

CHAPTER 2

THEORITICAL BACKGROUNDS

2.1 Financial Ratio Analysis

2.1.1 Overview

As discussed earlier that one of the tools for the analysis of financial statements is the ratio analysis. This analysis describes a particular relationship between elements of one with the other elements in a financial report. Financial statements referred to is the balance sheet and income statement. Balance sheet shows assets, debt and the company's capital at a given time. Income statement reflects the results achieved by the company within a certain period (usually one year).

Financial ratio analysis of a company used to assess the situation and trends also measure the performance of management. Through analysis of the ratio can be used as a basis to assess whether management's performance has reached a predetermined goal or not, and early knowing on trends or trends that management performance can be anticipated earlier.

The results of analysis can be used to observe the weakness of the company during the period of time to walk, is there any weaknesses in the company can be repaired, while the results are good enough to be maintained in the future. Further historical ratio analysis can be used for the preparation of plans and policies in the coming years in order to determine the right policy direction.

2.1.2 Financial Ratio Analysis

Financial analysts often compare financial ratios (of solvency, profitability, growth, and other conditions):

- Past Performance - Across historical time periods for the same firm (the last 5 years for example),
- Future Performance - Using historical figures and certain mathematical and statistical techniques, including present and future values, This extrapolation

method is the main source of errors in financial analysis as past statistics can be poor predictors of future prospects.

- Comparative Performance - Comparison between similar firms. Comparing financial ratios is merely one way of conducting financial analysis.

Financial ratios face several theoretical challenges:

- They say little about the firm's prospects in an absolute sense. Their insights about relative performance require a reference point from other time periods or similar firms.
- One ratio holds little meaning. As indicators, ratios can be logically interpreted in at least two ways. One can partially overcome this problem by combining several related ratios to paint a more comprehensive picture of the firm's performance.
- Seasonal factors may prevent year-end values from being representative. A ratio's values may be distorted as account balances change from the beginning to the end of an accounting period. Use average values for such accounts whenever possible.
- Financial ratios are no more objective than the accounting methods employed. Changes in accounting policies or choices can yield drastically different ratio values.
- They fail to account for exogenous factors like investor behavior that are not based upon economic fundamentals of the firm or the general economy (fundamental analysis).

There are many ratios analysis that can be used by the analysts in accordance with the needs and specifications of the business or organization that will be analyzed. In this paper analysis of financial ratios used are CAMELS and DuPont analysis.

2.2 CAMELS Analysis

2.2.1 Overview

Based on the provisions in the Law on banking, Bank Indonesia has issued Circular No. 26/5/BPPP dated May 29, 1993 which regulates the level of assessment

procedures for the bank's health. This provision is an improvement of conditions issued by Bank Indonesia Circular Letter No.. 23/21/BPPP dated February 28, 1991.

Method of assessment of the level above the bank's health became known as the CAMELS method. Because the calculation has been done by bank soundness CAMELS method then continues with the calculation of compliance rate banks on some specific provisions, then the method known as CAMELS.

According to Bank Indonesia Circular No. 6/23/DPNP, Bank Soundness is a qualitative assessment of various aspects that influence the performance of a condition or Bank through the assessment of factors capital, asset quality, management, profitability, liquidity, and sensitivity to market risk. Rating of these factors is done through a quantitative assessment and / or qualitative judgment after considering the elements based on the materiality and significance of assessment factors and the influence of other factors like condition of the banking industry and the national economy.

According to Bank Indonesia Circular No. 6/23/DPNP, Bank Soundness level assessment includes assessment of factors CAMELSS consisting of:

a. Capital

Quantitative and qualitative assessment of capital factor done through assessment of the components as follows:

- Adequacy of Capital Adequacy Ratio (CAR) to the applicable regulations;
- The composition of capital;
 - Future trends / projections of CAR;
 - Earning assets compared with bank capital;
- Bank's ability to maintain the need for additional capital derived from profits (retained earnings);
- Bank capital plan to support business growth;
- Access to capital resources; and
- The shareholder financial performance to enhance bank capital.

b. Asset Quality

Quantitative and qualitative assessment of asset quality factor done through assessment of the components as follows:

- Classified earning assets compared with total earning assets;
- The primary debtor outside the core of related party loans compared to total loan;
- Development of non-performing assets compared to earning assets;
- The adequacy of provision for losses of earning assets (PPAP);
- The adequacy of policy and procedure of earning assets,
- Internal review to earning assets;
- Documentation of earning assets; and
- The handling on performance of earning assets.

c. Management

Quantitative and qualitative assessment of management factor done through assessment of the components as follows:

- General management;
- Implementation of risk management systems; and
- Bank compliance regulations and commitments to Bank Indonesia and or other parties.

d. Earnings

Quantitative and qualitative assessment of earnings factor done through assessment of the components as follows:

- Return on assets (ROA);
- Return on equity (ROE);
- Net interest margin (NIM);
- Operational costs compared with operational income (BOPO);
- Growth in operating profit;
- The portfolio composition of earning assets and diversification of revenue;
- The application of accounting principles in the recognition of income and expenses; and

- operating profit outlook.

e. Liquidity

Quantitative and qualitative assessment of liquidity factor done through assessment of the components as follows:

- Current assets of less than one month compared with the current liability of less than one month;
- One-month maturity mismatch ratio;
- Loan to Deposit Ratio (LDR);
- The projection of future three months cash flows;
- Dependence on interbank placements and primary depositors;
- Asset and liabilities management (ALMA);
- The ability of the bank to gain access to the money market, capital markets or other funding sources; and
- Stability of third party funds.

f. Sensitivity to market risk

Quantitative and qualitative assessment of sensitivity to market risk factor done through assessment of the components as follows:

- Capital or reserves established to cover fluctuations of interest rates compared to potential losses as a result of fluctuations (adverse movement) of interest rates;
- Capital or reserves established to cover fluctuations exchange rates compared to potential losses as a result fluctuations (adverse movement) of exchange rate; and
- The adequacy of market risk management system implementation.

In the dictionary of Banking (Indonesian Institute of Bankers), second edition 1999: CAMELS is the most influential aspect of the financial condition of banks, which also affect bank soundness, CAMELS is an object of the benchmark bank examinations conducted by the bank supervisor. Composed of five criteria CAMELS namely capital, assets, management, earnings and liquidity. Based on the dictionary

Banking (Indonesian Institute of Bankers), the second edition in 1999, CAMELS ratings below 81 shows a weak financial condition reflected by the bank's balance sheet, such as increasing non performing loan ratio to total assets, if it is not solved the banks, it will disrupt business continuity, supervision of banks listed on regarded as banks in problem and supervisors checked more frequently by the bank if compared with banks that are not in problem. Banks with CAMELS ratings above 81 is a bank with strong revenue and less noncurrent assets. However, CAMELS ranking of the bank were never widely disseminated.

The ratio of CAMELS is to describe a relationship or comparison between a certain amount from the amount stated. ratio analysis can be obtained picture of a good or bad condition or the financial position of a bank.

2.2.2 Evaluating Bank Performances using CAMELS Ratio

Machfoedz (1994) examine the benefits of financial ratios to predict corporate earnings future. Financial ratios used are cash flow / current liabilities, net worth and total liabilities / fixed assets, gross profit / sales, operating income / sales, net income / sales, quick assets / inventory, operating income / total liabilities, net worth / sales, current liabilities / net worth and net worth / total liabilities. Found that the financial ratios used in the model useful for predicting earnings one year forward, but not useful for predicting more than one year.

Research related to the bankruptcy prediction of banks in Indonesia was performed by Wilopo (2001). Sampling in this study conducted in clusters of 235 banks at the end of 1996 was divided into 16 banks liquidated and 219 banks that are not liquidated, then the sample was taken 40% as estimated, consists of 7 banks liquidated and 87 liquidated banks that are not liquidated. Then from 215 banks at the end of the year 1997 which consists of 38 banks liquidated and 177 banks in 1999 that not liquidated, 40% is taken as a validation sample consisting of 16 banks liquidated and 70 banks that are not liquidated. Variables used in this study for predicting bankruptcy of the bank are the financial ratios of CAMELS model (13 ratio), scale (size) of banks as measured by the logarithm of assets, and dummy

variables (current credit and management). The results of this study indicate that overall levels of prediction variables used in this study is high (more than 50% as the cutoff of its value). But when viewed from the types of errors that occurred it appears that the strength prediction to the bank that was liquidated 0% because from the sample of liquidated banks, all are predicted not liquidated. Thus the results of the study was not supports the hypothesis that "CAMELS financial ratio model, the quantity (size) banks, and compliance with Bank Indonesia" can be used to predict bank failures in Indonesia. This conclusion was taken based on the type of error occurs, as a special case in Indonesia apparently CAMELS ratios and variables other independent used in this study can't predicted bank failures. Thus need further exploration of other variables in external financial ratios in order to obtain a more accurate model to predict bank failures.

Meanwhile, research conducted by Swandari (2002) attempted to analyze whether the high risk behaviors from shareholders, institutional ownership and performance affect the bank bankruptcy. The research sample consisted of bank categorized fail and a health bank that consists of 25 banks that fail categorized and 35 healthy bank or survive. In this study, the performance variables were proxy with NITA (net income / total assets) and FUTL (operating income / total liabilities), other than that in this study also included control variables which are firm size and total capital. Predicted that the risk profile affect positively on bank's insolvency while the share of institutional ownership and performance negatively affect against bank's insolvency. The results of this study show that:

- Risk profile variables have signs in accordance with the prediction but statistically not significant or it can be said that the hypothesis stated in this study was rejected. These results are consistent with the theory of agency cost of debt which states that companies with high debt levels will cause the manager or banks owner to behave more risk on the cost of the depositors or debtholders. With words others, the owners will seek to increase the value of call options stock that they possess.

- Proxy variables of institutional ownership also has marks fit with prediction but accordingly not statistically significant, or it can be said that the hypothesis stated in this research was rejected.
- While 2 performance variables used which are NITA and FUTL, both supported on hypothesis tested in this research.

Research conducted by Haryati (2002) tried to analyze: (1) whether there are significant differences in financial performance is measured by the ratio of reserves losses on loans to total loan, ROA, efficiency and inter-bank LDR group category A, B and C, and (2) whether these financial ratios have a significant effect against the possibility of bankruptcy of the banks category A, B and C. Results from research are the four financial ratios used was the ratio of ROA, Efficiency and LDR have significant differences among the banks in categories A, B and C.

The ratio of loan provision to total loan has no significant difference considering the measurement of this ratio is to assess the quality of bank assets was less accurate (not in accordance with the measurements as ruled by Bank Indonesia). The use of financial ratios that have a significant difference in the logistic regression model to test the prediction of banks in bankruptcy category were accurately shown with significance level 0.00%. Of the three ratios ROA, efficiency, LDR and ROA ratios only have a significant influence on possibility of bank bankruptcy.

Nasser and Point (2000) concluded that with the univariate test there are two significant types of ratios that distinguish healthy banks and banks that failed EATAR ratio and OPM. Financial ratios that have dominant influence on failure and the success of the bank is EATAR (earning after tax) and PBTA (profit before tax) through analysis of Stepwise Statistics, and with analysis of Casewise Statistics we can discover the overall success rate from discriminant function and for forecasting four years before the bankruptcy was 67.6%. This research used the go public banks as a sample. Independent variables used are several financial ratios CAMELS model which are CAR1, CAR2, ETA, RORA, ALR, NPM, OPM, ROA, ROE, ROA, PBTA, EATAR, and LDR. Whereas which become dependent variable

is the Financial Distress with two alternatives which are healthy bank and failed banks.

Empirically, level of business failures and bankruptcies of banks using CAMELS financial ratios model can be proved as has been done by some researchers, namely: Thomson (1991) in Wilopo (2001) which examined the benefits CAMELS financial ratios to predict bank failures in the USA in the 1980s by using logit regression statistical tool, Whalen and Thomson (1988) in Wilopo (2001) found that CAMELS financial ratio is fairly accurate in compiling bank ratings, and in Indonesia Surifah (1999) examine the benefits of financial ratio predict bankruptcy in banks using the CAMELS model.

In conjunction with macroeconomic indicators, Ardiani (2007) conduct research in stock price prediction using basic approach fundamental analysis and technical analysis. This analysis is to identify performance using the company's financial ratios. To assess the level of banking health CAMELS method which is a Bank Indonesia standard in assessing the soundness of the bank. Problems in this research is how the influence of financial ratios: CAR, RORA, NPM, ROA, ROA and LDR to changes in stock prices on the Stock Exchange Jakarta (JSX) either partially or simultaneously and how big was the influence. Based on the research results revealed that there is significant influence correlation between CAR, RORA, and the LDR of the banking company stock price on the Jakarta Stock Exchange by partial, while the partial test results for ROA, BOPO and NPM to the banking company's stock price on the Jakarta Stock Exchange affect insignificantly.