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INFLUENCE OF INTERNAL AND EXTERNAL FACTORS ON STOCK PRICE
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ABSTRACT

This study aimed to investigate the influence of internal factors and external partial and simultaneous to changes in stock prices. Internal factors used were Return on Equity (ROE), Cash Flow per Share (CFPS), and Net Asset Value (NAV). External factors used are exchange rates (exchange rate) and interest rates. Research conducted on 19 listed companies from 28 issuers listed banks in Indonesia Stock Exchange selected through purposive sampling technique that is consistent with the criteria listed there since 2004 until 2008, and also has a comprehensive financial reporting data. The research method used is associative method. The statistical methods used to test the hypothesis is simple and multiple linear regression, t test, F test and t test with a significance level of 5%

From the research results show that simultaneous internal factors and external have a significant effect on stock prices. This is shown from the F value 49.524 > F table 2.345. Partially, only the Net Asset Value and interest rates have a significant influence (t 15.092 > 1.987 t table). Meanwhile Return on Equity, Cash Flow per Share, exchange rate and interest rates have no significant effect on stock prices. Return on Equity has a value-t table -1.987 ≤ t ≤ 0.076 1.987 t table. Cash Flow per Share has a value-t table -1.987 ≤ t ≤ -0.066 1.987 t table. Exchange value has a value-t table -1.987 ≤ t ≤ -1.126 1.987 t table. While interest rates have a value-t table -1.987 ≤ t ≤ -0.567 1.987 t table.

Fields of Research: Finance, Investment

1. INTRODUCTION

Stock is one point which seemed very popular investment. Because people in general are familiar with stocks and how the procedures are easily understood. Shares in the short term can provide benefits through a stock transaction that could generate capital gains. Return is obtained from the difference between the purchase prices with the selling price of the shares. In the long term the stock can provide benefits through dividend income and the ability to own and control the issuer of the shares.

There are various ways to analyze the state of the company. Firm value can be indicated by an internal factor which is obtained from financial statement information
as well as external factors. Internal information can provide guidance to investors regarding capital allocation will be invested. Analysis can be done by observing the company's financial statement is a description of the performance of corporate functions. However external factors may be considered in any decision making.

This study uses several factors that can be examined both internally and externally as an independent variable. Internal factors used by the writer here is Return on Equity (ROE), Cash Flow per Share (CFPS), and Net Asset Value (NAV). External factors used are foreign exchange and interest rates. The stock price used as the dependent variable.

This research examines the influence of internal factors and external to the stock price either simultaneously or partially and also to know which ones more significant factor affecting the stock price. This research is expected to be used as reference material and if you want to do the analysis with related topics.

2. LITERATURE REVIEW AND HYPOTHESES

Many factors affect the investor in making investment decisions to avoid or minimize errors that result in losses. These factors can be either internal or external factors. Internal factors can be seen through the accounting information, and external factors that often influence the investment decision is the exchange rate and interest rate as a measure of the rate of return without risk.

Important factor to be considered by investors in making investment is the stock price and the variables that influence it. To analyze the performance of companies can use financial ratios that are divided into four groups: liquidity ratios, activity, debt, and profitability (Gitman, 2003). With such analysis the analysts tried to predict stock prices in the future by estimating the value of the fundamental factors that affect stock prices in the future, and apply the relationships of these variables in order to obtain the estimated share price (Husnan, 2001; 315). One form of processing accounting information is in the form of ratios (Houghton and Woodliff, 1997).

Many studies have claimed that a return on equity (ROE), cash flow per share (CFPS), and net asset value (NAV) effect on stock prices. This means that if the ROE, CFPS, and NAV up the stock price will rise and vice versa.

Investors often base their observations on the company relating to the acquisition of income or profit. Profitability currently provides information about the company's ability to generate internal funds. Profitability analysis provides a firm position at the moment and also a tool for planning and decision making (Penman, 2001). Piotroski (2000) states that profitability provides information for predict the prospects of future performance. Positive earnings trend that shows the company's ability to generate future cash flows. One indicator of profitability is the turnover of capital or return on equity (ROE). Rentability alone in this return on common stock equity is used to measure the level of profit generated from investment of shareholders. Some definitions of ROE is "The return on equity measures the return earned on the owner's investment in the firm" (Gitman, 2000; 145). Also there is another definition of "The relationship of annual after-tax earnings to shareholders equity Recorded
Investors see that the ROE is an indicator that can indicate management performance in enhancing shareholder wealth. Companies will be able to increase the ROE when the level of income generated from assets held constant. ROE reflects the possibility of profit to be gained by shareholders. Thus, a high ROE shows that the company has an opportunity to provide income for shareholders. Thus, the higher the ROE will have an impact on increasing the share price.

**H1: Return on equity (ROE) positive effect on stock prices**

Accounting information, which is also widely used in making investment decisions is cash flow, particularly cash flow from operations. Cash flow is useful for investors to know the ability of the entity to generate future net cash and compare them with short-term liabilities or long term. Cash flows from operations can be presented as a measure of performance because cash flows are not distorted compared with net income (Prastowo, 2002; 27).

*Cash Flow per Share* (CFPS) is one of the ratios of cash flows. This ratio is widely used by analysts in making investment. CFPS shows the flow of funds per share of outstanding common shares is more a reflection of the company's ability to generate cash and pay a dividend for every share in the future. It is usually substantially higher than the earnings per share (Gibson, 1992).

CFPS provided by operating activities less dividends and special shareholders divided by the number of shares outstanding. CFPS is a good indication about the company's ability to make decisions in capital expenditure and dividend payments. The greater the CFPS indicate that the company has a good condition. This condition will affect the decision-making by investors. Thus, the higher the CFPS will cause an increase in stock prices.

**H2: Cash Flow per Share (CFPS) has positive influence on stock prices**

The approach is also used in decision-making is determining the company's shares based on net worth and number of shares issued and outstanding. Company's net worth is the difference between all assets of the company's debts. Company's net wealth is seen as a conservative measure of liquidation value or in other words if the company is liquidated then the investor will get a share of stock prices obtained by the net asset approach (Francis, 1991; 251).

Formulation of the stock price using the net asset value approach (NAV) is by dividing the total net assets of the company by the number of shares outstanding. The higher the value of NAV, the better, because it indicates the level of benefits to be received by shareholders for greater asset Management Company for each share owned (Sasneti, 2006).

**H3: Net Asset Value (NAV) positive effect on stock prices**

Besides internal factors, external factors are also contributing in influencing firm
performance. These factors are included in the category of systematic risk and can not be avoided directly or diversified (Sunarinya, 2003). These factors include economic conditions, political, social, and government policy. Economic conditions, in this case, macroeconomic, are the dominant factor in influencing firm performance. The tight macroeconomic factors as the price are the exchange rate, for Indonesia, especially the rupiah against the dollar and interest rates.

Value is a measure of currency exchange rates that are expressed from the perspective of other currency. Quotation that represents the value of a foreign currency in domestic currency called direct quotation, while the quotation that represents the amount of foreign currency units per domestic currency is called indirect quotation.

Fluctuations in foreign exchange rates or exchange rates have a positive relationship with the issuer company's stock price, which is a relationship that will directly affect the company's stock price movements. Ibrahim (2000) states changes in stock prices that May affect the inflow and outflow of capital, which will result in changes in the currency values.

In the changing economic conditions, exchange rates also changed substantially. The value of the currency depreciates by significant will stimulate export and import activities, especially exports, because foreign importers will benefit from the rising value of the dollar. With the increase in exports also means increased cash flow exporter companies which will also affect the financial report and also the value of shares (Bambang and Adler, 2002).

**H4: The rupiah exchange rate significantly influences stock prices**

The next external factor is the interest rate. Interest rates may affect stock trades for causing competition between the fixed-income return. Is an interest rate yields on funds, Measured as percent per year (Samuelson & Nordhaus, 1995). The interest rate is a benefit of rate of return to investors because it lends funds to another party which is denoted as a percentage per annum. The interest rate offered by banks in Indonesia refers to the interest rate of Bank Indonesia Certificates (SBI) issued by Bank Indonesia.

SBI is one of the instruments of the central bank to control money supply and also an alternative to commercial banks as a secondary reserve, where a bank can invest its funds in the meantime. Under conditions of inflation, BI rate will be high. This was done to siphon funds from the community so that investment and consumption decreased and the central bank can control the money supply. Conversely, the SBI rate will be low in conditions increased investment.

SBI interest rate is a risk free investment. At the time interest rates rise, investors will be increased opportunity cost. Investors tend to compare the return that would be derived from shares and other instruments that are affected by interest rates (Muzaki, 2006). This opinion is in tune with Maysami and Koh (2000) Which explains the relationship between stock price with the interest rate by stating that the intuition behind the Relationship Between interest rates and stock prices is straightforward. The intuition behind the relationship between interest rate and stock prices is straightforward. And increase in the rate of interest raises the opportunity
cost of holding cash and is likely to lead to a substitution effect between stocks and other interest bearing securities. In other words, interest rates may affect stock trades because the cause of competition between stocks returns with fixed income.

**H5: The levels of interest rates significantly influence stock prices**

**3. METHODOLOGY**

The population in this study is all banking companies go public and has been listed on the BEI. Selection of sample firms in this study is determined by purposive sampling with the following criteria:

- The sample used was taken from the population of the banking company listed on the Stock Exchange from 2004 until the year 2008.
- Have the completeness of financial reporting data required for this research, and financial reporting period ending date is December 31.

Population taken in this research is 28 banking companies that have publicly traded and listed on the Indonesia Stock Exchange (BEI) in the year 2008. Based on the criteria requires the writer, the samples were 19 banking companies.

In this study the author uses the associative method to determine the relationship between the dependent and independent variables. This study uses quantitative data. Types of data used are secondary data. Data resources and www.idx.co.id www.bi.go.id

**Variables and Measurement Variables**

**Independent variables**

Internal factors:
- a. Return on Equity
  
  Comparison with the level of net income stockholders' equity
- b. Cash Flow per Share
  
  Funds flow to total outstanding common shares
- c. Net Asset Value
  
  Total net assets per share

External factors:

1. Exchange
  Changes in exchange rates, expressed in how many rupiah per U.S.-dollar, measured by the rate of exchange against the dollar at year end.

2. Interest rates
  Payments as a percentage of the amount of money invested in the form of deposits at the bank per unit of time, measured by the SBI interest rates at year end.

**Dependent Variables**

Stock prices, stock prices to carry out stock transactions, measured by the closing stock price at the end of the year.
Analysis Method

The analytical method used in this research is regression with a confidence level used is 95%. To determine whether internal and external factors influence on stock prices ceteris paribus regression performed with the following equation.

\[
\text{Share price} = \beta_1 + \beta_2 \text{ROE} + \beta_3 \text{CFPS} + \beta_4 \text{NAV} + \beta_5 \text{Kurs} + \beta_6 \text{SBI} + \epsilon
\]

Description:
Changes in stock price = stock price
ROE = Return on Equity
CFPS = Cash flow per share
NAV = Net asset value
Exchange = exchange rate of rupiah against the dollar
SBI = interest rate of Bank Indonesia Certificate

4. FINDINGS AND DISCUSSION

Regression Testing Assumption
Autocorrelation test results

Model Summary\(^b\)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>R Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.858(^a)</td>
<td>.736</td>
<td>.721</td>
<td>784.760</td>
<td>1.911</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), SBI, CFPS, NAV, ROE, KURS
b. Dependent Variable: STOCK PRICE

Source: the data processing
**Multicolinearity Testing Results**

**Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Co linearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1293.697</td>
<td>994.569</td>
</tr>
<tr>
<td></td>
<td>ROE</td>
<td>.169</td>
<td>2.230</td>
</tr>
<tr>
<td></td>
<td>NAV</td>
<td>2.448</td>
<td>.162</td>
</tr>
<tr>
<td></td>
<td>CFPS</td>
<td>-2.913E-5</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>KURS</td>
<td>-1.32</td>
<td>.117</td>
</tr>
<tr>
<td></td>
<td>SBI</td>
<td>-26.964</td>
<td>47.569</td>
</tr>
</tbody>
</table>

**Scatterplot**

*Dependent Variable: HARSA BUMAM*

Based on the classical assumption that is used shows that there is no autocorrelation, no symptoms of multicollinearity, and not experiencing problems heterocedasticity.
Results of significance testing linear relationship can be seen in the following table:

<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>
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<tbody>
<tr>
<td>Regression</td>
<td>1.525E8</td>
<td>5</td>
<td>3.050E7</td>
<td>49.524</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>5.481E7</td>
<td>89</td>
<td>615848.195</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.073E8</td>
<td>94</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1</td>
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<td>.197</td>
<td></td>
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<tr>
<td>ROE</td>
<td>.169</td>
<td></td>
<td>.004</td>
<td>.076</td>
<td>.940</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFPS</td>
<td>-2.913E-5</td>
<td></td>
<td>-.004</td>
<td>-.066</td>
<td>.948</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAV</td>
<td>2.448</td>
<td></td>
<td>.857</td>
<td>15.092</td>
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<td></td>
</tr>
<tr>
<td>KURS</td>
<td>-.132</td>
<td></td>
<td>-.071</td>
<td>-1.126</td>
<td>.263</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBI</td>
<td>-26.964</td>
<td></td>
<td>-.036</td>
<td>-.567</td>
<td>.572</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: stock price

From the table above shows that the NAV significant variable with a significance level of 5%, while for variable-ROE, CFPS, Exchange, and SBI does not show have an influence on stock prices.
Tests for coefficient of determination is used to test how closely the relationship between variables ROE, CFPS, NAV, EXCHANGE, and SBI on Stock Price. The test results are as follows:

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a. Predictors: (Constant), SBI, CFPS, NAV, ROE, KURS

b. Dependent Variable: STOCK PRICE

From the table above shows that the F value of 49.524 shows that the regression model can be used to predict stock prices.

**Hypothesis Testing**

The test results of multiple regressions on the effect of ROE, CFPS, NAV, currency, and interest rates on stock prices is presented in the following table:

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b. Predictors: (Constant), SBI, CFPS, NAV, ROE, KURS

Table above shows the adjusted R square value of 73.6%, 73.6%, which means that stock prices can be explained by variable-internal factors and external variables, while the rest is explained by other causes.

5. CONCLUSIONS AND IMPLICATIONS

Based on the research and discussion about the influence of internal factors and external to the 19 banking companies listed in Indonesia Stock Exchange in the year 2004 to 2008 on stock prices, it can be concluded as follows. Internal factors and external influences together (simultaneously) to the company's stock price. Thus the analysis using all of the factors used in this study can be considered as a reference and to make decisions in relation to this matter. However, if an individual (partial), only the variable Net Asset Value (NAV) course which has an influence on stock prices. This is due to the ability of investors to see how big a company for each share of ownership and control over the company's net assets. Return on Equity (ROE) has no significant influence was due to short-term profit is not considered too significant to investors. Cash Flow per Share (CFPS) has no effect on stock prices; it is because that the amount of available cash in a company was not considered a dominant factor by the investors. Exchange rate has no significant effect since most transactions are still conducted using predominantly domestic currency, and also the absence of significant exchange rate fluctuations. Interest rates also have no effect because investors assume that rates are only for short-term investments and can not be compared with the shares if the investor has the desire to own and control the company.

Limitations of this study only uses a number of factors both internally and externally that are considered relevant to the goals of this research, which studied only during the period of five years from 2004 to 2008, and the sample used only companies that meet the criteria. For further research is needed to obtain more satisfactory results. Therefore, the authors propose some suggestions related to this research, among others:

1. For Companies
   For the issuers are expected to be one consideration in carrying out its operations. Determine the factors that can be increase the interest and attractiveness to investors in making economic decisions.

2. For Investors
   For investors can be used as a reference material and provide additional information in the analysis before making investment decisions about which ones are considered worthy to be takes.

3. For Other Researchers
   For other researchers who want to conduct research with a similar topic, this study can be use as reference material and comparison material with further research.
Also expected to further research can improve existing deficiencies in this study with:

a. Conduct further research about the possibility of other factors that will affect a company's stock price either internally or externally.
b. Conducting research using different samples, at different periods, and the number of samples used for the later in order to obtain more accurate results.

REFERENCES


Ibrahim, H Mansor, 2000, Cointegration and Granger Causality Test of Stock Price and Exchange Rate Interactions in Malaysia.


Website

www.bigo.id
www.google.com
www.idx.co
www.wikipedia.org
www.yahoofinance.com