



## Banking Sector Profitability During The Covid-19 Pandemic

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**Abstract**—Covid-19 has a crucial impact on various industrial sectors in Indonesia. One of the sectors affected is banking. Companies are guided to maintain maximum performance. Profitability is one indicator that reflects the company's performance. Profitability is the company's ability to earn profits during a certain period. In achieving maximum profitability, banks need to optimize the internal company that plays a role in achieving profitability. This study aims to examine the effect of Non Performing Loans (NPL), Loan to Deposit Ratio (LDR) on Return on Assets (ROA) through Net Interest Margin (NIM). The population of this research is the banking industry companies in Indonesia. The population in this study are 29 banks listed on the IDX. The method used in this study is a purposive sampling method, a sample of 24 banks listed on the Indonesia Stock Exchange was obtained. The data analysis technique used is path analysis. The findings of this study are that LDR has a significant negative effect on NIM, but a significant positive effect on ROA. NPL has a significant negative effect on NIM, and a significant negative effect on ROA. NIM was found to be able to partially mediate the effect of LDR on ROA. NIM mediates some of the NPL against ROA. The predictive ability of these three variables on ROA in this study was 22.5%, while the remaining 77.5% was influenced by other factors which were not included in the research model.

**Keywords:** banking sector; loan to deposit ratio (LDR); net interest margin (NIM); non performing loan (NPL); return on asset (ROA)

### I. INTRODUCTION

The spread of coronavirus disease 2019 (Covid-19) has an impact on various sectors that support the economy. One of the sectors affected is the banking sector. Banking is a financial intermediary institution that plays an important role in financial system stability. Even in a pandemic condition, banks are required to improve their performance optimization. Various government policies were issued to support this effort, including credit restructuring through lowering interest rates, extending terms, reducing principal arrears, reducing interest arrears, adding credit/financing facilities and converting credit/financing into temporary equity participation.. ([www.ojk.go.id](http://www.ojk.go.id)).

Profitability is the company's ability to earn profits during a certain period using capital or assets owned by the company

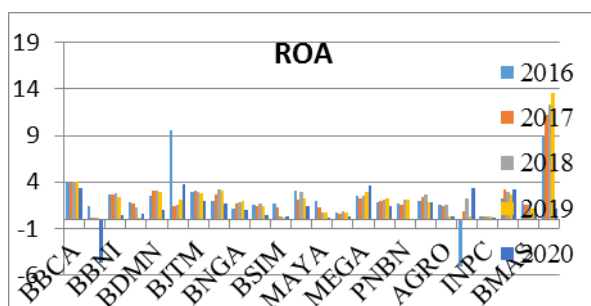
(Kasmir, 2011:196). The level of performance specifically financial performance can be seen through profitability. If a bank has continuously increased profitability it indicates that the bank has good performance (Pandia, 2012:64).

Various factors both internal and external can result in a decrease in profitability. In general, bank external factors are not easily controlled by companies (Rofiatun, 2016). These external factors include macroeconomic conditions such as inflation, interest rates, and exchange rates (Rahmayani & Anggraini, 2021). On the other hand, internal factors also affect bank profitability. The main factor affecting bank profitability is management. The management of a bank includes raising funds (DPK), capital management (CAR), general management (NIM), profitability management (BOPO), and liquidity management (LDR) which will ultimately

affect and lead to profit (or profitability) of banking companies (Masdupi & Defri, 2012).

Banking is one of the sectors affected by

the COVID-19 pandemic. Based on data from the Indonesia Stock Exchange, the achievement of ROA in the banking sector is as follows



**Figure 1.** Graph of ROA Growth in the Banking Sector on the Indonesia Stock Exchange for the 2016-2019 Period  
source: www.idx.co.id

greatly, especially in 2019 and 2020 which was the beginning of the Covid-19 pandemic in Indonesia.

Previous research by Mawardi (2015) shows that Net Interest Margin (NIM) has a significant negative effect on Return On Assets (ROA). These results differ from Herdhayinta & Supriyono (2019) and Pangestu (2017), and Lubis, et al (2017) which show that Net Interest Margin (NIM) has a significant positive effect on Return On Assets (ROA). Harun (2016) and Hidayati (2019) found that NIM has no significant effect on ROA.

Rahmawati (2015) found that NIM was not significant in mediating the effect of LDR on ROA. Meanwhile, Nurul Rahmatiah (2021), Susilawati, et al (2020), Salma and Silvia (2021), Astohar and Praptitorini (2018) found that NIM was significant in mediating the effect of LDR on ROA. Furthermore, research results conducted by Mandagie (2021) showed that NPL has a significant negative impact on ROA in the banking business while others are positive. Meanwhile, Fauzi et al.'s research results (2022) revealed that Covid-19 has a negative impact on bank profitability, but only profitability as evaluated by NIM has a statistically significant negative impact. This study demonstrates that bank size or asset size, as well as interest rate, have a significant positive effect on the profitability of Indonesian banks that are publicly listed.

Based on the research gaps found in the differences in the results of previous studies, as well as the phenomena that occur in the banking sector, this study aims to examine the determinants of the profitability of the banking sector in Indonesia during the Covid-19 pandemic.

## II. CONCEPT AND HYPOTHESIS

### Signalling Theory

Companies can provide signals to outsiders or investors through various financial policies and decisions as well as financial management that has been carried out. The signal theory explains why companies have the incentive to provide financial statement information to external parties. This incentive aims to increase investor attention to buy company shares (Ross, 1977). Positive signals can be implied by the company through the financial reports published by the company, considering that financial reports are one of the bases for investment decisions.

### Pecking Order Theory

The Pecking Order Theory is an order in seeking corporate funds which indicate that companies prefer to use internal funds to finance investments and implement them as growth opportunities. Pecking order theory states that managers prefer internal funding over external funding (Myers & Majluf, 1984).

### Profitability

Profitability shows the level of management success in managing business resources. Profitability is the company's ability to generate profits. One indicator of profitability is Return On Assets (ROA)

ROA is a profitability ratio that shows the comparison between profit before tax and the total assets of the bank. This ratio describes the company's ability to generate profits from every one rupiah of assets used, with this ratio we can assess whether the company is efficient in utilizing its assets in its operational activities Ryan (2016: 112). The best standard of ROA according to Bank Indonesia Regulation No. 6/9/PBI/2004 is 1.5%. This

variable has a weight value of 15%. ROA is used to measure a company's effectiveness in generating profits by utilizing its assets Wisman (2016). In other words, this ratio is used to measure the ability of bank management to gain overall profits. The greater the ROA of a bank, the greater the level of profit achieved by the bank and the better the position of the bank in terms of asset use. Rahma (2016).

### Banking Financial Ratios

#### *Net Interest Margin*

Net Interest Margin (NIM) is used as an independent variable that affects ROA based on its relationship with the bank's risk level which leads to bank profitability (ROA). The NIM ratio reflects market risk arising from changing market conditions, which can be detrimental to the bank Dendawijaya (2009:122). The NIM ratio is also used to measure the ability of bank management to generate interest income from loans, considering that a bank's operating income is highly dependent on the difference in interest from loans disbursed. (Prmono, 2017). The greater the NIM, the greater the interest income from productive assets managed by the bank, so that the bank's profitability (ROA) will increase (Astohar, *et al* 2019).

NIM is measured by the comparison between net interest income and productive assets. The greater the NIM ratio, the greater the interest income on productive assets managed by the bank, which shows that the bank's financial performance is getting better (Riyadi, 2014:140). Standar terbaik *Net Interest Margin* (NIM) dari rata-rata perbankan adalah 5% (www.bi.go.id)

#### *Loan-to-Deposit Ratio (LDR)*

The Loan to Deposit Ratio is a measure of a bank's ability to refinance withdrawals made by depositors by relying on loans as a source of liquidity (Dendawijaya, 2009:166). LDR is also a measure of the liquidity of funds placed in the form of credit originating from funds collected by banks (especially public funds). The more funds channeled in the form of credit, the LDR will increase so that the ROA obtained from the difference in interest by a bank will also increase. According to Bank Indonesia regulations, PBI No. 17/11/PBI/2015 Bank Indonesia (BI) has set a limit on the ideal banking loan-to-deposit ratio (LDR) of 75% -105%.

#### *Non-Performing Loan (NPL)*

Non-Performing Loan (NPL) is a credit risk that shows the ratio of non-performing loans to total loans. Non-performing loans are loans with substandard, doubtful and bad quality Fahmi (2014: 101). The high NPL will be able to increase costs, both the cost of propping up productive assets and other costs so that in the end the bank's capital also erodes. The greater the NPL, the higher the risk premium which will have an impact on high lending rates. Credit interest rates that are too high will reduce the public's demand for credit (Fitria & Sari, 2012). The low demand for credit will also lead to low LDR levels and can reduce the level of bank profitability as a result of the bank's intermediation function not working optimally because it reduces the bank's fund turnover thereby reducing the opportunity for banks to earn profits. According to Bank Indonesia Regulation No. 15/2/PBI/2013 the maximum Non-Performing Loan (NPL) ratio set by Bank Indonesia is 5%. if the bank exceeds the limit given then the bank is not healthy.

#### *Loan To Deposit Ratio (LDR) To Net Interest Margin (NIM)*

LDR describes the amount of credit extended by the bank. An increase in LDR indicates an increase in credit that can be disbursed by banks, so that this increase has an effect on an increase in NIM, due to higher receipts of interest income from loans disbursed. Research conducted by Nugrahaning & Wahyudi (2016), Iskandar (2017), Purba & Triaryati (2018), Astohar and Praptitorini (2018) concluded that LDR has a significant positive effect on NIM. This means that an increase in LDR will have an impact on an increase in NIM, because there is an increase in bank interest income obtained from disbursed loans, so the first hypothesis (H1) in this study is formulated as follows:

H1: Loan to Deposit Ratio (LDR) has a significant positive effect on Net Interest Margin (NIM)

#### *Non-Performing Loan (NPL) To Net Interest Margin (NIM)*

The NPL ratio shows the level of non-performing loans owned by a bank, if the NPL level owned by a bank is high, then this condition will reduce the level of the bank's interest income (Nugrahaning & Wahyudi, 2016).

Research conducted by (Purba & Triaryati, 2018) and Iskandar (2017) shows that NPL has a negative and significant effect

on NIM. This indicates that an increase in NPLs can reduce a bank's net interest income, so this study proposes the second hypothesis (H2) as follows:

H2: Non-Performing Loan (NPL) has a negative and significant effect on Net Interest Margin (NIM).

#### *Loan to Deposit Ratio (LDR) to Profitability (ROA)*

Liquidity risk is a risk that arises as a result of banks experiencing difficulties or being unable to fulfill their short-term obligations (Hanafi, 2009:241). In this study, liquidity risk is proxied by the LDR ratio which compares the total credit disbursed to the total NIM collected by the bank (Riyadi, 2014:165). If the amount of credit disbursed by the bank increases, the profitability generated by the bank will also increase.

Research conducted by Satyarini (2020), Suarjaya (2018), Herdhayinta & Supriyono (2019) and found that LDR has a significant positive effect on ROA. Research with different results was conducted by Sutrisno (2018) that LDR has no effect on ROA. Research conducted by Hakim and Sugianto (2018) found that LDR did not have a significant positive effect on ROA. Pinasti and Mustikawati (2018) found that LDR has a negative but not significant effect on ROA.

Liquidity management is a fairly complex problem in bank operations, this is because most of the funds managed by banks are funds from the public which are short-term in nature and can be withdrawn at any time (Linda (2018). The Loan To Deposit Ratio (LDR) is a liquidity ratio used to show a comparison between the number of funds disbursed in the form of credit and the number of funds raised from the public. The higher the funds disbursed in the form of credit, the higher the ability of a bank to obtain profit or bank profitability (ROA) will increase Purwanti (2018). Banks that are categorized as having good liquidity will be able to increase public trust so that profitability will increase.

Research conducted by Herdhayinta & Supriyono (2019), Kusmayadi (2018), Patni & Darma (2017) found that LDR had a significant positive effect on ROA. Based on this description, the third hypothesis (H3) in this study is formulated as follows:

H3: Loan Deposit Ratio (LDR) has a positive and significant effect on Return on Assets (ROA).

#### *Non-Performing Loan (NPL) to profitability (ROA)*

NPL can be known by calculating the percentage of non-performing loans to total loans Natalia (2017). The lower the NPL, the higher the profitability that will be generated by the bank. Conversely, if the NPL in the bank is high, the bank will incur losses because the interest income earned from loans will be low, which in turn will have an impact on decreasing profitability of the bank (Dendawijaya, 2009).

Credit risk is one of the risks most often faced by a bank related to its activities in collecting funds from the public and channelling them back in the form of credit or investment. This credit risk arises due to the client's failure to pay its obligations or also known as problem credit. A bank's credit risk can be measured by a ratio, namely Non-Performing Loans (NPL). NPL is the ratio of credit risk which shows the ratio between the number of non-performing loans to total credit. The lower the NPL, the higher the profitability generated by the bank. Conversely, if the NPL in the bank is high, the bank will incur losses due to low-interest income from loans, which will ultimately have an impact on reducing the bank's profitability.

Previous research conducted by Sedana (2018), Sulibendika (2016), Patni & Darma (2017), Cristina & Artini (2018), Zeuspita & Yadnya (2019), Putri & Mustanda (2019), Patini and Darma (2017), resulted that the NPL negative and significant effect on ROA. Based on this description, the hypothesis can be formulated as follows :

H4 : NPL has a negative and significant effect on Profitability.

#### *Net Interest Margin (NIM) to Profitabilitas (ROA)*

Net Interest Margin NIM measures the ability of bank management to generate income from interest by looking at bank performance in extending credit, considering that bank operating income is very dependent on the difference in interest from loans disbursed (Mahardian, 2018). The greater the NIM achieved by a bank, the greater the interest income on productive assets managed by the bank concerned, so that bank profits (ROA) will increase.

NIM reflects market risk arising from changing market conditions, which can be detrimental to the bank. NIM is used to measure the ability of bank management to generate income from interest by looking at

the bank's performance in extending credit, considering that a bank's operating income is highly dependent on the difference in interest from loans disbursed (Brigham & Houston, 2019).

Semakin besar NIM yang dicapai oleh suatu bank maka akan meningkatkan pendapatan bunga atas aktiva produktif yang dikelola oleh bank yang bersangkutan, sehingga laba bank (ROA) akan meningkat (Harun, 2016). Hasil penelitian sebelumnya menemukan bahwa NIM berpengaruh positif signifikan terhadap ROA antara lain penelitian yang dilakukan oleh Eng (2013), Dewi et al. (2015), Ali & Triyuliawan (2017), Patni & Darma (2017), Yuhasril (2019), Pangestuti (2017), Pinasti dan Mustikawati (2017), Pertiwi & Susanto (2019), diketahui bahwa variabel NIM berpengaruh positif dan signifikan terhadap ROA. Berdasarkan hal tersebut maka dapat dirumuskan hipotesis sebagai berikut

The greater the NIM achieved by a bank, it will increase the interest income on productive assets managed by the bank concerned, so that the bank's profit (ROA) will increase (Harun, 2016). The results of previous studies found that NIM had a significant positive effect on ROA, including research conducted by Eng (2013), Dewi et al. (2015), Ali & Triyuliawan (2017), Patni & Darma (2017), Yuhasril (2019), Pangestuti (2017), Pinasti and Mustikawati (2017), Pertiwi & Susanto (2019), it is known that the NIM variable has a positive and significant effect on ROA. Based on this, the hypothesis can be formulated as follows:

H5 : Net Interest Margin has an effect (NIM) has a significant positive effect on profitability (ROA)

#### **Loan to Deposit Ratio (LDR) to Return on Assets (ROA) through Net Interest Margin (NIM)**

Liquidity shows the company's ability to meet its financial obligations that must be met immediately, or the company's ability to meet financial obligations when billed (Satriana, 2017: 18). If the liquidity of a bank in terms of providing the funds needed by the community is very good, it will increase the ROA of a company. If a company's ROA increases, the bank's interest income (NIM) is large.

Previous research was conducted by Susilawati & Nurulrahmatiah (2021), Susilawati, et al (2020), Astohar and Praptitorini (2018). shows that NIM S is significantly able to mediate the effect of LDR

on ROA. That is, good bank liquidity can have an impact on increasing ROA, if the interest income is earned by a large bank. Based on this information, this study proposes the sixth hypothesis (H6) as follows:

H6: Loan Deposit Ratio (LDR) has a significant effect on Return on Assets (ROA) through Net Interest Margin (NIM)

#### **Non-Performing Loan (NPL) to Return on Asset (ROA) through Net Interest Margin (NIM)**

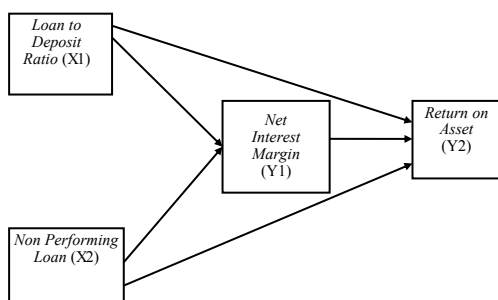
The NPL of a bank is the ratio of credit risk which shows the ratio between the number of non-performing loans and total loans. A bank's NPL level that is too high can reduce the probability that a bank will make a profit. If a bank's NPL is high, it will be difficult for the bank to earn profits for the company and interest income will decrease. Previous research conducted by Wibisono and Wahyuni (2017) states that NIM can mediate the effect of NPL on ROA. That is, a high NPL causes a large number of non-performing loans, so that interest income decreases and also affects the profit generated which also decreases. From this description, this study proposes the seventh hypothesis (H7) with the following formulation:

H7: Non-Performing Loan (NPL) has a significant negative effect on Return on Assets (ROA) through Net Interest Margin (NIM)

### **III. METHOD**

This research is explanatory research that aims to examine the influence between variables. In particular, this research is to test and analyze the determination of the profitability of the banking sector in Indonesia. The data used in this study is secondary data in the form of financial data contained in audited banking financial reports. This data is obtained from [www.idx.co.id](http://www.idx.co.id). The population in this study used are 29 commercial banks listed on the Indonesia Stock Exchange and operating in Indonesia for the 2016-2020 period. Sampling used a purposive sampling method with the criteria of banks publishing audited financial statements during the study period so that 24 banks were obtained as samples of this study. The data analysis technique used in this study is path analysis.

The concept of this research is as follows,



**Figure 2.** Research concept framework  
Source: previous research results

#### IV. RESULT AND DISCUSSION

##### **The Effect of Loan To Deposit Ratio (LDR) on Net Interest Margin (NIM) in the Banking Sector on the Indonesia Stock Exchange**

The results of the analysis show that the LDR variable has a negative effect of -0.096 on NIM and this effect is significant at a significant level of 0.05 with a sig = 0.013 or less than 0.05, then  $H_0$  is rejected and  $H_1$  is accepted. This means that the loan-to-deposit ratio (LDR) has a negative effect on the net interest margin of banking companies on the Indonesia Stock Exchange for the 2016-2020 period.

LDR is a liquidity ratio that describes a bank's ability to channel funds in the form of credit and also the bank's ability to provide funds needed by customers. From the research results obtained, LDR has a negative effect on NIM, indicating that the bank's performance is declining. Based on the signalling theory, this information gives a negative signal to investors to look for other investment alternatives.

The results of this study are in line with the research of Rahmadhani and Nurlita (2019) which found that the Loan to Deposit Ratio has a negative and significant effect on Net Interest Margin.

##### **The Effect of Non-Performing Loans (NPL) on Net Interest Margin (NIM) in the Banking Sector on the Indonesia Stock Exchange**

From the results of the analysis, the NPL variable has a negative effect of -0.402 on NIM and this effect is significant at a significant level of 0.05 with a sig = 0.000 or less than 0.05, then  $H_0$  is rejected and  $H_1$  is accepted. This means that non-performing loans (NPL) have a negative effect on the net interest margin of banking companies on the Indonesia Stock Exchange for the 2016-2020

period.

The NPL ratio shows the level of non-performing loans owned by a bank, if the NPL level owned by a bank is high, then this condition will reduce the level of the bank interest income (Nugrahaning & Wahyudi, 2016). Based on the signaling theory, potential investors can determine investment decisions through the value of a bank's NPL. Where this information is a signal for investors. If the bad credit experience is very high, it can affect the interest of investors who will invest, besides that the bank will have difficulty obtaining funds from external parties if they want to finance further bank operations.

This research is in line with Purba & Triaryati (2018), Iskandar (2017) showing that NPL has a negative and significant effect on NIM. This indicates that an increase in NPLs can reduce a bank's net interest income.

##### **Effect of Loan to Deposit Ratio (LDR) on Return on Assets (ROA) in the Banking Sector on the Indonesia Stock Exchange**

The results of the analysis show that the LDR variable has a positive effect of 0.044 on ROA and this effect is significant at a significant level of 0.05 with a sig = 0.000 or less than 0.05, then  $H_0$  is rejected and  $H_1$  is accepted. This means that LDR has a positive effect on ROA in banking companies on the Indonesia Stock Exchange for the 2016-2020 period.

Liquidity management is a fairly complex problem in bank operations, this is because most of the funds managed by banks are funds from the public which are short-term in nature and can be withdrawn at any time Linda (2018). The Loan To Deposit Ratio (LDR) is a liquidity ratio used to show a comparison between the number of funds disbursed in the form of credit and the number of funds raised by the public. The higher the funds disbursed in the form of credit, the higher the ability of a bank to obtain profit or bank profitability (ROA) will increase Purwanti (2018). Banks that are categorized as having good liquidity will be able to increase public trust so that profitability will increase. Signalling Theory can provide a signal if the bank's performance is very good because it gets profits from the number of funds channelled in the form of credit.

This research is in line with Satyarini (2020), Suarjaya (2018), Herdhayinta & Supriyono (2019), Kusmayadi (2018), Patni & Darma (2017) obtained the result that LDR has a significant positive effect on ROA.

### **The Influence of Non-Performing Loans (NPL) on Return On Assets (ROA) in the Banking Sector on the Indonesia Stock Exchange**

The results of the analysis found that the NPL variable had a negative effect of -0.413 on ROA and this effect was significant at a significant level of 0.05 with a sig = 0.043 or less than 0.05, then  $H_0$  was rejected and  $H_1$  was accepted. This means that non-performing loans (NPL) have a negative effect on the net interest margin of banking companies on the Indonesia Stock Exchange for the 2016-2020 period.

Credit risk is one of the risks most often faced by a bank related to its activities in collecting funds from the public and channelling them back in the form of credit or investment. This credit risk arises due to the client's failure to pay its obligations or also known as problem credit. A bank's credit risk can be measured by a ratio, namely Non-Performing Loans (NPL). NPL is the ratio of credit risk which shows the ratio between the number of non-performing loans to total credit. The lower the NPL, the higher the profitability generated by the bank. Conversely, if the NPL in the bank is high, then the bank will suffer losses due to low-interest income from loans, which will ultimately have an impact on reducing the bank's profitability, and also through the grand theory that is used can provide information to investors who want to invest. investment. With the results obtained, investors will choose to continue investing or not, it will be difficult for the bank to finance its operational activities with funds from external parties.

The results of this study are consistent with Sedana (2018), Sulibendika (2016), Patni & Darma (2017), Cristina & Artini (2018), Zeuspita & Yadnya (2019), Putri & Mustanda (2019), Patini and Darma (2017), obtained the result that NPL has a negative and significant effect on ROA.

### **Effect of Net Interest Margin (NIM) on Return on Assets (ROA) in the Banking Sector on the Indonesia Stock Exchange**

Based on the results of the NIM analysis, it has a positive effect of 0.170 on ROA and this effect is significant at a significant level of 0.05 with a sig = 0.047 or less than 0.05, then  $H_0$  is rejected and  $H_1$  is accepted. This means that NIM has a positive effect on ROA in banking companies on the Indonesia Stock Exchange for the 2016-2020 period.

NIM reflects market risk arising from

changing market conditions, where which can be detrimental to the bank Purwanti (2016). NIM is used to measure the ability of bank management to generate income from interest by looking at the bank's performance in extending credit, considering that the bank's operating income is very dependent on the difference in interest from loans disbursed by Munjayanah (2020).

The greater the NIM achieved by a bank, it will increase the interest income on productive assets managed by the bank concerned, so that the bank's profit (ROA) will increase (Harun, 2016). The results of this study that NIM has a positive effect on ROA means that the bank's performance is good, so the bank will very easily gain the trust of its customers so that the bank will get a lot of funds from external parties if it wants to finance the bank's operational activities.

The results of this study are consistent with Ali & Triyuliawan (2017), Patni & Darma (2017), Yuhartil (2019), Pangestuti (2017), Pinasti and Mustikawati (2017), Pertiwi & Susanto (2019), Pradnyawati and Widhiastuti (2020), that NIM variable has a positive and significant effect on ROA.

### **Effect of Loan to Deposit Ratio (LDR) on Return on Assets (ROA) through Net Interest Margin (NIM) in the Banking Sector on the Indonesia Stock Exchange**

Based on the results of the analysis, NIM partially mediates LDR to ROA, because the direct relationship between LDR and ROA is significant, so also the indirect relationship between LDR and ROA through NIM is significant. The direct coefficient value between LDR and ROA is greater, namely, 0.044 compared to the indirect relationship of  $(0.096 \times 0.170 = 0.016)$  and the total coefficient value is  $0.044 + 0.016 = 0.060$ .

Liquidity shows the company's ability to meet its financial obligations that must be fulfilled immediately, or the company's ability to meet financial obligations on time (Satriana, 2017: 18). If the liquidity of a bank in terms of providing the funds needed by the community is very good, it will increase the ROA of a company. If a company's ROA increases, the bank's interest income (NIM) is large.

Previous research by Susilawati & Nurulrahmatiah (2021), Astohar (2020). showed that NIM was significantly able to mediate the effect of LDR on ROA. This means that good bank liquidity can have an impact on increasing ROA, if the interest income earned is large.

### The Effect of Non-Performing Loans (NPL) on Return on Assets (ROA) through Net Interest Margin (NIM) in the Banking Sector on the Indonesia Stock Exchange

Based on the results of the analysis, NIM partially mediates between NPL and ROA, because the direct relationship between NPL and ROA is significant, as well as the indirect relationship between NPL and ROA through NIM is also significant. The direct coefficient value between NPL and ROA is greater, namely, 0.413 compared to the indirect relationship ( $0.402 \times 0.170 = 0.068$ ), so that the total coefficient value is  $0.413 + 0.068 = 481$

The NPL of a bank is the ratio of credit risk which shows the ratio between the number of non-performing loans and total loans. A bank's NPL level that is too high can reduce the probability that a bank will make a profit. If a bank's NPL is high, it will be difficult for the bank to earn profits for the company and interest income will decrease. Previous research by Wibisono and Wahyuni (2017) states that NIM can mediate the effect of NPL on ROA. That is, a high NPL causes a large number of non-performing loans so that interest income decreases and also affects the profit generated which also decreases.

### V. CONCLUSION

Grounded by the explanation of results above, it can be concluded that 1) LDR has a significant negative effect on NIM. LDR describes the amount of credit extended by the bank. If the credit disbursed does not look at the debtor's criteria well, there will be a lot of bad credit that can cause profits from the credit disbursed to decrease. 2) NPL has a significant negative effect on NIM. NPL shows the level of non-performing loans owned by a bank, if the NPL level owned by a bank is high, this condition will reduce the level of bank interest income. 3) LDR has a significant positive effect on ROA. LDR describes the number of funds disbursed. The higher the funds channelled in the form of credit, the higher the ability of a bank to earn profit or profitability (ROA). 4) NPL has a significant negative effect on ROA. NPL shows the level of non-performing loans owned by a bank, if the NPL level owned by a bank is high, then this condition will reduce the level of bank interest income. 5) NIM has a significant positive effect on ROA. The greater the NIM achieved by a bank, the more productive assets managed by the bank concerned, so that the bank's profit (ROA) will increase. 6) NIM was found to be

capable of being a mediating variable with the partial type of LDR mediation on ROA. 7) NIM was found to be capable of being a mediating variable with a partial type of mediation between NPL and ROA.

### REFERENCE

- Ali, M., & Triyuliawan, R. L. (2017). Pengaruh Net Interest Margin (NIM), Biaya Operasional terhadap Pendapatan Operasional (BOPO), Loan to Deposit Ratio (LDR) dan Non Performing Loan (NPL) terhadap Return on Assets (ROA). *Jurnal Riset Akuntansi Dan Keuangan*, 5(2), 1377–1392. doi:<https://doi.org/10.17509/jrak.v5i2.7853>
- Astohar, A. (2020). Model Struktural Faktor yang Berpengaruh terhadap Profitabilitas Perbankan Go Public di Indonesia. *Among Makarti*, 13(1), 32–50. doi:10.52353/ama.v13i1.189
- Brigham, E. F., & Houston, J. F. (2019). *Fundamentals of Financial Management* (15th Editi). Boston: Cengage Learning.
- Cristina, K. M., & Artini, L. G. S. (2018). Pengaruh Likuiditas, Risiko Kredit, dan Dana Pihak Ketiga terhadap Profitabilitas pada Bank Perkreditan Rakyat (BPR). *E-Jurnal Manajemen Universitas Udayana*, 7(6), 3353–3383. doi:10.24843/EJMUNUD.2018.v07.i06.p18
- Dendawijaya, L. (2009). *Manajemen Perbankan*. Jakarta: Ghalia Indonesia.
- Dewi, L. E., Herawati, N. T., & Sulindawati, N. L. G. E. (2015). Analisis Pengaruh NIM, BOPO, LDR, dan NPL terhadap Profitabilitas (Studi Kasus pada Bank Umum Swasta Nasional yang Terdaftar pada Bursa Efek Indonesia Periode 2009-2013). *JIMAT (Jurnal Ilmiah Mahasiswa Akuntansi) Undiksha*, 3(1). doi:<https://doi.org/10.23887/jimat.v3i1.4752>
- Eng, T. S. (2013). Pengaruh Net Interest Margin, Biaya Operasional Pendapatan Operasional, Loan to Deposit Ratio, Non Performing Loan & Capital Adequacy Ratio Terhadap ROA Bank Internasional Dan Bank Nasional Go Publik Periode 2007-2010. *Jurnal Dinamika Manajemen*, 1(3), 222–227. doi:<https://doi.org/10.22437/jdm.v1i3.1473>
- Fauzi, E., Saraswati, T. O., & Ugut, G. S. (2022). The Impact of Covid-19 on The Profitability of Public Banks Listed in Indonesia. *International Journal of Economics, Bussiness and Accounting Research (JEBAR)*, 6(3), 1–30.
- Fitria, N., & Sari, R. L. (2012). Analisis Kebijakan Pemberian Kredit Dan Pengaruh Non Performing Loan Terhadap Loan To Deposit Ratio Pada PT. Bank Rakyat Indonesia (Persero), Tbk Cabang Rantau, Aceh Tamiang.(Periode 2007-2011). *Jurnal*



- Ekonomi Dan Keuangan*, 1(1), 88–101. Retrieved from <https://garuda.kemdikbud.go.id/documents/detail/1428230>
- Harun, U. (2016). Pengaruh Ratio-Ratio Keuangan CAR, LDR, NIM, BOPO, NPL Terhadap ROA. *Jurnal Riset Bisnis Dan Manajemen*, 4(1), 67–82. Retrieved from <https://ejournal.unsrat.ac.id/index.php/jrbm/article/view/12352>
- Herdhayinta, H., & Supriyono, R. A. (2019). Determinants of Bank Profitability: The Case of The Regional Development Bank (BPD Bank) in Indonesia. *Journal of Indonesian Economy and Business*, 34(1), 1–17. doi:10.22146/jieb.17331
- Iskandar, Y. (2017). Effect of Non Performing Loan (NPL) and Loan to Deposit Ratio (LDR) to Net Interest Margin (NIM) of PT. Bank Tabungan Negara (Persero) Tbk. *International Journal of Social Science and Economic Research*, 2(3), 2669–2674. Retrieved from <http://ijsser.org/more2017.php?id=168>
- Kasmir. (2011). *Manajemen Perbankan: Edisi Revisi 2008*. Jakarta: Rajawali.
- Mandagie, Y. (2021). Analyzing the Impact of CAR, NIM and NPL on ROA of Banking Companies (An Empirical Study on BEI Listed Companies). *INQUISITIVE*, 1(2), 72–87. Retrieved from <https://journal.univpancasila.ac.id/index.php/INQUISITIVE/article/view/2245>
- Masdupi, E., & Defri. (2012). Pengaruh Capital Adequacy Ratio (CAR), Likuiditas dan Efisiensi Operasional terhadap Profitabilitas Perusahaan Perbankan yang Terdaftar di BEI. *Jurnal Kajian Manajemen Bisnis*, 1(1), 1–18. doi:<https://doi.org/10.24036/jkmb.476700>
- Myers, S. C., & Majluf, N. S. (1984). Corporate Financing and Investment Decisions When Firms Have Information that Investors Do Not Have. *Journal of Financial Economics*, 13(2), 187–221. doi:10.1016/0304-405X(84)90023-0
- Pandia, F. (2012). *Manajemen Dana dan Kesehatan Bank*. Jakarta: Rineka Cipta.
- Patni, S. S., & Darma, G. S. (2017). Non Performing Loan, Loan to Deposit Ratio, Net Interest Margin, BOPO, Capital Adequacy Ratio, Return on Asset and Return on Equity. *Jurnal Manajemen Bisnis*, 14(2), 166–184. doi:<https://doi.org/10.38043/jmb.v14i2.349>
- Pertiwi, L., & Susanto, L. (2019). Faktor Yang Mempengaruhi Profitabilitas Pada Perbankan Yang Terdaftar Di Bei. *Jurnal Paradigma Akuntansi*, 1(2), 282–291. doi:10.24912/jpa.v1i2.4701
- Purba, P. L., & Triaryati, N. (2018). Pengaruh CAR, NPL, BOPO, dan LDR Terhadap Net Interst Margin Pada Perusahaan Perbankan Yang Terdaftar di BEI. *E-Jurnal Manajemen Universitas Udayana*, 7(1), 387–411. doi:10.24843/EJMUNUD.2018.v7.i01.p15
- Putri, I. G. A. N. K., & Mustanda, I. K. (2019). Pengaruh Kecukupan Modal, Likuiditas, dan Non Performing Loan terhadap Profitabilitas pada LPD di Kota Denpasar. *E-Jurnal Manajemen Universitas Udayana*, 8(6), 3360–3387. doi:10.24843/EJMUNUD.2019.v08.i06.p03
- Rahmayani, L., & Anggraini, D. T. (2021). Determinan Profitabilitas Industri Perbankan yang Terdaftar di Bursa Efek Indonesia. *Jurnal Akuntansi Dan Governance*, 2(1), 66–75. doi:10.24853/jago.2.1.66-75
- Riyadi, S. (2014). *Banking Assets and Liability Management* (Ed. 3). Jakarta: Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia.
- Rofiatun, N. F. (2016). Pengaruh Pangsa Pasar dan Indikator Perbankan terhadap Profitabilitas Bank Umum Syariah Indonesia. *Journal of Islamic Economics Lariba*, 2(1), 13–24. doi:10.20885/jielariba.vol2.iss1.art5
- Ross, S. A. (1977). The Determination of Financial Structure: The Incentive-Signalling Approach. *The Bell Journal of Economics*, 8(1), 23. doi:10.2307/3003485
- Sulibendika, K. A. (2016). Non Performing Loan, Biaya Operasional Terhadap Pendapatan Operasional, Sebagai Prediktor Loan to Deposit Ratio Dan Return on Assets Pada Perusahaan Perbankan Di Bursa Efek Indonesia. *JAGADITHA: Jurnal Ekonomi & Bisnis*, 3(1), 27–38. doi:<https://doi.org/10.22225/jj.3.1.119.27-38>
- Susilawati, S., & Nurulrahmatiah, N. (2021). Pengaruh Non-Performing Loan (NPL) dan Loan to Deposit Ratio (LDR) terhadap Return on Asset (ROA) dengan Net Interest Margin (NIM) sebagai Variabel Mediasi pada Bank BUMN yang Terdaftar di BEI. *Jurnal Maksipreneur: Manajemen, Koperasi, Dan Entrepreneurship*, 11(1), 68–69. doi:10.30588/jmp.v11i1.833
- Yuhusril. (2019). The Effect of Capital Adequacy Ratio (CAR), Non Performing Loan (NPL), Operational Efficiency (BOPO), Net Interest Margin (NIM), and Loan to Deposit Ratio (LDR), on Return on Assets (ROA). *Research Journal of Finance and Accounting*, 10(10), 166–176. doi:10.7176/RJFA/10-10-19
- Zeuspita, A. C. A., & Yadnya, I. P. (2019). Pengaruh CAR, NPL, DER, dan LAR Terhadap ROA Pada Bank Umum Di Bursa Efek Indonesia. *E-Jurnal Manajemen Universitas Udayana*, 8(12), 7411–7430. doi:10.24843/EJMUNUD.2019.v08.i12.p25