

Role of Financial Ratios in the Economy

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Abstract: *This study aims to (1) how are the benefits of financial ratio analysis? (2) how financial ratios can predict bond ratings (3) how financial ratios can predict distress in banks (4) how financial ratios can predict changes in profit and loss (5) how financial ratios can show the effect of mergers on financial performance. Research Results A set of financial ratios (leverage, liquidity, solvency, profitability and productivity) have the ability to form models to predict bond ratings. A ratio has no meaning if it stands alone, but must be compared with the financial ratio in the previous period so that it can know the trends during a certain period. Besides being compared with the ratio of the previous period, it can also be compared with the financial ratios of other companies with the same type of company.*

Keywords: Financial Ratios, Analysis, Distress, Profit and Loss

1. Background

Financial problems are one of the problems that are very vital for companies in the development of business in all companies. One of the main objectives of the establishment of the company is to obtain maximum benefit. But the success or failure of the company in seeking profits and maintaining the company depends on financial management. The company must have a healthy and efficient financial performance to get profit or profit and the company can survive for a long time.

Company performance is the process of critically reviewing the company's finances to provide solutions in making the right decision in a certain period. Financial statement analysis uses the calculation of ratios in order to evaluate the financial condition of the company in the past, present, and future.

One of the tools to measure good or bad company performance is financial reports that are presented regularly every period (Juliana and Sulardi, 2003). Financial ratio analysis is a financial statement analysis technique by comparing one component with other components in a financial statement (balance sheet, income statement, cash flow statement). Then the financial ratios are compared with the financial ratios of the previous year or compared with the financial ratios of other companies with the same type of industry.

2. Problem Identification

Analysis of financial statements has a very broad scope and to limit the scope of the above problems, the author will only discuss about how financial ratios can know the future of the company and to know the benefits of the financial ratios themselves. The authors use descriptive research with qualitative methods.

3. Problem formulation

Based on the background of the problem the main problem is:

- 1) What are the benefits of financial ratio analysis?
- 2) How can financial ratios predict bond ratings?
- 3) How can financial ratios predict distress in banks?

- 4) How can financial ratios predict changes in income?
- 5) How can financial ratios show the effect of mergers on financial performance?

4. Methodology

The research method in this journal resume is conducted in a qualitative way to obtain and summarize important information related to the journals concerned.

Population and Sample

The population on journal resumes conducted by researchers is all journals that have topics on financial ratios.

The sample taken by researchers is five journal titles that have relevance to the topic in the area of financial ratios.

5. Discussion

5.1 Financial Ratios as a Tool for Predicting Bond Levels

One form of funding that a company can do to finance its investment is to issue bonds. Apart from being used as a means of expansion, bonds can also be used as a means to strengthen capital for the company. Bonds are securities in the form of certificates containing contracts between lenders (investors) and lenders (issuers). Bonds for investors are alternative investment media outside bank deposits, while bond issuers are sources of funds outside of bank credit.

Investors and investors interested in buying bonds must pay attention to several things, one of which is the bond rating. Bond rating is the risk scale of all traded bonds. The scale shows the security level of a bond for investors. This security is demonstrated by the ability of the issuer (as a bond issuer) to pay interest and repayment of the principal at the end of its maturity. Bond ratings are very important because they are able to provide informative statements and provide signals about the probability of a company's debt failure (Altman and Nammacher in Ketz and Maher, 1990).

Based on these studies, this study aims to re-examine which variables (financial ratios) have the ability and which are significant in forming a model for predicting bond ratings in Indonesia. In addition, this study also examines differences in statistical models to predict bond ratings. The researcher will test whether using two different analytical techniques

Volume 9 Issue 2, February 2020

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(discriminant analysis and logistic regression) will obtain the same or different results. This research is expected to provide benefits for practitioners and academics. For practitioners, if the empirical evidence generated from the prediction model proposed by researchers is good, it can be used by companies and investors to verify the bond ratings issued by PEFINDO agents. For bond rating agencies, in this case specifically PEFINDO agents as a comparison and consideration in predicting bond ratings. Meanwhile for academics, this research is expected to contribute to the development of future bond rating prediction models, especially regarding the ability of financial ratios to predict corporate bond ratings in Indonesia.

Profitability ratios are proxied by 5 ratios, there is 1 ratio that is not significant, namely the PRFCOFTS ratio. The significant results of the PRFOIS ratio are consistent with Horrigan's (1966), S&P (1994) research in Sulistyastuti (2002) but different results from Nurhasanah's research (2003). While the significance of the PRFNIATTA ratio is consistent with Pinches and Mingo's research (1973).

The proxied productivity ratios with 4 ratios all show asymp. Sig (2-tailed) <0.05. Significant results from the PRODSTA ratio are consistent with the research of Nurhasanah (2003) but different results with Horrigan (1966). The PRODSFA ratio is consistent with research by S&P (1994) in Sulistyastuti (2002), Kesumawati (2003) and Sari (2004). Mann Whitney test results show that of the 22 financial ratios there are 20 financial ratios that differ significantly between companies whose bonds fall into the investment grade and non-investment grade categories. This can be proven by looking at the asymp value.

Sig (2-tailed) is smaller than 0.05. Whereas 2 other financial ratios cannot distinguish the two categories because of the asymp value. Sig (2-tailed) is greater than 0.05. Those two financial ratios are net worth to long-term liability (NWLTL) with asymp value. Sig (2-tailed) of 0.117 and cash flow from operating to total sales (CFOTS) with asymp value. Sig (2-tailed) of 0.143. By looking at the results of the overall test, it can be concluded that the first hypothesis (H1) is accepted.

5.2 Financial Ratios as a Tool for Predicting Profit Changes in Property Companies on the IDX and SGX

Research on financial ratio analysis began with research by Venus C. Ibarra (2009), Meythi (2005) and Nurjanti Takarini & Erni Ekawati (2003) provide empirical evidence supporting ratio analysis finance in predicting changes in pre-existing company profits and providing diverse and significant results. So that this research was conducted at the Indonesia and Singapore Stock Exchanges because so far, studies that have compared financial ratio analysis in predicting earnings changes on the Indonesia and Singapore Stock Exchanges have not yet existed in Indonesia. The population in this study are Real Estate and property companies listed on the Indonesia and Singapore Stock Exchanges that publish the 31st December financial statements and are audited reports.

The formulation of the problem in this study is whether financial ratio analysis can be used to predict earnings changes in Real Estate and Property companies listed on the Indonesia Stock Exchange (IDX) and Singapore (SGX) and whether there are differences in financial ratio analysis to predict earnings changes in Real Estate companies and Property between the Indonesia Stock Exchange (IDX) and Singapore (SGX). The purpose of this study is to provide empirical evidence whether financial ratio analysis influences predict earnings changes and whether there are differences in financial ratio analysis that influence in predicting earnings changes in real estate and property companies on the Indonesia Stock Exchange (IDX) and Singapore (SGX).

Based on the results of hypothesis testing with F test all independent variables of financial ratio analysis (current ratio, total asset turnover, total debt to total assets, profit margin, ROA, and ROE) have a significant effect in predicting earnings changes in real estate companies and property on the Stock Exchange Indonesia (IDX) in 2004-2009. While based on the results of the t test, it can be concluded that the liquidity ratio (current ratio) and profitability ratio (profit margin) have a significant effect in predicting changes in profits in real estate and property companies on the Indonesia Stock Exchange (BEI) in 2004-2009. Whereas the Activity Ratio (total assets turnover); Solvency ratios (total debt to total assets) and profitability (ROA and ROE) have insignificant influence in predicting changes in profits in real estate and property companies on the Indonesia Stock Exchange (IDX).

Based on the results of the Chow test analysis that can be seen from table F with $df = 2$ and 129 the significance level of 0.05 obtained table F value of 3.07. Therefore $F_{arithmetic} > F_{table}$ ($11,647 > 3.07$), it is concluded that there are differences in financial ratio analysis (current ratio, total asset turnover, total debt to total assets, profit margins, ROA, and ROE) which influence in predicting changes in earnings from real estate companies and property on the Indonesia Stock Exchange (IDX) and Singapore (SGX) in 2004-2009.

5.3 Benefits of Financial Ratios in Predicting Financial Distress in Banking (2007-2012)

Financial distress is a condition of a company that occurred before bankruptcy. A company is said to be in a state of financial distress if the company is unable or having difficulty in financing its financial obligations and generating negative profits. Foster in Almilialia and Kristijadi (2003: 7) states several indicators or sources of information regarding the likelihood of financial difficulties, including:

- 1) Analysis of cash flows for the present and future periods.
- 2) Analysis of the company's strategy that considers potential competitors, the relative cost structure, expansion of plans in the industry, the company's ability to continue to increase costs, the quality of management and so on.
- 3) Analysis of financial statements from companies and their comparison with other companies.
- 4) External variables such as securities return and bond valuation.

Bank financial statements can be used in predicting the financial condition or soundness of a bank. The financial statements provide information about the results of operations that have been obtained at a certain time as well as business costs incurred in the context of carrying out operational activities and managerial activities of the bank through the bank's income statement. Analysis of the benefits of financial ratios can be done by looking at the financial ratios of banks presented in the financial statements of the bank concerned.

Almilia and Herdiningtyas (2005) conducted a research on the benefits of the CAMEL ratio in predicting problematic conditions in banks. The ratios used are CAR, Troubled Earning Assets (APB), NPL, PPAPAP, ROA, NIM and BOPO. The results showed that the CAR and BOPO ratios are ratios that have a significant positive effect on the bank's problematic conditions. Christina Kurniasari (2013) conducted a *Performing Loan* (NPL). The hypotheses used are:

H1: CAR ratio has a positive influence on the prediction of *financial distress* banks.

H2: ROA ratio has a positive influence on the prediction of *financial distress* banks.

H3: ROE ratio has a negative influence on predictions *financial distress* bank.

H4: LDR ratio has a negative influence on the prediction of *financial distress* bank.

H5: BOPO ratio has a positive influence on the prediction of *financial distress* banks.

- 1) Logistic regression model using financial ratios 1 year before *financial distress* is not a good regression model because the regression model is not fit with the data. While the logistic regression model using financial ratios 2 years before *financial distress* is a good logistic regression model because the model is fit with the data.
- 2) The financial ratio model 2 years before *financial distress* that is used is able to predict *financial distress* banks and non-banks *financial distress* by 70.8%.
- 3) *Capital Adequacy Ratio* (CAR) 2 years before *financial distress* has a positive but not significant effect in predicting *financial distress*. The results of this study differ from the results of research conducted by Almilia and Herdiningtyas (2005) who found that CAR had a negative and significant influence in predicting *financial distress* in banks in the 2000-2002 period.
- 4) ratio *Return on Assets* (ROA) 2 years before *financial distress* has a negative but not significant effect on prediction *financial distress*. The results of this study are consistent with the results of research conducted by Almilia and Herdiningtyas (2005) in the period 2000-2002.
- 5) ratio *Return on Equity* (ROE) 2 years before *financial distress* has a negative but not significant effect on prediction *financial distress*. The results of this study are consistent with the results of research conducted by Prasetyo (2011) in the period 2006-2008.
- 6) Ratios *Loan to Deposit Ratio* (LDR) two years before the *financial distress* has negative but insignificant effect on prediki *financial distress*. The results of this study are consistent with the results of research conducted by Martharini (2012) in the period 2006-2010.

6. Conclusion

- 1) A set of financial ratios (leverage, liquidity, solvency, profitability and productivity) have the ability to form models to predict bond ratings.
- 2) There are differences in financial ratio analysis (current ratio, total asset turnover, total debt to total assets, profit margins, ROA, and ROE) that influence in predicting changes in earnings from real estate and property companies on the Indonesia Stock Exchange (BEI) and Singapore (SGX) years 2004-2009.
- 3) LDR and BOPO ratios are ratios that have a significant positive influence in predicting *financial distress* in banks in Indonesia. While the CAR, NPL, ROA, and ROE ratios do not have a significant influence in predicting *financial distress* in banks.
- 4) A ratio has no meaning if it stands alone, but must be compared with the financial ratio in the previous period so that it can know the trends during a certain period. Besides being compared with the ratio of the previous period, it can also be compared with the financial ratios of other companies with the same type of company.

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