The Effect of Gains/Losses from Changes in Fair Value of Financial Instruments on the Value Relevance and Risk for Investor

Rini Indriani[1,*], Eddy Suranta[1], Lara Carina[1], and Asikum Wirataadmaja[2]

[1]Fakulty of Economics and Bussines, University of Bengkulu, Bengkulu, Indonesia
[2]Fakulty of Economics and Bussines, Universitas Kristen Maranatha, Indonesia

Abstract. The aims this study is to determine the effect of disclosure gains / losess changes in fair value of financial instruments on stock returns and beta shares of the company. Based on the sampling method used in this research is purposive sampling obtained a sample of 54 financial companies listed on the Indonesia Stock Exchange. Furthermore, the data were analyzed using panel data regression using a fixed effect and multiple linear regression. The results of the research can prove that the information gains / losses changes in fair value of financial instrument has significant positive effect on return, and a significant negative effect on the company's stock beta. This result shows that the information gains / losses changes in fair value of financial instrument has value relevance and can reduce the risk for investors. Based on these results, indicated that gains / losses changes in fair value of financial instruments is information that can change the decisions of investors.

Keywords: Gains · Financial · Instruments · Value relevance · Risk relevance

1 Introduction

The adoption of standards regarding fair value accounting requires companies to assess each financial instrument owned based on the standards issued by DSAK. Valuation based on fair value results in the company having to recognize the gains/losses caused by changes in fair value and reported in the company's income statement that will have an impact on the reported profits of the company. Thus, it raises the question whether the information regarding gains/losses due to changes in the fair value of financial instruments becomes relevant information for investors or vice versa.

Information conveyed by companies through financial statements such as reporting gains/losses on changes in the fair value of financial instruments is a signal to market participants. Where, in signal theory it is stated that these signals will be captured by market participants and reflected in the company's stock price (Arifin, 2007). Nursiah and Nuryani (2014) and Yong et al. (2012) states that gains/losses in changes in fair value provide a positive signal for investors in estimating the volatility of company profits. This shows that information on profit/loss on changes in fair value has value that is relevant to investors in making decisions and risks for investors. Barth et al (1996) also revealed that gains and losses at fair value become relevant value when an entity's risk increases. Penman (2011) in Nursiah and Nuryani (2014) using the

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principle of one to one to illustrate that the use of fair value accounting is more appropriate for banks. The argument is that the gains/losses resulting from fair value contain useful information if reported objectively.

Research relating the advantages/disadvantages of changes in fair value is mostly concerning changes in fair value of liabilities. As Yong et al. (2012) found a positive relationship between gains (losses) changes in the fair value of liabilities with stock returns and stock risk. This opinion is also strengthened by Nurasiah and Nuryani's (2014) research which states that the gains and losses of changes in the fair value of liabilities have a value relevance to stock returns and have a positive relationship with stock risk. The results of two studies show that the profit (loss) changes in the fair value of a liability relate to the profit (loss) of the company's equity holders. However, research by Barth et al., (2008) states that changes in credit risk negatively affect equity returns. The results indicate that the recognition of profit/loss changes in fair value of liabilities has a negative effect on the company's equity holders.

Meanwhile, Petroni and Wahlen (1995) found that the relevance and reliability of fair value estimates are only for actively traded equity and treasury investments, compared to bond securities and other debt instruments. But not consistent with Barth (1994), Petroni and Wahlen (1995) found a positive relationship between stock returns and changes in fair value for insurance companies. This research shows that changes in the fair value of investments are relevant values in the insurance industry's liabilities. Research Lim et.al. (2011) using the return model and international banking data found that the relevance of profit/loss and fair value is crucially dependent on the economic characteristics and accounting choices of the bank.

From this description, this study will measure the relevance of value using stock returns whereas, the risk implications are measured using beta stocks. This study refers to research conducted by Yong et al. (2012) which examines the implications of FAS 159 fair value liability gains and losses for relevant values and relevant risks of financial companies. However, in this research, besides looking at the gains / losses due to changes in the fair value of liabilities, it will also see the advantages / disadvantages of changes in fair value in terms of financial assets, such as the research conducted by Lim et al (2011). Also, in this study using data in the financial sector that has applied PSAK No. 55 (2014 Revision), which recognizes gains (losses) in its financial instruments and is listed on the Indonesia Stock Exchange (IDX).

2 Literature Review

Accounting information is said to be relevant if the information can affect investors in changing decisions. Increased information competition in the capital market causes the importance of knowing important information in financial statements (Nursiah and Nuryani, 2014). Likewise, the adoption of PSAK 55 requires companies to measure their financial instruments using fair value. Where, it will have an impact on companies recognizing the existence of gains / losses due to changes in the fair value of their financial instruments in the income statement. Then, information about the gains / losses of fair value will be information that will be given a response by the market through the stock price.

In accordance with previous research conducted by Yong et al. (2012) which states that there is a positive relationship between gains and losses in changes in the fair value of liabilities with stock returns after being controlled with earnings before gains and losses. Which means that reporting the gains and losses on changes in the fair value of this liability has a relevant value for investors in making decisions.

In line with Yong et al. (2012), Nursiah and Nuryani (2014) also found a significant positive relationship between gains/losses in changes in the fair value of financial instruments with stock returns which also indicate that the information has relevant value. Research conducted by Lim et al. (2011) more generally, looking at the side of financial instruments also found that there are relevant values of fair value gains/losses which are also influenced by economic characteristics and accounting choices. So the one hypothesis in this study is

H1: Gain/Loss of changes in the fair value of financial instruments having relevant values.

Furthermore, relevant information if the information has a confirmatory and predictive value so that investors will see the materiality in the information that will make it possible to change investor decisions that pose a risk for investors themselves. Information about fair value becomes relevant for high risk banks because fair value provides two types of information, namely: 1) information about the company's ability to make profits from arbitration activities and information about risk, 2) speculative trading activities tend to be an important part of bank business operations that more risky (Demirguc-Kunt and Huizinga, 2009).

Financial companies that are more at risk can generate capital gains from arbitration activities which then gains (losses) at fair value can affect the success of the company in the activity. As revealed by Kieso et al., (2011: 893) that companies that choose financial instruments that are measured through the income statement have a profit motive that will be obtained from price changes. This can lead to volatility of the company's profits as a result of the recognition of gains / losses in changes in the fair value of financial instruments. So investing in companies that apply fair value as a measurement of their financial instruments is considered to have high market risk. This research will use beta as a systematic measurement of risk. Where, the higher a security, the more sensitive the security is to market changes. And the greater the market risk of a company the more uncertain future returns so the lower the company's value in the eyes of investors (Kurnia and Sufiyanti, 2015).

Like the research conducted by Yong et al. (2012) who found that there was a positive relationship between revenue volumity resulting from the reporting of FAS 159 gains and losses on market risk, which indicated that measurements using fair value had risks that were relevant to investors in estimating the economic volume of the company. In line with research conducted by Hodder et al. (2006) which also states that the income volumes of full-fair-value have a positive effect on the market-beta model which means that information of fair value has risks that are relevant to investors. Nursiah and Nuryani (2014) also said that net profit after profit / loss changes in the value of liabilities carry relevant risks. So the second hypothesis of this study is

H2: Gain/loss of changes in the fair value of financial instruments having relevant risks

3 Research Methodology

This research is included in a positive paradigm that uses a quantitative approach and is an empirical research (empirical research), intending to test the proposed hypothesis. The observation unit (population) in this study is financial companies listed on the Indonesia Stock Exchange in the period 2011-2015. The data collection method in this study was done by purposive sampling as presented in Table 1 related to the research sample.

Table 1. Number of Research Samples based on Criteria.

Criteria Samples	Number of Companies	%
Financial companies listed on the Indonesia Stock Exchange (IDX) until 2012-2015	65	100
Companies that do not report financial statements in a row	(11)	(16,92)
Financial statements are presented in dollars	(0)	(0)
The number of companies that meet the research criteria and serve as research samples	54	83,03
Quarterly observations (4 x 4)	16	
Number of Samples hypothesis 1	**864**	
Observation based on year	4	
Number of Samples hypothesis 2	**216**	

Source: Secondary data processed.

The multiple regression equation model that will be examined in hypothesis testing is as follows:

1) To test hypothesis one (H_1) about the relevance of the value of profit / loss changes in fair value used multiple linear regression analysis with the formula:

$$RET = \alpha_0 + \alpha_1 NI_{FinancInstru_{it}} + \alpha_2 \text{FinancInstru}_{tnet_{it}} + \alpha_3 EPS + \varepsilon_{it}$$

2) To test hypothesis two (H_2) about the relevance of the value of profit / loss changes in fair value used multiple linear regression analysis with the formula:

$$BETA_{it} = \beta_0 + \beta_1 \sigma(NI_{it}) + \beta_2 \sigma(NI_{\text{FinancInstru}_{it}}) + \alpha_{it}$$

Explanation	
α_0 dan β_0	Constanta
$\alpha_1, \alpha_2, \alpha_3$ dan β_1, β_2	Coefficient Regression
ε_{it} dan α_{it}	Error
RET	Stock returns five days before trading and five days after the publication of the company's financial statements in year t, consistent with the research of Barth *et al.* (2008), Yong *et al.* (2012), and Nursiah dan Nuryani (2014)
$NI_{FinancInstru_{it}}$	Net profit for the year after deducting profit/loss from changes in fair value unrealized by the company in year t, scaled by total assets in year t
$\text{FinancInstru}_{tnet_{it}}$	Gains / losses from changes in fair value of financial instruments scaled by total assets in year t

EPS	Earnings per share of company year t
$BETA_{it}$	Standard Deviation of company returns in year t by using the adjusted market beta model, consistent with the research of Yong et al (2012), Lim et al (2011), Hodder et al (2006), and Nursiah and Nuryani (2014),
$\sigma(NI_{it})$	Standard deviation of net income for year t
$\sigma(NI_{\text{FinancInstru}_{it}})$	Standard deviation of net income minus gains/losses on changes in fair value of financial instruments that have not been realized in year t.

Hypothesis testing will be used multiple regression analysis using software for each hypothesis. Then the t-test value will be seen to determine whether a hypothesis is accepted or rejected.

4 Result and Discussion

Table 2 presents descriptive data statistics in this study, which consists of minimum, maximum, average, and standard deviation of variables in the research equation.

Table 2. Descriptive Statistics.

Variable Code	n	Min	Max	Mean	StDev
Equation 1					
Ret	864	-1,89394	0,062575	-0,001784	0,020885
NIFinancInstru	864	-0.302765	0.162089	0.017168	0,032737
FinancInstru	864	-0.142116	0.073462	0.0000070	0,016438
EPS	864	-126,8	1707	102,2276	177,9248
Equation 2					
Beta	216	0,014906	0,399664	0,087496	0,062152
Stdevni	216	0,000172	0,105331	0,012784	0,014885
StdevniFinancInstru	216	0,000114	0,105331	0,12991	0,015199

Source: Secondary data processed.

Hypothesis 1 test results using the fixed effect model model are shown in Table 4. Equation 1 obtained an F value of 2.978477 with a significance of 0.000000 indicating that this equation model is fit and can be used to test hypotheses. Equation 2 which uses multiple regression equations, has a statistical value of F in this equation model is 3.818976 with a significance level of 0.024377, a significance value of F below 0.05 indicates that the model in this study is fit so that it can be used to test hypotheses.

Table 3. Hypothesis Testing Results.

Variable	Direction Prediction	Coef.	Sig	Conclusion
Equation 1				
Constanta		-0,000021	0,8688	
NiFinancInstru		0,008024	0,0351	
FinancInstru	**(+)**	**0,026670**	**0,0440**	**Accepted**
EPS		0,000002	0,0080	
R Square		0,174448		
Adj R Square		0,115879		
F		2,978477		
Sig		0,000000		
Equation 2				
Constanta		0,056533	0,0000	
σNI	(+)	-1,016796	0,0130	Rejected
σNiFinancinstru	(+)	0,850722	0,0310	
R-Squared		0,053926		
Adj. R-Squared		0,039805		
F		3,818976		
Sig		0,024377		

Source: Secondary data processed.

The results of testing the first hypothesis have a coefficient value of α2 of 0.026670 with a significance level of 0.0440 where, the value is smaller than 0.05. So it was concluded that the information gains/losses on changes in the fair value of financial instruments have a significant positive effect on stock returns. This empirically proves that information on profit/loss changes in fair value of financial instruments is relevant information so that it can influence investors' investment decisions. So the **first hypothesis** which states that the gains/losses of changes in the fair value of financial instruments have a value relevance to investors is otherwise **accepted**. The test results of net profit after profit/loss changes in the fair value of financial instruments have an effect on return with a positive coefficient direction, namely 0.008024 with a significance of 0.0351 (below 0.05). This shows that net profit after profit/loss changes in fair value of financial instruments have a significant positive effect on company stock returns. The results of testing earnings per share (EPS) proved to have a significant positive effect on stock returns seen from the coefficient value of 0.000002 with a significance of less than 0.05 ie, 0.0080.

Coefficient value β1 which shows the relationship between net income in which there is information of profit / loss changes in the fair value of financial instruments is -1.016796 with a significance value of 0.0130 (p-value <0.05). These results indicate that there is a significant negative relationship between net income and information on gains/losses in changes in fair value of the stock beta. This indicates that the gains/losses on changes in the fair value of financial instruments are able to assess the

volatility of a company's earnings which allows investors to assess the risk so that it will reduce the risk. So it can be concluded that hypothesis 2 in this study was **rejected**. However, in contrast to net income after deducting the gains/losses in changes in the fair value of financial instruments have a coefficient value of 0.850722 with a significance of 0.0310 (less than 0.05). These results indicate that net income without profit/loss information changes in the fair value of financial instruments has a significant positive effect on beta. This result shows that net income without information on profit/loss changes in fair value of financial instruments has relevant risks for investors.

Discussion of the Effect of Gains/Losses From Changes In Fair Value of Financial Instruments on The Value Relevance and Risk For Investor. Based on hypothesis testing profit/loss information due to changes in the fair value of financial instruments to stock returns is indicated as relevant information for investors, and can reduce the volatility of company profits so that investors can use them in assessing the company's economic risk. nformation on profit / loss due to changes in fair value of financial instruments can be used by investors in making investment decisions. This is in accordance with the objectives of the standard setters where, it is expected that the recognition of gains/losses in changes in the fair value of financial instruments can lower earnings volatility (Nursiah and Nuryani, 2014). So that information is more reliable by investors in predicting the company's financial performance and is useful in making investment decisions.

The test results regarding the risk of informing profit/loss due to changes in the fair value of financial instruments, are not in line with the research of Hodder et al (2006) and Yong et al (2012). Based on the average of the standard deviation values of earnings where, with information on gains / losses in changes in fair value therein, it appears that the average of the standard deviations is small which indicates that information on gains/losses on changes in fair value of financial instruments has very little risk. This is confirmed by the average of the standard deviation of earnings after being reduced by the gain/loss of changes in fair value having a higher average. Indicates that profits without information on gains/losses on changes in fair value are more risky than profits wherein there is information on gains/losses on changes in fair value. This result indicates that information on profit/loss changes in fair value of financial instruments does not provide risk for investors in investing because investors are able to assess the risk.

5 Conclusion

Basically the purpose of this study is to empirically examine the effect of gains / losses on changes in the fair value of financial instruments on the value relevance and the relevance of risk for investors. Based on the results obtained from data processing and analysis using multiple regression analysis with the help of Eviews 9 software, the following conclusions can be drawn:

1) Gains/losses in changes in the fair value of financial instruments have a significant positive effect on stock returns. That is, information on profit/loss changes in the fair value of financial instruments that are relevant to investors.

2) Gains/losses on changes in fair value of financial instruments have a significant negative effect on stock beta. That is, information on profit/loss changes in the fair value of financial instruments is able to reduce risk for investors.

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