THE ANALYSIS OF THE INFLUENCE OF FINANCIAL RATIOS (CAR, EAQ, OEOI, AND LDR) ON ESTIMATING THE EARNINGS GROWTH
(A Study in the Indonesia Regional Development Banks in 2007-2010)

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This study aims to analyze the influence of CAR (Capital Adequacy Ratio), EAQ (Earnings Asset Quality), OEOI (Operations Expenses to Operations Income), and LDR (Loan to Deposit Ratio) on estimating the EG (Earnings Growth) in Indonesia Regional Development Banks in 2007-2010. Sampling technique used was purposive sampling by using some criteria, they are: Indonesia Regional Development Banks which reported their financial statements and did not do mergers and acquisitions during this study period. From those criteria, it was found 26 Regional Development Banks which had to be analyzed, thus, there were 104 analyzed data. Analytical techniques used were t-test and multiple regressions. From the findings of this study showed that the data in this study were normally distributed. Based on multicollinearity test, heteroscedasticity test, and autocorrelation test, there was no deviation variable from Assumptions Classical test. It meant that the data which were used in this study fulfilled the requirements of using multilinear model. From the analysis, it could be found that CAR and LDR influenced significantly positive towards earnings growth, while OEOI influenced significantly negative towards earnings growth. Whereas, EAQ influenced insignificantly negative towards earnings growth. Finally, it is expected that the management of Indonesia Regional Development Banks have to concern with some financial ratios (LDR, OEOI, and CAR) to increase earnings. In the future, Regional Development Banks is expected to be equal to other banks owned by government.

1. INTRODUCTION

Banks are central to the working of a monetary economy. They play a crucial role in the provision of transaction services and the administration of a country’s payment system; they are the natural suppliers of liquidity to firms and households; and they are main distributors for monetary policy (Corrigan: 1982).

As an intermediary institution among the parties who have excess funds to the parties that need fund, it is required that the bank has the healthy financial performance, so intermediation function of a bank can be run well. It can be seen from the main activity of a bank that recieves society’s fund in the form of savings, current accounts, time deposits and provides credit to those who need the funds (Financial Accounting Standards, 2004).

Recognizing the importance of a bank health for the government, the country’s economy, business sectors and clients, it is necessary to stabilize the bank health including stabilizing its liquidity, so it can fulfill its obligations to customers who withdraw their deposits at any time. In addition, the bank health also can be seen from its financial statement. Sudarini (2005), states that the information about the company's financial position, performance and other information related to the finance report can be obtained from the company's financial statement.

Company financial statements report the past financial performance and
show the last financial position of the company. Financial statement users of the bank need information that is understandable, relevant, reliable and comparable in evaluating the bank's financial position and banks’ performance as well as useful in making economic decisions (SAK, 2004). One of the necessary information of investors is the bank’s performance in obtaining earnings.

Earnings is an important indicator of financial health and, in many cases, an early indicator of weaknesses. A bank with negative or declining earnings may assume imprudent risks in turning around its earnings, and end up further accelerating the deterioration of its financial position. Moreover, earnings is usually used by investors to take investment decision by seeing the earnings growth and estimate the future earnings growth (Nu’man, 2009 :4). Earnings growth obtained in the future cannot be ensured, so an earning prediction is needed. The earning growth influenced investment decisions, in which investors or investors candidates invest his/ her money to a company (Penman, 1992 : 564).

The reason of choosing earnings growth as an independent variable is in line with the purpose of a company which generates earnings. Earnings growth used in this study is earnings/ loss before tax in a year period. The use of earnings growth before taxes in this study is considered to be more representative because it can reduce the influence of company size (Bahtiar Usman, 2003). The use of earning/ loss before tax is aimed to avoid the influence of different taxes in the periods analyzed (Hartono and Zainuddin 1999).

Earnings is used to measure a company’s performance; the higher earnings growth indicates that the company’s performance is good. Earnings growth are also usually used to assess bank’s performance, include in Indonesia banking industries.

Based on its ownership, banking industries in Indonesia can be divided into, State-Owned Bank, Foreign Exchange Bank, Non-Foreign Exchange Bank, Regional Development Bank, Joint Venture Bank, and Foreign Bank (Taswan, 2006). Bank used in this study is Regional Development Banks. The reason of choosing the Regional Development Banks because the existence of a Regional Development Bank is quite crucial for Local Government. Regional Development Bank is the bank whose shares are owned by the Local Government. Regional Development Bank (BPD) was established under Law No. 13 of 1962. Each local governments has its own Regional Development Bank. It is defined as a business entity of regional autonomy that has the function and role as a commercial bank with a mission to improve local economic growth. In addition, the Regional Development Bank is the source of income for local government, so it is expected that the earnings obtained from Regional Development Bank will increase in each periods. However, in fact, the earnings growth obtained by Regional Development Banks in Indonesia during 2007 - 2010 were fluctuative.

The amount of earnings and earnings growth of Indonesia Regional Development Banks in 2007-2010 were presented in Table 1.1:

<table>
<thead>
<tr>
<th>Years</th>
<th>Regional Development Bank</th>
<th>Earnings (in millions rupiahs)</th>
<th>Earnings Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td></td>
<td>34,451</td>
<td>12.46</td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td>43,726</td>
<td>26.92</td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td>50,385</td>
<td>15.23</td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td>63,721</td>
<td>26.47</td>
</tr>
</tbody>
</table>

Source:www.bi.go.id (processed)
From Table 1.1, it could be said that the earnings growth in Indonesia Regional Development Banks were fluctuative. In 2007 the earnings growth of Indonesia Regional Development Banks was 12.46% and it increased in 26.92% in 2008. However, the increasing of earnings growth could be said to be temporary because it declined sharply to 15.23% in 2009. Although it declined sharply in 2009, it increased again to 26.47% in 2010.

Regional Development Bank earnings growth changes in each period, so prediction towards factors influenced earnings growth in the future is required. To determine the earnings growth that obtained by the banking firm, CAMELS financial ratio is usually used to estimate the earnings growth in the future. The CAMELS reviews six areas of financial and managerial performance, they are; Capital, Assets, Management, Earning, Liquidity, and Sensitivity to Market Risk. However, four to sixth of those aspects can be measured by financial ratios, they are Capital, Asset, Earnings, and Liquidity (Syarif, Syahru :2006:24).

In this study, CAR (Capital Adequacy Ratio), EAQ (Earning Asset Quality), OEOI (Operations Expenses to Operations Income), and LDR (Loan to Deposit Ratio) were considered to be independent variables toward earnings growth as a dependent variable because those financial ratios are used by Indonesia Central Bank to measure the level of banks health. However, during 2007 – 2010 those financial ratios in Indonesia Regional Development Banks were fluctuative. The average of CAR, EAQ, OEOI, LDR, and earnings growth were presented in Table 1.2:

Some researchers have done studies about the influence of financial ratios in estimating the earnings growth. However, it could be found some inconsistencies among the result of those studies. In his study about the ability of financial ratios on estimating the earnings growth in Indonesia banks, Bahtiar Usman (2003) found that Quick Ratio ROA, LM and DRR were the appropriate variables which could be used to estimate earnings growth. While BOPO, LDR, OPM, NPM, CAR and CRR influenced negatively on estimating the next year earnings growth. While, Afanasief et al (2004) found that inflation, interest rates and the ratio of CAMEL (CAR, ROA, BOPO, NPL, LDR) significantly influenced on earnings growth.

Study about earnings growth was also done by Angbazo (1997). It was stated that LDR and BOPO were significantly positive on influencing earnings growth, while IRR and NPL did not significantly influence on earnings growth. In a study about financial ratio analysis on estimating emiten earnings growth in banking industry, Suhardito et al (2000) found that CAR, ROE and GPM had abilities in estimating earnings growth for next year operation period. While, in their study Zainuddin and Jogiyanto (1999) showed that IRR, LDR, NPL and BOPO influenced significantly positive on estimating earnings growth.

Another study about the ability of financial ratios on estimating earnings growth has been done by Brock and Rojas Suarez (2000) which was done in Latin America. It was found that CAR influenced significantly positive on earnings growth in Bolivia and Columbia banks; however, in Argentina, Chile and Peru, it did not influence significantly on earnings growth. OEOI significantly affected on earnings growth in Argentina and Bolivia banks; while in Columbia, Chile and Peru, it did not show significant effect. LDR influenced significantly on earnings growth in Bolivia, Columbia and Peru banks; on the other hand, in Argentina banks, it did not influence significantly. NPL showed a positive effect to banks earning growth in Columbia banks, but it showed a negative effect to banks earnings growth in Argentina and Peru.
<table>
<thead>
<tr>
<th>Years</th>
<th>CAR (%)</th>
<th>EAQ (%)</th>
<th>OEOI (%)</th>
<th>LDR (%)</th>
<th>Earnings Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>19.50</td>
<td>1.02</td>
<td>73.10</td>
<td>46.27</td>
<td>26.47</td>
</tr>
<tr>
<td>2008</td>
<td>18.37</td>
<td>1.16</td>
<td>85.62</td>
<td>58.24</td>
<td>15.23</td>
</tr>
<tr>
<td>2009</td>
<td>16.87</td>
<td>1.40</td>
<td>94.92</td>
<td>66.77</td>
<td>26.92</td>
</tr>
<tr>
<td>2010</td>
<td>16.91</td>
<td>1.64</td>
<td>88.74</td>
<td>71.13</td>
<td>12.46</td>
</tr>
</tbody>
</table>

Based on the reference from the background of this study, it can be concluded that there are some gaps between the theory which is considered right up to now and its implementation in banking industry. Due to some inconsistencies between some previous studies, especially among variable CAR, EAQ, OEOI, and LDR towards earnings growth, it can be constructed some research problems as follows:

1. What is the influence of CAR on estimating the earnings growth in Indonesia Regional Development Banks?
2. What is the influence of EAQ on estimating the earnings growth in Indonesia Regional Development Banks?
3. What is the influence of OEOI on estimating the earnings growth in Indonesia Regional Development Banks?
4. What is the influence LDR on estimating the earnings growth in Indonesia Regional Development Banks?

2. REVIEW OF RELATED LITERATURE AND RESEARCH MODEL

**Signalling Theory**

The principle of signaling theory states that every activities contains information. Brigham and Houston (2006) states that the signal is an activity that taken by management to provide guidance to investors about how to measure the performance of corporate management. Earnings announcement is an example of the submission through signalling. This earnings announcement contains information that can be used by investors to make investment decisions and estimate a company's prospects in the future.

**Bank and Banking**

Bank is one of the most important financial institutions in economy. It is the principal sources of credit (loanable funds) for millions of individuals and families and for units of government (school districts, cities, countries, etc) (Rose, Pete S. 2002). According to Banking Law No. 10/ 1998, definition of bank is, a business entity which collects funds from the public in the form of deposits and distributes it to the public in the form of credit and / or other forms in order to improve the society’s living standard.

In Indonesia Banking Booklet 2009, banking is defined as everything related to the bank, including institutional, business activities, the way and the process of carrying out their business activities. The main function of Indonesia banking industry is, to collect and distribute public fund, aimed to support the implementation of national development. It is purposed to improve the spread of development and its results, economic growth and national stability, toward improving the society’s living standard.

**Financial Statements of Banking**

Every company, both banks and non bank will report its financial activities in a certain period. The financial statements are intended to provide financial information of a company, either to the owner, management, and external parties who are interested in these financial statements. The financial statement of bank shows the bank's overall financial condition. From this report, it can be known how the bank's actual condition, including strengths and weaknesses. The financial statements were analyzed to estimate whether or not a
company has a good performance in the future.

Earnings Growth

According to Muljono (1999), earnings is the excess of revenue from costs of all postal revenues and losses, costs which exclude interest, taxes, and dividend. E also defined earnings as income.

The character of earnings growth from a year to years, makes information listed in the financial statements would be very helpful in making investment decision for investors who interested in investing their fund in a bank. According to GAAP (1994), earnings refers to the increasing of economy profit during an accounting period in the form of income or additional assets or minimizing liabilities that involve an increasing equity which is not derived from the contribution of capital investment. The earnings growth which continues increasing in each period will give a positive signal about the company's performance. Further information on earnings growth can also be used to estimate the growth of the upcoming earnings growth (Edningsih, 2004).

Earning growth can be formulated as follows:

\[ \Delta Y_{i,t} = \frac{Y_{i,t} - Y_{i,t-1}}{Y_{i,t-1}} \times 100\% \]  

(1)

Source : (Bahtiar Usman, 2003)

in which,
\( \Delta Y_{i,t} \) = earnings growth in period t for bank i
\( Y_{i,t} \) = earnings in the period t for bank i
\( Y_{i,t-1} \) = earnings in the before period t for bank i

CAMELS Approach

In assessing bank performance, it can be assessed by various aspects. The assessment aims to determine whether or not a bank is in a good performance. Therefore, Indonesia Central Bank, as a bank supervisor and mentor, can provide guidance how a bank should be run well or even discontinued its operations. Under the provisions of the Law on Banking, Indonesia Central Bank has issued Circular Letter No. 6/23/DPNP May 31, 2004 and PBI No. 6/10/PBI/2004 which determine how to measure a bank performance. The bank's performance basically can be assessed with a qualitative approach for various aspects which influences the condition and growth of a bank. The qualitative approach is referred to an assessment of the factors of capital, asset quality, management, profitability and liquidity, and sensitivity to market risk. This valuation method mentioned above was later known as the CAMELS method. The CAMELS reviews six areas of financial and managerial performance (Kasmir, 2004), they are:

1) Capital, for the capital adequacy ratios
2) Assets, for the asset quality ratios
3) Management, for assessing the quality of management
4) Earning, for bank profitability ratios
5) Liquidity, for liquidity ratios for banks

However, four to sixth of those aspects can be measured by financial ratios, they are Capital, Asset, Earnings, and Liquidity (Syarif, Syahrul :2006:24).

In this study, there are 4 variables used to examine the influence of CAMELS financial ratio in estimating the earning growth, they are; CAR (Capital Adequacy Ratio) which represents Capital Adequacy, EAQ (Earning Asset Quality) which represents Asset Quality, OEO (Operations Expenses to Operations Income) which represents Earnings Ratio, and LDR (Loan to Deposit Ratio) which represents Liquidity Ratio.

Capital Adequacy Ratio (CAR)

CAR is capital ratios that indicates the ability of bank in providing funds for supporting business and accommodating risks which is caused by bank operations (Achmad and Kusno, 2003). Capital Adequacy is a capital adequacy showing bank's ability to maintain adequate capital and ability of bank management to identify, measure, monitor, and control the risks that can influence the amount of bank capital.
CAR is measured by the ratio of own capital to risk-weighted assets (Dendawijaya, 2005). Starting in March 2010 CAR has been adjusted to the provisions of Regulation No. 10/15/PBI/2008 September 24, 2008 regarding the Capital Adequacy of Commercial Banks, as follows:

\[
\text{CAR} = \frac{\text{Capital}}{\text{Risk Weighted Assets}} \times 100\% \quad \text{.....(2)}
\]

**Earning Asset Quality (EAQ)**

EAQ is the ratio between the earning assets which are classified to total earnings assets. Classified earnings asset is either already obtained by earning assets or losses, while total earning assets is the total investment of bank funds in the form of loans, securities, inclusion and other investments which are intended to obtain earnings. Earnings Asset is the bank investment in the form of credit, securities, and other investments which are intended to obtain earnings (Syahyunan, 2002). Sistematically, based on Circular Letter No. 6/23/ DPNP dated May 31, 2004), EAQ can be formulated as follows:

\[
\text{EAQ} = \frac{\text{Classified Earning Assets}}{\text{Total Earning Assets}} \times 100\% \quad \text{.....(3)}
\]

**Operations Expenses to Operations Income (OEOI)**

Operations Expenses to Operations Income (OEOI) which is often called as the efficiency ratio is used to measure the ability of bank management in controlling operations expenses to operations income. Operations expenses are expenses incurred by the bank in order to run its main business activities. Operations income is the main income of the bank; it is the interest income obtained from the investment of funds in the form of loans and other operations income. The smaller value of OEOI ratio shows that a bank can run out its business activities efficiently. This ratio can be formulated as follows (Circular Letter No. 6/23/ DPNP dated May 31, 2004):

\[
\text{OEOI} = \frac{\text{Operations Expenses}}{\text{Operations Income}} \times 100\% \quad \text{.....(4)}
\]

**Loan to Deposit Ratio (LDR)**

LDR reflects the bank’s ability to pay back withdrawal of depositors funds by relying on credit given as sources of liquidity, in other words how far the credit given by a bank to debtors can balance the bank’s obligation to immediately fulfill the demands of depositors who want to withdraw their money that has been used by bank to provide credit; it can be seen by comparing the total loans with total deposits. A lower of LDR ratio shows a lack of effectiveness of a bank in distributing its funds in the form of credit. The lower LDR indicates that the bank cannot distribute public funds to perform credit expansion optimally (Widayani, 2005). This ratio is formulated as follows (Circular Letter No. 6/23/DPNP dated May 31, 2004)

\[
\text{LDR} = \frac{\text{Credit}}{\text{Third Party Funds}} \times 100\% \quad \text{.....(5)}
\]

**Theoretical Framework**

In running its business, a banking company depends on the capital quality asset owned, net income from its operations, earnings obtained from its business, the amount of credit given to the public, and others. Those aspects influence company earnings. The purpose of a company is to obtain earnings. It is used to measure a company’s performance; the higher earnings growth indicates that the company’s performance is good. It means that earnings growth can be considered as a signal for the condition of a banking company in the future. It contains information that can be used by investors to make investment decisions and estimate a company’s prospects in the future. To determine the earnings growth that occurred in the banking firm, financial ratio can be used to analyze it (Zainuddin and Jogiyanto, 1999).

In this study, CAR (Capital Adequacy Ratio), EAQ (Earning Asset Quality), OEOI (Operations Expenses to Operations Income), and LDR (Loan to Deposit Ratio) are considered as independent
variables towards earnings growth as a dependent variable because those financial ratios are ratios used by Indonesia Central Bank to measure the level of banks health. Another reason of choosing CAR, EAQ, OEOI, and LDR in this study is based on inconsistencies of previous studies results and the influences among CAR, EAQ, OEOI, and LDR towards earnings growth.

The influence of CAR towards Earnings Growth

CAR is the ratio between equity capital to total loans and securities Kashmir (2004:278). Basically, the higher value of CAR is the higher of the earnings which is received by a company; therefore, it contributes to earnings growth. A bank which has high CAR indicates that a bank has adequate capital to operate its business activities, and well-enough to accommodate the risk (if it is liquidated). Moreover, the higher value of CAR also may reflect that the bank is more solvable. Thus, it can be said that CAR influences positively to earnings growth.

H1: CAR influences positively towards earnings growth in Indonesia Regional Development Banks.

The influence of EAQ towards Earnings Growth

EAQ is the ratio between the earning assets which are classified to total earnings assets. Therefore, it can be said that the smaller EAQ showed that the performance of the bank is more effective to minimize classified earning asset and enlarge the total earning assets that will increase revenues (Syahyunan, 2002). From this discussion, it can be concluded that Earnings Assets Quality influences negatively to earnings growth.

H2: EAQ influences negatively towards earnings growth in Indonesia Regional Development Banks.

The influence of OEOI towards Earnings Growth

OEOI which is often called as the efficiency ratio is used to measure the ability of bank management in controlling operations expenses to operations income. The smaller of OEOI ratio shows that a bank can run its business activities efficiently; in other words, the higher value of OEOI ratio indicates that a bank has a problem in its activities. In conclusion, OEOI influences negatively to earnings growth.

H3: OEOI influences negatively towards earnings growth in Indonesia Regional Development Banks.

The influence of LDR towards Earnings Growth

LDR shows the comparison ratio between the credit volume to deposits volume which is owned by bank. LDR reflects the bank's ability to pay back withdrawal of depositor funds by relying on credit given as sources of liquidity, in other words how far the credit given by bank to debtors can balance the bank's obligation to immediately fulfill the demands of depositors who want to withdraw their money that has been used by banks to provide credit; it can be seen by comparing the total loans with total deposits. The higher value of LDR indicates that the greater of funds (in the form of loans) distributed by a bank, which increase the bank's interest as revenue. Thus, it can be said that LDR influences positively to earnings growth.

H4: LDR influences positively towards earnings growth in Indonesia Regional Development Banks.

From the review of related literature, it can be proposed the theoretical framework in Figure 2.1. as follows;
3. RESEARCH METHOD

Types and Sources of Data

The data of this study was taken from financial report of Regional Development Banks in Indonesia during 2007 to 2010 obtained from www.bi.go.id. This study used pooling data which was a combination between time series (time series) and cross section during 2007 to 2010.

Population

The population in this study were twenty-sixth Regional Development Banks in Indonesia which were listed in Indonesia Central Bank (Bank of Indonesia) during this study period.

Sample

Bank samples used in this study were selected purposively sampling with the following criteria:

a. Regional Development Banks that published complete financial statements during the study period in 2007 to 2010.

b. Regional Development Banks which were not doing mergers and acquisitions during this study period.

Based on the criteria established above, there were 26 Indonesia Regional Development Banks used in this study. It meant that all Indonesia Regional Development Banks fulfilled the criteria of this study.

Data Analysis Method

Test Assumptions Classical Deviations

Normality Test

Normality test aims to test whether or not the regression model, confounding variable or residuals have normal distribution. A good regression model is a model which have normal distribution. There are 2 ways to detect whether or not the residuals are normally distributed by graphs analysis and statistical tests (Ghozali, 2005).

1. Graph Analysis
2. Statistical Analysis

Multicollinearity Test

Multicollinearity test aims to test whether the regression model found a correlation between independent variables (independent). Multicollinearity occurs because there is perfect correlation between an independent variable with another independent variable. A good regression model should not have correlation between independent variable (Ghozali, 2005).

Heteroscedasticity Test

Heteroscedasticity test aims to test whether the regression model occurs inequality variance from residual of one observation to another observation (Imam Ghozali, 2005). A good regression model shows that there is no heteroscedasticity in a model. (Ghozali, 2005).
Autocorrelation Test

Autocorrelation test aims to test whether or not there is a correlation between confounding error in a certain period (t) toward confounding error in a certain period before (t-1). A good regression model is a regression which is free from autocorrelation.

Regression Analysis

A method which can be used to analyze data is a quantitative method by multiple regression analysis. Regression analysis is primarily used to estimate the earnings growth by using financial ratios in which; dependent variable is the earnings growth after t period and the independent variables were CAR, EAQ, OEOI, and LDR. This analysis was used to examine the influence of CAR, EAQ, OEOI, and LDR on estimating the earnings growth. Besides measuring the strength of the relationship between two variables or more, the regression analysis also shows the direction of the relationship between the dependent and independent variables (Ghozali: 2005).

It could be formulated as follows:
\[ Y = \alpha + \beta_1X_1(t) + \beta_2X_2(t) + \beta_3X_3(t) + \beta_4X_4(t) + e \] (6)

In which,
- \( Y(t) \) = Earnings growth in t period
- \( \beta \) = Regression Coefisient
- \( \alpha \) = Constanta
- \( X_1(t) \) = CAR in t period
- \( X_2(t) \) = EAQ in t period
- \( X_3(t) \) = OEOI in t period
- \( X_4(t) \) = LDR in t period
- \( e \) = Error

The Coefficient of Multiple Determination \( (R^2) \)

Multiple determination coefficient \( (R^2) \) method is used to measure how far the ability of independent variables can explain the variation of dependent variable. The value of determination coefficient is between 0 and 1. The small value of adjusted \( R^2 \) means that the ability of independent variables in explaining the variation of dependent variable is limited. The value of adjusted \( R^2 \) can be formulated as follows:
\[ R^2 = \frac{ESS}{TSS} = 1 - \frac{\sum e^2}{\sum Yt^2} \] .................(7)

Goodness of Fit Test (F-statistic Test)

Goodness of Fit test is used to test the appropriate model for this study (Goodness of Fit). Significance of F test is conducted to test the certainty effect between independent variables to dependent variable at 95% confidence level (\( \alpha = 5\% \)). If the level of significance less than 0.05 or 5% the model used in the theoretical framework is appropriate to be used, while if the significance level is greater than 0.05, the model used in the theoretical framework is not appropriate to be used. The value of F can be formulated as follows (Gujarati, 1999):
\[ F = \frac{R^2 / (k - 1)}{(1 - R^2) / (N - k)} \] .................(8)
in which
- \( N \) = number of samples
- \( K \) = number of variables

Partial of Significance Test (t-statistics Test)

The influence of each independent variables which are used partially can be analyzed by t- test. In this study the first hypothesis to fourth hypothesis were tested by using t-test at 95% confidence level (\( \alpha = 5\% \)). T-count value can be formulated as follows (Gujarati, 1999):
\[ t - count = \frac{Regression \ Coefficient \ (b_i)}{Standard \ Deviation \ (b_i)} \] .................(9)

4. FINDINGS AND DISCUSSIONS

Findings

The Review of Research Objects

Regional Development Bank is a bank in which its majority of ownership owned by local government. Establishing Indonesia Regional Development Bank is intended to provide fund for the implementation of business development within the framework of regional of national development. This study examined the
influence of CAR, EAQ, OEOI, and LDR towards earnings growth in Indonesia Regional Development Banks in Indonesia in 2007-2010. However, in this study period, Indonesia was influenced by global crisis in U.S. which started in 2008.

Throughout 2008 the dynamics of the Indonesia economy were affected by global economic turbulences. Taken holistically, however, the Indonesian economy still performed comparably to the previous year. This was attributable to the full panoply of policies taken by Bank Indonesia in terms of the monetary, banking and payment systems, all of which were designed to promote and maintain macroeconomic stability as well as minimize the impact of the global crisis on the domestic economy. The policies were instituted prudentially as a means to alleviate inflationary pressures, to catalyze domestic economic growth, strengthen banking resilience against the global crisis and to support the reemergence of the real sector, and also to maximize the payment system in support of all activities of the economy.

A number of factors were suspected as the root of financial system instability in 2008. Greater integration between the Indonesian and global economies implies that external shocks are more likely to affect national financial sector stability. For instance, in the banking side, such conditions could precipitate a rise in non-performing loans (NPL) as well as a contraction in credit growth and other funding required to support the economy. However, this crisis did not so influence the performance of Regional Development Banks in Indonesia. It could be seen from banking statistical data released by Bank of Indonesia (BI) in November 2008 which showed the performance of Regional Development Banks still grew well. That was because Regional Development did not invest a lot of their funds in securities, investment products, foreign exchange, and credit cards.

Based on Indonesia Central Bank analysis, Regional Development Banks recorded well performance by obtaining earnings growth 34.93% at that year. It was because the success of the company in improving its operational efficiency. It could be seen from OEOI, which declined from 74.66% in November 2007 to 70.62% in November 2008. Moreover, the increase of earnings growth was caused by their credit expansion rapidly. The amount of loans of Regional Development Banks per November 2008 reached for about 97.497 trillion rupiahs, or increased rapidly 33.81% when it compared with November 2007, which only reached to 72.858 trillion rupiahs.

According to Bank of Indonesia (BI), the performance of all Regional Developments Banks in Indonesia in January 2007 to October 2010 was good. Most of financial indicators showed positive growth with a tendency becoming stronger.

**Table 4.1. The List of Indonesia Regional Development Banks**

<table>
<thead>
<tr>
<th>No</th>
<th>Name of Bank</th>
<th>No</th>
<th>Name of Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>PT. BPD Aceh</td>
<td>14.</td>
<td>PT. BPD Maluku</td>
</tr>
<tr>
<td>2.</td>
<td>PT. BPD Bali</td>
<td>15.</td>
<td>PT. BPD Nusa Tenggara Barat</td>
</tr>
<tr>
<td>3.</td>
<td>PT. BPD Bengkulu</td>
<td>16.</td>
<td>PT. BPD Nusa Tenggara Timur</td>
</tr>
<tr>
<td>4.</td>
<td>PT. BPD DKI</td>
<td>17.</td>
<td>PT. BPD Papua</td>
</tr>
<tr>
<td>5.</td>
<td>PT. BPD Jabar and Banten (BIB)</td>
<td>18.</td>
<td>PT. BPD Riau</td>
</tr>
<tr>
<td>6.</td>
<td>PT. BPD Jambi</td>
<td>19.</td>
<td>PT. BPD Sulawesi Selatan</td>
</tr>
<tr>
<td>7.</td>
<td>PT. BPD Jawa Tengah</td>
<td>20.</td>
<td>PT. BPD Sulawesi Tengah</td>
</tr>
<tr>
<td>8.</td>
<td>PT. BPD Jawa Timur</td>
<td>21.</td>
<td>BPD Sulawesi Tenggara</td>
</tr>
<tr>
<td>9.</td>
<td>PT. BPD Kalimantan Barat</td>
<td>22.</td>
<td>PT. BPD Sulawesi Utara</td>
</tr>
<tr>
<td>10.</td>
<td>BPD Kalimantan Selatan</td>
<td>23.</td>
<td>PT. BPD Sumatera Barat</td>
</tr>
<tr>
<td>11.</td>
<td>PT. BPD Kalimantan Tengah</td>
<td>24.</td>
<td>PT. BPD Sumatera Utara</td>
</tr>
<tr>
<td>12.</td>
<td>BPD Kalimantan Timur</td>
<td>25.</td>
<td>PT. BPD Sumatera Selatan</td>
</tr>
<tr>
<td>13.</td>
<td>PT. BPD Lampung</td>
<td>26.</td>
<td>BPD Yogyakarta</td>
</tr>
</tbody>
</table>

(Source: [www.bi.go.id](http://www.bi.go.id))
For instance, in distributing credit grew and accommodating Third Party Funds (DPK), they grew 16.6% and 16.4%. While, the average ratio of loans to Third Party Funds (LDR) reached 70.2%. This was a good achievement in the midst of the real sector that has not fully recovered at that time. The amount of lending was quite high, but it was still accompanied by the precautionary principle and application of well risk management. Therefore, the ratio of default loans (Non Performing Loans / NPL) success to be maintained at low levels in 2.2%. It was the lowest level of NPL, if it was compared to other banks.

From the achievement of Regional Development Banks during this study period, there is still a chance for Regional Development Banks to increase their lending to the public, especially on business sectors which are more productive and prospective. However, there is one thing that needs to be improved; Net Interest Margin (NIM) of Regional Development Banks were still high, at around 9.0%. The high value of NIM reflected the dependence of Regional Development Banks towards interest income as the main operating income. For the aspect of capital, current core capital (tier 1) Regional Development Banks reached 827 billion rupiahs, and it was below the average of core capital of national banking that reached 2.2 trillion rupiahs. Overall, during this study period, the performance of Regional Development Banks in Indonesia was quite good.

The object of this study were 26 Regional Development banks in Indonesia which published the financial statements in this study period (first quarter of 2007 to fourth quarter of 2010 obtained from www.bi.go.id). Based on criteria of purposive sampling method, it was obtained 26 banks as samples. Thus, all members of the population were being sampled in this study. In Table 4.1, it was presented the list of Regional Development Banks in Indonesia used in this study.

**Descriptive Data of This Study**

Variable independent data (CAR, EAQ, OEOI, and LDR) and dependet variable data (Earnings Growth) used in this study were the data in 2007 to 2010. By using 4 periods data series and 26 banks cross section data, there were 104 data used in this study. From the result of this study, it could be found sample characteristic which include the amount of sample, mean, maximum value, and standard deviation which were presented in Table 4.2.

From the result of this study, it could be found sample characteristic which include the amount of sample, mean, maximum value, and standard deviation which were presented in Table 4.2. From 104 observation data obtained after analysis process, it was found that the data did not fulfill multivariate analysis of normality of data. Thus, it had done data improvement by filtering data indicated as extreme data, whether they were too high or too low, so 12 of data must be excluded from the data analysis due to outlier data.

### Table 4.2.
**Descriptive Statistic of Indonesia Regional Development Banks after Filtering Outliers**

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR</td>
<td>92</td>
<td>10.60</td>
<td>36.64</td>
<td>20.3785</td>
<td>5.64029</td>
</tr>
<tr>
<td>EAQ</td>
<td>92</td>
<td>0.01</td>
<td>3.60</td>
<td>1.0804</td>
<td>.86815</td>
</tr>
<tr>
<td>OEOI</td>
<td>92</td>
<td>53.02</td>
<td>89.71</td>
<td>71.7326</td>
<td>8.32997</td>
</tr>
<tr>
<td>LDR</td>
<td>92</td>
<td>24.05</td>
<td>129.59</td>
<td>78.6630</td>
<td>23.76336</td>
</tr>
<tr>
<td>EG</td>
<td>92</td>
<td>-38.08</td>
<td>91.74</td>
<td>23.3687</td>
<td>24.98165</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>92</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS output processed from IRDB data
The Result of Normality Test
Normality test aims to test whether or not the regression model, confounding variable or residuals have normal distribution. From the Figure 4.1, it could be seen that the data distribution was normal, it showed its regression model fulfill the assumptions of normality.

**Figure 4.1**
Histogram Graph of IRDB

![Histogram Graph of IRDB](image)

Source: SPSS output processed from IRDB data

Normality test by histogram graph can be misleading. In avoiding the misleading, it can be used normal probability plot to compare between cumulative distribution and normal distribution.

**Figure 4.2**
Graph of Normal Plot in IRDB

![Graph of Normal Plot in IRDB](image)

Source: SPSS output processed from IRDB data

Probability Plot in Figure 4.2 looked normal because the data of this study were normally distributed in diagonal line. The data were plotted against a theoretical normal distribution in such a way that the points should form an approximate straight line. Departures from this straight line indicated departures from normality. Based on histogram graph and probability indicated that the regression model was appropriate to be used in this study because it fulfilled the normality assumption.

However, seeing the normality by seeing the probability plot and histogram graph could also be misleading, that was why Kolmogrov-Smirnov test could be used to ensure the normality of the data. The result of Kolmogrov-Smirnov test could be seen in Table 4.4.

From the result of Kolmogrov-Smirnov test in Table 4.3, it could be concluded that the data of Indonesia Regional Development banks were normally distributed. It could be seen from then value of Kolmogrov Smirnov test which was about 0.659 and the significance level was 0.777 which was higher that 0.05. It meant that the residual data were distributed normally, because it was higher than the standard value of Kolmogrov-Smirnov test which was 0.05.

**Table 4.3.**
The Result of Kolmogro-Smirnov Test

<table>
<thead>
<tr>
<th>One-Sample Kolmogorov-Smirnov Test</th>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>92</td>
</tr>
<tr>
<td>Normal Mean</td>
<td>.0000000</td>
</tr>
<tr>
<td>Parameters&lt;sup&gt;a&lt;/sup&gt;</td>
<td>21.63929681</td>
</tr>
<tr>
<td>Most Absolute</td>
<td>.069</td>
</tr>
<tr>
<td>Extreme Positive</td>
<td>.055</td>
</tr>
<tr>
<td>Differences Negative</td>
<td>-.069</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>.659</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.777</td>
</tr>
</tbody>
</table>

<sup>a</sup> Test distribution is Normal.

Source: SPSS output processed from IRDB

**The Result of Multicolinearity Test**
Multicollinearity test aims to test whether or not the regression model found a correlation between independent variables. Multicolinearity occurs because there is perfect correlation between an independent variable with another independent variable.

From Table 4.4, it could be concluded that all variables used in this study did not occur multicolinearity. It could be seen that the each value of VIF from four
variables was less than 10 and the value of tolerance from each variable was higher than 0.1 (> 0.1). It could be concluded that four independent variables in this study (CAR, EAQ, OEOI, and LDR) could be used to estimate the Earnings Growth (EG) in Indonesia Regional Development banks.

**Table 4.4.**

The Result of Multicolinearity Test

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Model</th>
<th>Collinearity Statistics</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 (Constant)</td>
<td>Tolerance</td>
<td>.748</td>
<td>1.336</td>
</tr>
<tr>
<td></td>
<td>CAR</td>
<td>Tolerance</td>
<td>.748</td>
<td>1.336</td>
</tr>
<tr>
<td></td>
<td>EAQ</td>
<td>Tolerance</td>
<td>.822</td>
<td>1.216</td>
</tr>
<tr>
<td></td>
<td>OEOI</td>
<td>Tolerance</td>
<td>.745</td>
<td>1.342</td>
</tr>
<tr>
<td></td>
<td>LDR</td>
<td>Tolerance</td>
<td>.721</td>
<td>1.387</td>
</tr>
</tbody>
</table>

a. Dependent Variable: EG
Source: SPSS output processed from IRDB data

Moreover, it could also be seen in Table 4.5. about the value of correlation between independent variables. From the table, it could be seen that the lowest correlation happened CAR and EAQ with level of correlation was 0.072 or 7.2%. Whereas, the highest correlation happened between CAR ratio and OEOI ratio with level of correlation 0.461 or 46.1%. It meant that the correlation among the dependent variables was still under 95%. It indicated that there was no serious multicollinearity in this model.

**The Result of Heterocedasticity Test**

Heterocedasticity test aims to test whether the regression model occurs inequality variance from residual of one observation to another observation (Imam Ghozali, 2005). Scatter Plot can be used in deciding heterocedasticity.

From Figure 4.3, it could be seen that the points spread out randomly both below and above the Y axis. It indicated that the regression model used in this study did not cause heterocedasticity. These results were also strengthened by the results of Glejser test which could be seen in Table 4.6.

**Table 4.5.**

Coefficient Among Variables

<table>
<thead>
<tr>
<th>Coefficient Correlations</th>
<th>Model</th>
<th>LDR</th>
<th>OEOI</th>
<th>EAQ</th>
<th>CAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Correlations</td>
<td>LDR</td>
<td>1.00</td>
<td>.335</td>
<td>-.408</td>
<td>.325</td>
</tr>
<tr>
<td></td>
<td>OEOI</td>
<td>.335</td>
<td>1.00</td>
<td>-.171</td>
<td>.461</td>
</tr>
<tr>
<td></td>
<td>EAQ</td>
<td>-.408</td>
<td>-.171</td>
<td>1.000</td>
<td>-.072</td>
</tr>
<tr>
<td></td>
<td>CAR</td>
<td>.325</td>
<td>.461</td>
<td>-.072</td>
<td>1.000</td>
</tr>
</tbody>
</table>

| Covariances              | LDR   | .013 | .012 | -.137 | .018 |
|                          | OEOI  | .012 | .103 | -.161 | .070 |
|                          | EAQ   | -.137 | -.161 | 8.600 | -.100 |
|                          | CAR   | .018 | .070 | -.100 | .225 |

a. Dependent Variable: EG
Source: SPSS output processed from IRDB data

**Figure 4.3.**

Scatter Plot Graph of Regional Development Banks
Based on Table 4.6, it showed that the highest coefficient parameter was in CAR with the value of significance was 0.934, while the lowest coefficient parameter was in EAQ with the value of significance 0.079. It meant that the coefficient parameters for all independent variables used in this study were higher than the significance level 0.05. It could be concluded that there was no heteroscedasticity in this regression equation.

The Result of Autocorrelation Test

Autocorrelation test aims to test whether or not there is a correlation between confounding error in a certain period (t) towards confounding error in a certain period before (t-1). A good regression model is a regression which is free from autocorrelation. In deciding whether or not there is autocorrelation, it can be decided by the value of Durbin Watson. The result of Durbin-Watson of Indonesia Regional Development Banks was presented in Table 4.7 below:

From Table 4.7, it could be seen that the value of Durbin Watson test was 2.172, whereas the value table of DW by significance level 95%, and n = 92 was dL = 1,573 and dU = 1,7523. It could be concluded that,

\[(4-dL) = 4 - 1.573 = 2.427\]
\[(4-du) = 4 - 1.752 = 2.247\]

It could be concluded that

\[1.7423 < 2.172 < 2.2477\]

From the result of DW-test, it could be concluded that there was no autocorrelation in this regression model. It could also be seen in the Table 4.8.

The result of Durbin-Watson Test and Decision

Source: SPSS output processed from IRDB data

<table>
<thead>
<tr>
<th>positive autocorrelation</th>
<th>doubtful area</th>
<th>free from autocorrelation</th>
<th>doubtful area</th>
<th>negative autocorrelation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>dL</td>
<td>Du</td>
<td>4-du</td>
<td>4-dl</td>
</tr>
<tr>
<td></td>
<td>1.573</td>
<td>1.752</td>
<td>2.172</td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS output processed from IRDB data
The Result of Regression Analysis

The Result of The Coefficient of Multiple Determination ($R^2$)

Multiple determination coefficient ($R^2$) method is used to measure the ability of independent variables in explaining the variation of dependent variable. The result of the multiple determinate coefficient in Indonesia was presented in Table 4.9.

### Table 4.9. The Result of Multiple Determination Coefficient

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.503</td>
<td>.253</td>
<td>.219</td>
<td>22.13116</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), LDR, OEOI, EAQ, CAR  
b. Dependent Variable: EG  
Source: SPSS output processed from IRDB data

From the table of multiple determination coefficient, it could be obtained that the value of multiple determination coefficient (adjusted $R^2$) was 21.9%. It meant that the ability of four independent variables (CAR, EAQ, OEOI, and LDR) in explaining the dependent variables (Earnings Growth) in Indonesia Regional Development banks was 21.9%. Whereas, 78.1% of earnings growth was influenced by others factors which were not used in this study.

The Result of Goodness of Fit Test (F-test)

Goodness of Fit test is used to test the appropriate model for this study. Significance F test is done to test the whether or not four independent variables used in this study significantly influenced dependent variable. From the test which had been done, it was obtained the result as follows:

### Table 4.10. The Result of Goodness of Fit Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>14464.113</td>
<td>4</td>
<td>3616.028</td>
<td>7.383</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>42611.584</td>
<td>87</td>
<td>489.788</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>57075.697</td>
<td>91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), LDR, OEOI, CEA, CAR  
b. Dependent Variable: EG

From the Table 4.10, it could be seen that the value of F was 7,383, which was higher than F table (2.47). The probability value was 0.00 and it meant that it was lower than the significance level 0.05. Thus, Ho was rejected which meant that regression model could be accepted, so the earnings growth of Indonesia Regional Development banks could be estimated by CAR, EAQ, OEOI, and LDR.

The Result of Partial of Significance Test (t-statistics test)

The influence of each independent variable towards dependent variable could be analyzed by t-test. In this study the first hypothesis to fourth hypothesis were tested by using t-test at 95% confidence level ($\alpha = 5\%$). The result of t-test was presented in Table 4.11

From Table 4.11, it could be formulated equation as follows:

$$\text{EG} = 46.337 + 0.971 \text{CAR} - 0.141 \text{EAQ} - 0.889 \text{OEOI} + 0.269 \text{LDR}$$

Based on the result of t-test in Table 4.11, it could be known that CAR and LDR influenced significantly positive to earnings growth. It meant that the increasing of CAR and LDR influenced on the increasing of Earnings Growth. While OEOI influenced significantly negative to earnings growth. It indicated that the increasing of OEOI influenced on the declining of earnings growth. Whereas, EAQ influenced insignificantly negative to earnings growth. It could be concluded that the increasing of EAQ could influence the declining of earnings growth insignificantly.
Table 4.11. The Result of t-test Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>46.337</td>
<td>32.794</td>
</tr>
<tr>
<td>CAR</td>
<td>.971</td>
<td>.475</td>
</tr>
<tr>
<td>EAQ</td>
<td>-.141</td>
<td>2.953</td>
</tr>
<tr>
<td>OEOI</td>
<td>-.889</td>
<td>.323</td>
</tr>
<tr>
<td>LDR</td>
<td>.269</td>
<td>.114</td>
</tr>
</tbody>
</table>

a. Dependent Variable: EG

Source: SPSS output processed from IRDB data

**CAR Influenced Significantly Positive towards Earnings Growth**

Based on t-test, it was obtained regression coefficient which was 0.971 by significance value 0.05, it meant that the increasing of CAR was followed by the increasing of earnings growth significantly. It could be seen the regression of CAR to earnings growth was 0.971 and the significance level was 0.044 which was lower than 0.05. It meant that CAR influenced significantly positive to earnings growth.

The result of this study supported Brock and Rojas Suarez’s study (2000) which found that CAR influenced significantly positive on earnings growth in Bolivia and Columbia banks. It meant that the increasing of CAR was followed by the increasing of earnings growth significantly. The increasing of CAR showed that the bank’s performance was good. It indicated that bank could guarantee public funds, thus it made public believe to save their funds in those banks. This result of this study supported Suhardito et al’s study (2000) which found that the increasing of CAR was followed by the increasing of earnings growth.

**EAQ influenced insignificantly negative towards Earnings Growth**

From the result of t-test, it could be seen the influence of EAQ towards earnings growth. It showed that the regression coefficient of EAQ to earnings growth was -0.141 and the significance level was 0.962 which was higher than 0.05. It indicated that EAQ influenced insignificantly negative to earnings growth. It could be concluded that the increasing of EAQ was followed by the decreasing of earnings growth insignificantly.

The result of this study showed that EAQ influenced insignificantly negative to earnings growth. It supported Nu’man’s study (2009) that EAQ influenced insignificantly negative to earnings growth. It meant that that the increasing of EAQ was followed by the decreasing of earnings growth. EAQ is the ratio between the earning assets to classified earnings assets. Classified earnings assets which is proxied by multiplying 100% of default assets indicated that the higher of default assets influenced on earnings growth. It made the earnings obtained by a bank declined. It meant that the larger value of EAQ showed that the performance of the bank is more effective to minimize classified earnings asset and enlarge the total earning assets that will increase revenues (Syahyunan, 2002).

**OEOI influenced significantly negative towards Earnings Growth**

Based on the result of t-test, it showed that OEOI influenced significantly negative to earnings growth. It could be seen that the regression of OEOI to earnings growth was -0.889 and the significance level was 0.007 which was lower than 0.05. It indicated that OEOI influenced significantly negative to earnings growth. It could be concluded that the increasing of OEOI was
followed by the declining of earnings growth significantly.

The result of this study supported previous studies done by Afanasief et al. (2004) and Nu’man (2009) which showed that the increasing of OEOI in Indonesia Regional Development banks was followed by the decreasing of earnings growth. OEOI is used to measure the ability of bank management in controlling operations expenses to operations income. The higher value of OEOI shows that the ability of a bank in generating earnings is declined due to inefficiency of this bank in managing its operations expenses. The smaller value of OEOI ratio shows that a bank can run out its business activities efficiently.

**LDR influenced significantly positive towards Earnings Growth**

Based on table 4.11, it showed that the regression coefficient of LDR to earnings growth was 0.269 and its significance level was 0.021 in which this value was significance in 0.05 significance level. Due to 0.021 was lower than the significance level (0.05), it could be concluded that LDR influenced significantly positive to earnings growth. It meant that the increasing of LDR was followed by the increasing of earnings growth in this study period.

LDR influenced on earnings growth studied by Zainuddin and Jogiyanto (1999) showed that the higher value of LDR indicated that the greater of funds (in the form of loans) distributed by a bank, which increased the bank’s interest as revenue. A lower value of LDR ratio shows a lack of effectiveness of a bank in distributing its funds in the form of credit. The lower value of LDR indicates that the bank cannot distribute public funds to perform credit expansion optimally (Widayani, 2005). In line with Zainuddin and Jogiyanto, Triono (2007), Afanasief et al (2004), Brock and Rojas Suarez (2000) found that LDR influenced significantly positive to earnings growth.

In order to make brief explanation about the findings of t-test and hypotheses, it was summarized in Table 4.12

**Discussion**

Based on the result of F-test, it could be concluded that earnings growth in Indonesia Regional Development banks could be influenced significantly towards three independent variables used in this study (CAR, OEOI, and LDR) by 0,00 significance level.

From the value of adjusted R², it could be found that earnings growth of Indonesia Regional Development banks could be explained by CAR, EAQ, OEOI, and LDR in 21,9%. While, 78,1% of earnings growth was influenced by others factors which were not used in this study. While, based on t-test, it could be concluded that three independent variables significantly influenced to earnings growth. It could be explained as follows:

**Table 4.12**

<table>
<thead>
<tr>
<th>No</th>
<th>Hypothesis</th>
<th>Significance</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CAR influences positively towards EG in Indonesia Regional Development Banks</td>
<td>0.044 (Significant)</td>
<td>CAR influenced positively towards EG (Accepted)</td>
</tr>
<tr>
<td>2.</td>
<td>EAQ influences negatively towards EG in Indonesia Regional Development Banks</td>
<td>0.962 (Insignificant)</td>
<td>EAQ influenced negatively towards EG (Rejected)</td>
</tr>
<tr>
<td>3.</td>
<td>OEOI influences negatively towards EG in Indonesia Regional Development Banks</td>
<td>0.007 (Significant)</td>
<td>OEOI influenced negatively towards EG (Accepted)</td>
</tr>
<tr>
<td>4.</td>
<td>LDR influences positively towards earnings growth in Indonesia State-Owned Banks</td>
<td>0.021 (Significant)</td>
<td>LDR influenced positively towards EG (Accepted)</td>
</tr>
</tbody>
</table>

Source: The result of t-test
**Hypothesis 1: CAR influenced positively towards earnings growth**  
CAR is used to measure adequacy capital owned by a bank to cover losses arised from the bank operations. The result of regression test showed that CAR influenced significantly positive towards earnings growth. It could be concluded that the higher value of CAR was followed by the increasing of earning growth. It meant that the first hypothesis proposed in this study was accepted.  
The higher value of CAR indicated the higher earnings that can be obtained by a bank. It also indicated that this bank has adequate capital to operate its business activities, and well-enough ability in accomodating risk. Moreover, the higher value of CAR also may reflect that the bank is more solvable (Bank of Indonesia, 2004). In addition, bank's capital can be used to expand its business which will increase bank’s earnings. The result of this study supported Brock and Rojas Suarez’s (2000) and Suhardito et al’s studies (2000) that CAR influenced significantly positive to earnings growth. In addition, the study done by Afanasief, et al (2004) found that the higher value of CAR achieved by a bank shows the better performance of a bank.

**Hypothesis 2: EAQ influenced negatively towards earnings growth.**  
EAQ is the ratio between the earning assets which are classified to total earnings assets. Based on t-test that had been done, it could be found that EAQ influenced insignificantly negative towards earnings growth. It meant that the increasing of EAQ was followed by the declining of earnings growth insignificantly. Thus, the second hypothesis was rejected.  
The higher value of EAQ showed that the higher of classified earnings asset of a bank. However, the higher value of classified earnings asset showed that the higher of classified earnings asset categorized as default. Global crisis which happened during this study period caused the increasing of asset that categorized as default. This result was also supported by Nu’man study (2009) that EAQ influenced insignificantly negative to earnings growth.

**Hypothesis 3: OEOI influenced negatively towards earnings growth.**  
OEOI which is often called as the efficiency ratio is used to measure the ability of bank management in controlling operations expenses to operations income. From t-test, it could be found that OEOI influenced significantly negative towards earnings growth. It could be concluded that the third hypothesis was accepted.  
OEOI is the ratio between operations expenses to operations income (Zainuddin and Hartono, 1999). A bank is considered as efficient if it is able to reduce losses due to inefficiencies of this bank in managing its business, so its earnings will increase. A healthy bank has OEOI ratio less than 100%, otherwise unhealthy bank has OEOI ratio greater than 100%. The higher value of OEOI shows that the ability of a bank in generating earnings is declined due to inefficiency of this bank in managing its operations expenses. The result of this study also supported others studies done by Afanasief et al (2004) and Nu’man (2009) which showed that OEOI influenced significantly negative towards earnings growth.

**Hypothesis 4: LDR influenced positively towards earnings growth.**  
LDR shows the comparison ratio between the credit volume to deposits volume which is owned by bank. The result of t-test showed that LDR influenced significantly positive towards earnings growth. It could be stated, that the fourth hypothesis proposed was accepted.  
Bank of Indonesia states that bank's liquidity can be proxied by LDR, ratio between total loans to Third-Party Funds. It is used to assess the liquidity of a bank by dividing the amount of credit distributed by banks to deposiors. The value of LDR determined by Bank of Indonesia is about 80% to 110%. A lower of LDR ratio shows a
lack of effectiveness of a bank in distributing its funds in the form of credit. The result of this study supported Zainuddin and Jogiyanto (1999), Brock and Rojas Suarez (2000), Afanasief et al (2004), and Triono (2007) which found that LDR influenced significantly positive towards earnings growth.

4. LDR influenced significantly positive to earnings growth. The result of this study supported Zainuddin and Jogiyanto (1999), Brock and Rojas Suarez (2000), Afanasief et al (2004), and Triono (2007) which found that LDR influenced significantly positive towards earnings growth.

Managerial Implication

From the findings and discussion of this study, managerial policy implications in this study were presented as follows. By looking at the significance level and the regression coefficients, Board Managers of Indonesia Regional Development have to concern with financial ratios which were significant on estimating the earnings growth; they were OEOI, LDR, and CAR. The financial ratio which gave the greatest influence on estimating earnings growth was OEOI by having 0.296 coefficient regressions. Then, it was followed by LDR by having 0.257 coefficient regressions and CAR by having 0.219 coefficient regressions.

Board of managements have to concern to OEOI ratio in order to obtaining maximum earnings. Thus, it makes banks’ performance increase. By looking at the variables OEOI, banks are also expected to minimize the amount of operational expenses, which will maximize the amount of earnings indirectly. Operations expenses should been minimized in order that bank is considered as a healthy bank. A healthy bank has OEOI ratio less than 100%, otherwise unhealthy bank has OEOI ratio greater than 100%. Using outsourcing employee is one of the ways which has to be done by Indonesia Regional Development Bank management to minimize the operations expenses.

Besides minimizing the OEOI ratio, Indonesia Regional Development Banks’s managers are also expected to maintain the value of LDR in 80%-110% level. If the value of LDR is 80% -110%, it can be said that a bank can fulfill the demand of credit optimally. Whereas if the amount of LDR is higher than 110%, meaning that loans which

5. CONCLUSION AND IMPLICATION

Conclusion

This study examined the influence of CAR, EAQ, OEOI, and LDR on estimating the earnings growth. Independent variables used in this study were CAR, EAQ, OEOI, and LDR which. While, Earnings Growth before interest and taxes was considered as dependent variable in this study. From the result of this study, it could be concluded,

1. Capital Adequacy Ratio (CAR) influenced significantly positive towards Earnings Growth.
2. Earnings Asset Quality (EAQ) influenced insignificantly negative to earnings growth.
3. Operations Expenses to Operations Income (OEOI) influenced significantly negative to earnings growth.
4. Loan to Deposit Ratio (LDR) influenced significantly positive to earnings growth.

Theoretical Implication

1. CAR influenced significantly positive towards Earnings Growth. It supported Brock and Rojas Suarez’s (2000) and Suhardito et al’s studies (2000) and Afanasief, et al’s (2004) studies that found CAR influenced significantly positive towards Earnings Growth.
2. EAQ influenced insignificantly negative to earnings growth. This result was also supoprted by Nu’man study (2009) in which EAQ influenced insignificantly negative towards earnings growth.
3. OEOI influenced significantly negative to earnings growth. It supported Zainuddin and Hartono’s (1999), Afanasief et al (2004) and Nu’mans (2009) studies in which OEOI influenced significantly negative towards earnings growth.
is distributed by this bank is higher than funds raised by this bank. The higher value of LDR shows the more risky of the bank liquidity conditions. Otherwise, the lower value of LDR shows that a bank cannot distribute its funds optimally. Otherwise, the lower value of LDR shows a lack of effectiveness of a bank in distributing loans, then it influences which a bank obtain. Thus, it is suggested that Indonesia Regional Development Bank can distribute its funds to public optimally in the form of credit. Therefore, it will increase the earnings in the form of interest. Distributing its funds in the form of credit by using microfinance institution is one of the ways to distribute its funds to public, especially for small and medium business.

For the management of a bank, it is expected to maintain the level of capital, thus it will increase the bank's financial performance. By looking at CAR (Capital Adequacy Ratio) of a bank, it is expected that this bank is able to provide funds to expand its business optimally, thus, it will increase bank’s earnings. Moreover, it is expected to accommodate the possibility of risk of loss from the bank's operations. Investing its funds in the assets which have low risk, (etc: treasury bills, obligations) will increase its earnings. Therefore, it will increase the amount of CAR.

In 2011, there are two important challenges for Regional Development Banks. They have to strengthen their capital and need to redefine the identity of Regional Development Banks. In the future, Regional Development Banks are expected to be equal to others banks owned by government.

**Limitation of This Study**

From the table of multiple determination coefficient, it could be obtained that the value of multiple determination coefficient (adjusted R²) was 21.9%. It meant that the ability of four independent variables (CAR, EAQ, OEOI, and LDR) in explaining the dependent variables (Earnings Growth) in Indonesia Regional Development banks was 21.9%.

Whereas, 78,1% of earnings growth was influenced by others factors which were not used in this study. This study was only done in Indonesia Regional Development Banks in 2007-2010, so there are many banking companies that have not been included in this study.

**Agenda for Future Research**

In future studies, there are several things that need to be concerned. The small value of the adjusted R² which was 21,9% indicated that others bank's financial ratios need to be included as independent variables, such as NPL (Non Performing Loan), NIM (Net Interest Margin), NPM (Net Profit Margin). It is also expected to add a longer time period, thus, it is hoped that the results obtained will be more able to be generalized.

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