

# Comparative Analysis Of Financial Performance Banking Before And After The Global Economic Crisis In 2008

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**Abstract:** This research was conducted at the Regional Development Bank (BPD) in Indonesia. This study aims to examine and obtain empirical evidence about the comparative financial performance of regional banks after the global crisis with a view of its financial ratio, which includes a ratio (ROA, CAR, COF, GMP, LDR, NIM, ROA and ROE). This study further whether there was a significant difference in the time before and after the global economic crisis of 2008. The method used is a saturated or census sampling of the 26 Bank Pembangunan Daerah (BPD). This study uses secondary data obtained from financial statement data Regional Development Bank for the period 2006 to 2010. The analytical tool used to determine differences in financial performance before and after the global economic crisis of 2008 was Paired sample T test for normally distributed data. If the data were not normally distributed using the Wilcoxon Signed Rank Test. The results showed that the financial performance of the Bank Pembangunan Daerah (BPD) in the ratio of ROA, CAR, COF, GMP, LDR, NIM and ROA before and after the global economic crisis in 2008 there are significant differences. While ROE ratios before and after the global economic crisis of 2008 was not a significant difference.

**Index Terms:** Financial Performance, BOPO, CAR, COF, GMP, LDR, NIM, ROA, ROE, The Global Economic Crisis.

## 1 INTRODUCTION

The Bank has an important role in the economy and serves as a financial intermediary between the surplus unit and the deficit unit. In order to develop industries in Indonesia, banks are expected to mobilize savings funds. Banks as a means to play this strategic role should be able as a vehicle that can collect and channel public funds responsibly. Effective and efficient public fund management can be measured from its financial performance. The financial performance of a bank's business depends on the success or failure of its operations. If the operational activities are successful then the function and role of the bank can be achieved. Conversely, if the operational activities fail, then the financial performance of the bank will be disrupted, even can lead to bankruptcy. In 2008, there was a global crisis affecting several sectors of government in Indonesia, especially economic and banking sectors. This of course has a big influence on the development of banking performance. The main impact for banks is the occurrence of the struggle of funds, especially deposits after this year the bank boosted savings. The difference between the monetary crisis of 2008 and 1998 was the weakness of the economy at that time such as over-valued rupiah, weaker foreign exchange reserve and overly expansive banking system in giving credit by violating the legal lending limit while the capital is weak (Ekowanti, 2011). The global economic crisis that occurred in 2008 actually started in the economic crisis of the United States which then spread to other countries around the world, including Indonesia. The economic crisis of America begins because of the impulse to consumption.. Americans live in consumerism beyond the limits of income they receive. They live in debt, shopping with credit cards, and housing loans. As a result, the financial institution that gave the credit went bankrupt due to loss of liquidity, because the company's receivables to the creditors of the housing have been pawned to the lending institution. In the end the companies must go bankrupt because they can not pay all their debts that are maturing at the same time.

The collapse of these financial firms caused the Wall Street stocks to become powerless, big companies could not survive like Lehman Brothers and Goldman Sachs. The crisis continues to propagate into the real and non-financial sectors around the world. As a result in Indonesia, among others is in October 2008 there are three big state banks that apply for liquidity assistance, each of Rp 5 trillion. Three major state-owned banks are PT Bank Mandiri Tbk., PT Bank BNI Tbk. and PT Bank Rakyat Indonesia Tbk. In addition, small and medium-sized banks have decreased public savings funds. The funds went abroad or big banks. The difficulties of small and medium-sized banks get bigger when one of the most reliable sources of funding, ie interbank funds or Interbank Money Market (PUAB) stops flowing. Another difficulty is the decline in the quality of assets held by banks. This will ultimately hit bank capital as the value of securities held by banks such as the SUN has fallen sharply. The banking company tries to maintain the funds (rupiah and foreign currency) held in anticipation of the sudden withdrawal of cash depositor funds. The banks began to raise public funds by increasing interest rates, especially deposits (from 6% to 12% per year). This situation drags the increase in the interest rate on credit that affects the amount of loans taken by the business world (Banking Supervision Report, 2011). The establishment of Century Bank as a failed bank with systemic impact and monitoring results of Bank Indonesia showed 18 banks with potential liquidity difficulties and 5 banks like Bank Century showed that the condition of national banking performance during the global crisis can be said to be good (Marpaung, 2011). Such conditions are interesting to study. Therefore, we tested the impact of the global economic crisis in 2008 on the financial performance of regional banks in Indonesia. Through this research is expected to reveal the resilience of the banking industry, especially on the financial aspects of local banking in Indonesia in the face of global economic crisis.

The differences in this study with previous studies are:

- 1) Anouze (2011) The object of his research is Gulf States (Gulf) including Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and UAE. While this research is the object of research is BPD throughout Indonesia.

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- 2) Pratikto and Sugianto Research (2011) with the title of efficiency performance of Bank Syariah before and after global crisis using research method with non parametric test approach Data Envelopment Analysis (DEA). In this study the authors use parametric test approach Paired Sample T Test.
- 3) In the research of Deni (2006) with the title of comparative analysis of Syariah Bank's financial performance with conventional Commercial Bank before and after financial deregulation and monetary crisis of case study of BMI and 4 (four) Conventional Commercial Bank using 6 (six) variables including CAR, NPL, ROA, ROE, BOPO and LDR. While in this study the authors conducted a study on 8 (eight) variables including BOPO, CAR, cost of funds, GPM, LDR, NIM, ROA and ROE.

Based on the difference of findings from the results of previous studies the authors are interested to conduct research in Regional Development Bank (BPD) in Indonesia by using the publication financial statements available in Bank Indonesia during the period 2006-2010 by examining the financial performance of banks with the ratio of BOPO, CAR, cost of fund, GPM, LDR, NIM, ROA and ROE. Therefore, this paper aims to fill in the deficiencies in research that compared the economic crisis that had occurred in Indonesia. The rest of this paper is organized as follows: Part 2 provides a theoretical review, Section 3 provides a methodology for measuring the effects of both financial crises, Section 4 presents data analysis, and Section 5 presents conclusions and suggestions. The problem formulation is: Is there a significant difference between financial performance (BOPO, CAR, COF, GMP, LDR, NIM, ROA and ROE) of regional banks before and after the global economic crisis of 2008?. Based on the formulation of the above problem, the purpose of this study is to examine and obtain empirical evidence about the comparison of financial performance of regional banks after the global crisis by looking at the financial ratios, which include ratios (BOPO, CAR, COF, GMP, LDR, NIM, ROA and ROE). The objectives to be achieved in this research is to analyze the differences on the comparison of financial performance of regional banks before and after the global economic crisis of 2008.

## 2 LITERATURE REVIEW

### 2.1 Regional Development Banks

Regional Government Banks are banks whose shares are owned by the Regional Government. The Regional Government-owned Bank is commonly known as the Regional Development Bank (BPD), established under Act No. 13 of 1962. Each Regional Government has its own BPD. In addition, some local governments have rural banks (BPR).

### 2.2 Financial Performance of Banking

The bank's financial performance is a description of the bank's financial condition over a period of time, whether it involves the aspect of fund raising and fund distribution, which is usually measured using five aspects of the assessment known as CAMEL (Capital, Asset, Management, Earnings and Liability) ratio (Abidin, 2008: 155). Banking financial performance is measured by the following ratios:

Operational Cost Operational Expenses (BOPO)  
Operational Income Operating Cost (BOPO) is a ratio used to

measure the level of efficiency and ability of the bank to perform its operations. The lower the ratio of BOPO means the better the bank's management performance, because it is more efficient in using the resources that exist in the company. BOPO is the ratio between operational costs to operating income (Dendawijaya, 2003). Operational cost is the cost incurred by the bank to run its business activities. While the operating income is the main income of the bank, the interest income derived from fund revenues in the form of credit and other operations placement.

#### Capital Adequacy Ratio (CAR)

Capital is an assessment based on the capital owned by one bank. One of the assessments is the CAR (capital adequacy ratio) method by comparing capital to risk-weighted assets (RWA). To minimize the risk of credit problems, the bank provides funds for the development of the business and accommodates the risk of losses caused by a bank operating activity called Capital Adequacy Ratio (CAR). Capital Adequacy Ratio (CAR) is a ratio showing how far all bank assets are at risk (credit, investments, securities, bills with other banks) are financed from the bank's own module funds in addition to obtaining funds from sources outside banks, such as public funds, loans and others (Dendawijaya, 2003).

#### Cost of Fund (COF)

Cost of funds is a ratio to measure the amount of costs incurred for a deposit amount in the bank. Cost of funds is the cost to be incurred by the bank for each fund to be issued by the bank for each fund collected from various sources before deducting the minimum liquidity that must always be maintained by the bank. From this understanding can be concluded that to obtain funds from the source, the bank must spend, where the cost is the real price of the source of funds that can be collected bank. By knowing the actual cost amount of funds issued by the bank for the source of funds, the bank will obtain the certainty of profit and loss in marketing funds in the form of credit by the bank concerned.

#### Gross Profit Margin (GPM)

Profitability ratios are also known as profitability ratios, ie ratios used to measure the ability of banks to earn profits or profits. This ratio is the ratio of earnings (after tax) to capital (core capital) or profit (before tax) to total assets owned by banks in certain period. The profitability ratio in this study is measured by Gross Profit Margin (GPM). The Gross Profit Margin (GPM) Ratio is used to determine the percentage of profit from the pure business activity of the bank concerned after deducting expenses. This ratio is used to determine the percentage of profit from the pure business activity of the concerned bank after deducting expenses.

#### Loan to Deposit Ratio (LDR)

Loan to Deposit Ratio (LDR) represents the liquidity aspect. This ratio measures the level of liquidity. LDR is intended to determine the ability of banks to repay liabilities to customers who have invested their funds with the credits that have been given to the debtors. The higher the ratio, the lower the level of liquidity (Martono, 2004). According to (Kasmir, 2007), loan to deposit ratio is a ratio to measure the composition of the loan amount given compared to the amount of community and own capital used. The amount of loan to deposit ratio according to the maximum government regulation is 110%. According to

(Dendawijaya, 2003), the LDR is the ratio between the total amount of credit granted to the bank with funds received by the bank. This ratio indicates one of the bank liquidity ratings. Liquidity is the ability of the bank to pay its obligations. From the above understanding it can be concluded that the ratio of LDR received bank then the ability of liquidity will decrease. It is caused by the amount of funds needed to finance the greater the credit. Bank liquidity is the bank's ability to pay all its short-term debts with the liquid tools it acquires (Hasibuan, 2004).

#### Net Interest Margin (NIM)

It is a ratio that measures a bank's ability to generate net interest income. This ratio can evaluate the bank's ability to manage interest rates. The higher this ratio the greater the desire of investors to invest and by itself will affect the stock price of banking companies. Net Interest Margin (NIM) is important to evaluate the bank's ability to manage interest rate risk. When interest rates change, interest income and interest rates will change. For example when interest rates rise, both interest income and interest costs will increase as some bank assets and liabilities will be valued at a higher rate. Net Interest Margin (NIM) represents the ability of bank management in managing its earning assets to generate net interest income. Net interest income derived from interest income less interest expense. The greater this ratio, the higher interest income on earning assets managed by the bank so that the possibility of banks in problematic conditions is getting smaller (Almilia and Herdiningtyas, 2005).

#### Return On Assets (ROA)

This ratio is included in the profitability ratio. Profitability is the ability of a company to get profit (profit) in a particular period. The same understanding is conveyed by (Husnan, 2001) that profitability is the ability of a company to generate profits (profit) at the level of sales, assets, and certain capital stock. Meanwhile, according to Michelle & Megawati (2005) Profitability is the ability of companies to generate profits (profit) which will be the basis of dividend payout company. Profitability describe the ability of business entities to generate profits by using all owned capital. This ratio is used to measure the ability of bank management in gaining overall profit. The greater the ROA of a bank, the greater the level of bank profits and the better the bank's position in terms of asset use.

#### Return On Equity (ROE)

Return On Equity (ROE) is the ratio between net income of banks with their own capital, ROE is also a very important indicator for an investor and shareholders to measure the ability of banks in obtaining net income associated with dividends. Basically the higher the ROE the better because it is a sign that the company's management is able to make the company as efficient as possible with equity capitalize the same. The greater the ROE the more effective a company. This ratio to measure the ability of banks in obtaining net profits is associated with dividend payments. The greater this ratio, the greater the increase in net profit of the bank concerned, will further increase the share price of the bank and the greater the dividends received by investors.

### 3 RESEARCH METHODOLOGY, RESULT AND DISCUSSION

This section presents research methodologies in testing comparisons of the global economic crisis before and after the 2008 crisis in Regional Development Banks throughout Indonesia. This research data is taken from Bank Indonesia website from 2006-2010. Data analysis techniques used in this study using different test (t test). The two samples are comparative test, the purpose of this test is to compare whether the two data are the same or different. Prior to the T Test, the first test is done normality test. Where the normality test is done to find out whether the data is normally distributed is not. The second new hypothesis test. Hypothesis test in this research was done by different test used to evaluate treatment (treatment) certain in one same sample at two different observation period that is before and after existence of treatment. Certain treatments in this study are economic crisis events 2008. If the treatment has no effect on the subject, then the average value of measurement is equal to or is considered zero and the null hypothesis (H<sub>0</sub>) is accepted, which means the alternative hypothesis (H<sub>a</sub>) is rejected. If treatment has an effect, the mean value of measurement not equal to zero (H<sub>0</sub>) is rejected, which means the alternative hypothesis (H<sub>a</sub>) is accepted.

#### DATA ANALYSIS

This section presents the results of data analysis and discussion. There are eight hypotheses in this study. The following test results hypothesis and discussion: BOPO before and after the global economic crisis of 2008. Based on the results of the above hypothesis there are significant differences in financial performance before and after the crisis seen from the ratio of BOPO. The global economy after the crisis had a negative effect on BOPO before the crisis. BOPO ratio is used to measure the level of efficiency and ability of banks in conducting their operations (Dendawijaya, 2003). The smaller the BOPO the more efficient the operational costs incurred by the bank or in other words the lower the ratio of BOPO then the possibility of banks in the less problematic conditions. Means it can be said that BOPO after the crisis is less good than before the crisis, this can be seen from the average BOPO before the crisis of 71.2123, while the average BOPO after the crisis of 69.1370. This shows that after the onset of the global financial crisis local banks have BOPO that is less good than in the period before the financial crisis, because the higher the value of BOPO the worse the quality. This BOPO enhancement is possible because of the high costs the bank spends for its operational activities but is not matched by an increase in its operational income. If it refers to the provisions of Bank Indonesia stating that the best minimum BOPO standard is less than 93.52%, the regional banking is in an ideal condition. CAR before and after the global economic crisis of 2008 Based on the results of the above hypothesis there are significant differences in financial performance before and after the crisis seen from the ratio of CAR. The global economy after the crisis had a positive effect on the CAR before the crisis. Bank capital is used to maintain public trust, especially the borrower community. Public trust is very important for the bank because then the bank will raise funds for operational purposes. This means the bank's capital base will be used to maintain liquidity and investment in fixed assets. Conversely, the higher CAR achieved by a bank shows better bank performance because the bank is able to cover the

decline in its assets as a result of bank losses caused by assets at risk with the capital adequacy it has. In other words, the smaller the risk of a bank the higher the profit (Kuncoro, 2002). Means it can be said that after the crisis the ability of banks to bear the risk of any productive assets owned by banks better than before the crisis, this can be seen from the average ratio of CAR before the crisis of 0.0453 while after the crisis of 0.0487. So since the CAR ratio after the crisis is greater than before the crisis, the CAR after better than before the 2008 crisis, because the higher the CAR value the better the quality. Increase in CAR is possible due to reduced bank assets that contain risks. Cost of funds before and after the global economic crisis of 2008 Cost of funds is the cost to be incurred by the bank for each fund to be issued by the bank for each fund collected from various sources before deducting the minimum liquidity that must always be maintained by the bank. From this understanding can be concluded that to obtain funds from the source, the bank must spend, where the cost is the real price of the source of funds that can be collected bank. By knowing the actual cost amount of funds issued by the bank for the source of funds, the bank will obtain the certainty of profit and loss in marketing funds in the form of credit by the bank concerned. Based on the results of the above hypothesis there are significant differences in financial performance before and after the crisis seen from the ratio of cost of funds. The global economy after the crisis had a positive effect on COF before the crisis. It can be argued that after the crisis of the COF variable is better than before the crisis, this can be seen from the average COF before crisis ratio of 0.9444 while after the crisis of 1.1371. So since the average COF ratio before the crisis is smaller than after the crisis, the COF after the crisis is better than before the 2008 crisis. GPM before and after the global economic crisis of 2008 Based on the results of the above hypothesis there are significant differences in financial performance before and after the crisis seen from the ratio of GPM. The global economy after the crisis had a negative effect on the GPM before the crisis. It can be said that before the GPM variable crisis better than after the crisis, this can be seen from the average ratio of GPM before the crisis amounted to 34.0144 while after the crisis amounted to 31.2981. So since the average pre-crisis GPM ratio is greater than after the crisis, the GPM before is better than after the 2008 crisis. LDR before and after the global economic crisis of 2008 Based on the results of the above hypothesis there are significant differences in financial performance before and after the crisis seen from the ratio of LDR. The global economy after the crisis had a positive effect on the LDR before the crisis. The high LDR shows that banks have been able to optimize the use of public funds to expand credit. The higher the LDR the profit earned by the bank will increase. Means can be said that after crisis of LDR variable better than before crisis, this can be seen from average of LDR ratio before crisis equal to 48.8461 while after crisis equal to 74.3660. So since the average LDR ratio before the crisis is smaller than after the crisis, the LDR after the crisis is better than before the 2008 crisis, because the lower the LDR value the better the quality. the increase is thought to be due to increasing public trust to invest in local banks. If referring to the provisions of BI stating that the best standard LDR is 85% -110%, then the regional banking is in an ideal position. NIM before and after the global economic crisis of 2008 Based on the results of the above hypothesis there are significant differences in financial performance before and after the crisis seen from the ratio of

NIM. The global economy after the crisis had a positive effect on NIM before the crisis. Means can be said that after crisis of variable of NIM better than before before crisis, this can be seen from average of NIM ratio before crisis 2,1655 whereas after crisis 2,2697. So since the average NIM ratio after the crisis is greater than before the crisis, the NIM after the crisis is better than before the 2008 crisis. ROA before and after the global economic crisis of 2008 Based on the results of the above hypothesis there are significant differences in financial performance before and after the crisis seen from the ratio of ROA. The global economy after the crisis had a positive effect on ROA before the crisis. Means can be said that after the crisis variable ROA better than before the crisis, this can be seen from the average ROA before the crisis ratio of 1.4747 while after the crisis of 1.6525. the greater the ROA shows the better performance, because the rate of return (return) is greater. If ROA increases, the profitability of the company increases so that the ultimate impact is profitability enjoyed by shareholders. So since the average ROA ratio after the crisis is greater than before the crisis, the ROA after the crisis is better than before the 2008 crisis. This increase is possible due to an increase in the profitability of the current year in the aftermath of the global financial crisis, unlike many predictions business people who think that the global crisis will reduce the company's net profit. If it refers to BI provisions stating that the best ROA standard is 1.5%, then regional banking is in an ideal position. ROE before and after the global economic crisis of 2008 Based on the results of the above hypothesis there are significant differences in financial performance before and after the crisis seen from the ratio of ROE. The global economy after the crisis had a positive effect on ROE before the crisis. Means can be said that after the crisis variable ROE better than before the crisis, this can be seen from the average ROE ratio before the crisis of 30.1176 while after the crisis amounted to 31.6594. So since the average ROE ratio after the crisis is greater than before the crisis, the after-crisis ROE is better than before the 2008 crisis. This result indicates that there has been an increase in the ability of banking companies to generate net profit on their equity after the global crisis occurred . If it refers to the BI stipulation that the minimum ROE standard is 12%, then the regional banking is in an ideal position.

## 4 CONCLUSION AND SUGGESTION

### CONCLUSION

This section contains conclusions and suggestions, namely:

- 1) Based on Paired Sample T Test at BOPO, it is concluded that there is a significant difference between financial performance of Banking regional development bank before and after Global Economic Crisis as measured by BOPO. So from the results of this study we can know that the difference in financial performance of regional development banks that are measured using BOPO before and after the Global Economic Crisis.
- 2) Based on the Paired Sample T Test test on CAR, it is concluded that there is a significant difference between financial performance of regional bank Banking before and after Global Economic Crisis as measured by CAR. So from the results of this study we can know that the difference in financial performance of regional development banks that are measured using CAR before and after the Global Economic Crisis.

- 3) Based on the Paired Sample T Test test on COF, it is concluded that there is a significant difference between financial performance of regional bank Banking before and after Global Economic Crisis as measured by COF. So from the results of this study we can know that the difference in financial performance of regional development banks that are measured using COF before and after the Global Economic Crisis.
- 4) Based on the analysis of Paired Samples Test of GPM variables, it is concluded that there is a significant difference between financial performance of regional bank Banking before and after Global Economic Crisis as measured by GPM. So from the results of this study we can know that the difference in financial performance of regional development banks that are measured using GPM before and after the Global Economic Crisis.
- 5) Based on the analysis of Paired Samples Test of LDR variable, it is concluded that there is a significant difference between the financial performance of Banking regional development bank before and after Global Economic Crisis as measured by LDR. So from the results of this study we can know that the difference in financial performance of regional development banks that are measured using LDR before and after the Global Economic Crisis.
- 6) Based on the Paired Samples Test of the NIM variable, it is concluded that there is a significant difference between the performance of regional development banks before and after the Global Economic Crisis as measured by NIM. So from the results of this study we can know that the difference in financial performance of regional development bank banks that are measured using NIM before and after the Global Economic Crisis. Based on the analysis of Paired Samples Test of the ROA variable, it is concluded that there is a significant difference between the financial performance of regional development banks before and after the Global Economic Crisis as measured by ROA. So from the results of this study we can know that the difference in financial performance of regional development bank banks are measured using ROA before and after the Global Economic Crisis.
- 7) Based on Paired Samples Test analysis of the ROE variable, it is concluded that there is no significant difference between financial performance of regional development bank before and after Global Economic Crisis as measured by ROE. So from the results of this study we can know that there is no difference in financial performance of regional development bank banks that are measured using the ROE before and after the Global Economic Crisis.

### SUGGESTIONS

From the results of conclusions in this study, the authors provide the following suggestions:

- 1) For Regional Banking, to be able to improve financial performance, the banking must always be at the level of efficiency that can generate maximum profit by pressing BOPO. For the bank management is expected to always maintain the level of capital adequacy so that in the end with adequate levels of capital adequacy, the bank's financial performance will increase. And for lending can be increased so that profit increases so that bank

performance also increased.

- 2) For Future Research, For the next researcher, this research is expected to contribute in further research. And further researcher can add research variable to research about crisis among others that is election of other factor in subsequent research, like fundamental factor that is exchange rate of rupiah, interest rate, and inflation. In addition, future researchers should also compare the financial performance of regional banks banking banks with general banking or Syariah banking.

### ACKNOWLEDGMENT

The authors wish to thank faculty of economics of Riau University.

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