningsih dkk (2017).

Loan to Deposit Ratio (LDR) variable shows a coefficient value of 0.020167 with a probability value of 0.5557 > 0.05. So it can be said that the independent variable LDR has a positive and insignificant effect on the dependent variable ROA. This result is not in line with the second hypothesis which was formulated with LDR having a positive effect on rentability (ROA), so that the second hypothesis is rejected.

The results of the study stated that the LDR had a significant positive effect, it means that in this study the higher the LDR in a bank is not a measure of the success of the bank in obtaining high profits. The insignificant LDR to ROA is due to the fluctuating LDR ratio data for each bank listed on the IDX. In addition, LDR is not significant to ROA, it can also be due to the large amount of credit disbursement without being supported by good credit quality.

The increase in LDR in a bank will be information for external parties, where a high ROA does not guarantee that the bank has a high ROA as well. The results of this study are in line with research conducted by Masdupi & Defri (2012), Pramudyani & Hartono (2018) and Taibah and Faisal (2020). Where LDR has no significant positive effect on ROA.

Liquid to Total Asset (LTA) variable shows a coefficient value of 0.006992 with a probability value of 0.8379 > 0.05. So it can be said that the LTA independent variable has a positive and insignificant effect on the dependent variable ROA. This result is not in line with the third hypothesis formulated with LTA has a negative effect on profitability (ROA), so the third hypothesis is rejected.

The results of the study stated that LTA had no significant positive effect on ROA. These results indicate that a high LTA ratio does not guarantee a low ROA in banking companies because the size of the cash held by banks depends

on the company's decisions, whether cash is used to pay debts, maintain liquidity, pay interest, and so on. Therefore, the high and low LTA does not affect ROA. Increasing or decreasing LTA in a bank makes information for parties outside the company, which will not affect the ROA of the banking company. The results of this study are in accordance with research conducted by Andriyani & Musdholifah (2017) and Alfadli and Rjoub (2019).

The Statutory Reserves (SRR) variable shows a coefficient value of -0.006139 with a probability value of 0.9454 > 0.05. So that it can be said that the GWM independent variable has an insignificant negative effect on the dependent variable ROA. This result is not in line with the fourth hypothesis which is formulated with the reserve requirement which has a negative effect on rentability (ROA), so the third hypothesis is rejected.

The results of the study stated that the Statutory Reserves had an insignificant negative effect on ROA, this means that if the reserve requirement increases, it does not guarantee that the bank's profit will decrease. This could be due to the existence of BI regulations regarding the provisions on minimum funds, which indicates that the bank can manage its liquidity well, which is indicated by the fulfillment of obligations from each withdrawal by the public. Such conditions will increase public confidence by feeling safe that their deposits can be withdrawn at any time. Thus, the total deposits collected by banks will increase.

According to the concept of signaling theory, these results can be used as information for external parties, where a high SRR does not guarantee a decrease in ROA, because the SRR on ROA does not have a significant effect. The results of the study are in accordance with research conducted by Aini dkk (2014).

The Non Performing Loan (NPL) variable shows a coefficient value of -0.105784 with a probability value of 0.0284 <0.05. So it can be said that the independent variable NPL has a significant negative effect on the dependent variable ROA. This result is in line with the fifth hypothesis formulated with NPL having a negative effect on rentability (ROA), so the fifth hypothesis is accepted.

The results of the study stated that NPL had a significant negative effect on ROA. The negative direction of the coefficient explains that the increase in NPL will reduce the profit of banking companies. This can be due to the fact that the higher the NPL reflects the worse the quality of the loans disbursed and can lead to a larger number of bad loans. The high level of NPL requires banks to bear the risk of loss in their operational activities, so that it can affect the decline in bank income.

The concept of signaling theory states that the existence of (good news) from the company will have a good effect on parties outside the company. The low NPL figure illustrates the low bad loans in banks, which in turn will increase the interest of external parties, especially investors. The results are consistent with research conducted by Andriyani and Musdholifah (2017), Pepur and Tripovic (2017) and Saif-Alyousfi (2020).

Variable Operating Costs on Operating Income (BOPO) shows a coefficient value of -0.636223 with a probability value of 0.0000 < 0.05. So it can be said that the independent variable OC has a significant negative effect on the dependent variable ROA. This result is in line with the sixth hypothesis formulated with OC having a negative effect on rentability (ROA), so that the sixth hypothesis is accepted.

The results of the study stated that BOPO had a significant negative effect on ROA. This can be due to any increase in operational costs, not matched by operating income at the bank, ultimately ROA will decrease. The high OC ratio indicates that the bank has not been able to run its operational activities efficiently.

The existence of information disclosure from the company can be considered as a signal for the recipient of information. As in the results of research that low OC can be used as a signal for parties outside the company, because it can increase ROA. The results of the study are in line with research conducted by Lukitasari & Kartika (2015), Juwita et al. (2018) and Saleh & Abu Afifa (2020).

The Gross Domestic Product (GDP) variable shows a coefficient value of -2.086687 with a probability value of 0.0390 < 0.05. So it can be said that the independent variable GDP has a significant negative effect on the dependent variable ROA. This result is not in line with the seventh hypothesis formulated with GDP having a positive effect on profitability, so the seventh hypothesis is rejected.

The results of the study stated that GDP had a significant negative effect on ROA. An increase in GDP will affect the increase in income received by the community. When people receive high income, it encourages people to prefer to invest their funds in this type of investment such as stocks, capital market, gold investment, and property. So that the bank's income from loan inter-

est will decrease. The results of the study are not in accordance with the concept of Keynes' theory which states that countries with high incomes show that the percentage of income used for saving is getting higher (Boediono, 2014). The results of the study are in accordance with research conducted by Tan and Floros (2012), Mohanty and Sarkar, (2020) and Elseoud et al. (2020).

CONCLUSSION AND RECCOMENDATION

This study aims to examine the effect of Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Liquid Assets to Total Assets (LTA), Statutory Reserves Requirement (SRR), Non Performing Loans (NPL), Operational Costs (OC), and Gross Domestic Product (GDP) to profitability (ROA) in banking sub-sector companies listed on the Indonesia Stock Exchange (IDX) period 2016-2019. The results showed that the variables CAR, LDR, and LTA had an insignificant positive effect on ROA, the SRR variable had an insignificant negative effect on ROA, while the NPL, OC and GDP variables had a significant negative effect on ROA.

The limitation of this research is that the researcher only uses one independent variable that comes from external factors, namely GDP. The researcher only used four years of observation in his research. Further limitations, researchers only use the dependent variable ROA in measuring bank profitability. For further research, it is expected to be able to add or replace the dependent variable such as ROE or NIM. In addition, researchers can add other external variables that can affect profitability such as inflation and exchange rates by extending the observation period.

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