

# The effect of leverage, size, liquidity, and operating cash flow on fixed assets revaluation

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## ABSTRACT

This study aims to empirically examine the effect of leverage, size, liquidity and operating cash flow on fixed assets revaluation, using all non-financial companies, performing assets revaluation within 2012-2015 as listed on Indonesia Stock Exchange (IDX) with upward revaluation category. They were analyzed using Path analysis (PLS) without requiring classical assumption and normality test. It shows that leverage affects fixed assets revaluation. Large companies tend to display earnings reports that are not too large to reduce their political costs. With fixed assets revaluation, depreciation value is recalculated and the company's profit is reduced. Operating cash flow also affects fixed assets revaluation, a company requires funds for paying their obligations. In addition, the company also needs substantial funds to finance the appraisal service fees, audit fees and final tax payments. Yet, liquidity has no effect on fixed assets revaluation. This study finds that within the last four years, the number of the asset revaluation model users that report in Other Comprehensive Income Statement has continued to grow. By reporting fair value, it is expected to become qualified financial statement. It suggests that the number of variables on assets revaluation be used, including more sample by involving revaluation and non-revaluation companies.

## ABSTRAK

Penelitian ini menguji secara empiris pengaruh leverage, ukuran, likuiditas dan arus kas operasi terhadap revaluasi aset tetap, dengan responden semua perusahaan non-keuangan yang melakukan revaluasi aset pada 2012-2015, sesuai di Bursa Efek Indonesia (BEI) dengan kategori revaluasi ke atas. Kemudian, dianalisis dengan Path Nalaysis (PLS) tanpa memerlukan asumsi klasik dan uji normalitas. Dinyatakan bahwa leverage berpengaruh pada revaluasi aset tetap. Perusahaan besar cenderung menampilkan laporan pendapatan yang tidak terlalu besar untuk mengurangi biaya politik mereka. Dengan revaluasi aset tetap, nilai penyusutan dihitung ulang dan keuntungan perusahaan berkurang. Arus kas operasi berpengaruh pada revaluasi aset tetap, perusahaan membutuhkan dana untuk membayar kewajibannya. Selain itu, mereka juga butuh dana yang cukup besar untuk membiayai biaya layanan penilaian, biaya audit dan pajak final. Namun, likuiditas tidak berpengaruh pada revaluasi aset tetap. Dalam empat tahun terakhir, jumlah model revaluasi aset yang dilaporkan dalam Laporan Penghasilan Komprehensif Lain terus meningkat. Dengan melaporkan nilai wajar, diharapkan dapat menjadi laporan keuangan yang berkualitas. Disarankan penelitian selanjutnya pada jumlah variabel pada revaluasi aset digunakan, termasuk lebih banyak sampel dengan melibatkan perusahaan revaluasi dan non-revaluasi.

## 1. INTRODUCTION

Fixed assets, under the Statement of Financial Accounting Standards (PSAK) No. 16 revised in 2007,

can be assessed using revaluation value, as an alternative measurement value. The use of fixed asset value does not reflect the current value be-

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cause there is a loss of relevance and it needs to be analyzed more carefully. The convergence of IFRS (International Accounting Standards) into SAK (Indonesian Financial Accounting Standards) has a major impact on the business world, particularly with the financial statements and other accounting data. Indonesia's IFRS-based Financial Accounting Standards are considered more capable of improving the quality of financial reporting standards and the comparability of financial statements.

By using quality financial reports, decision-makers can use it as a useful and timely information. In addition, fixed asset measurements currently tend to affect corporate management decisions. Fair value is the relevant value as the basis of the asset in the current market price. In this case, an asset revaluation is used for recalculating a company's fixed assets based on its current fair value. Besides that, comprehensive income consists of changes for using the fair value model and other comprehensive income positions including unrealized gains and losses. Meanwhile, the portion which presents the realized gains or losses is referred to as income statement.

The research by Ahmar (2016) during 2012-2014 (3 years) show that no more than 10% of companies use fixed assets revaluation for 3 years during the enactment of IFRS and PSAK, related to the revaluation option based on market value.

The result in Graph 1 provides shows that asset revaluation is quite attractive because there are still few companies that perform asset revaluation. By doing so, they can drive the factors that make the companies perform asset revaluation method for analysis. Also, a research by Andison (2015) found that Leverage has a positive and significant effect on asset revaluation. It is also supported by Manihuruk (2015) showing that companies with larger level of debt will revalue their fixed assets. Companies with high level of leverage tend to perform asset revaluation to increase loan capacity (Jaggi & Tsui 2011 and Barac & Sodan 2011). However, the studies conducted by Yulistia (2012) and Seng and Su (2010) find that leverage has no effect on fixed assets revaluation. They argue that Leverage is not a driving factor for a manager to perform upward revaluation, as the lenders may exclude revaluation as a basis for calculating the debt capacity obtained by company.

Another indicator in other studies is that firm size that serves as a proxy of political factors, in which larger companies tend to perform fixed asset revaluation with the aim of reducing

corporate profits and political costs (Tay 2009). Meanwhile, in other studies, the firm size cannot be explained as the driving factor for managers to perform fixed asset revaluation because the company's profits will be reduced due to the impact of depreciation expenses on the revaluated assets, while the asset will continue to grow. This makes the manager and the company need to consider the benefits that will arise by performing fixed asset revaluation (Yulistia 2012), Seng & Su (2010).

Companies that have low liquidity rates will choose to perform revaluation method, as seen from the quick ratio (Cheng & Lin 2009) and (Barac & Sodan 2011). They argue that the revaluation helps provide more actual information about the amount of cash that can be accepted from the asset sales, thus helping to increase the company's lending capacity as well as reducing borrowing costs. The studies conducted by Tay (2009) and Andison (2015) find the existence of a negative influence between liquidity and asset revaluation. The higher the liquidity value, the lower the asset revaluation value.

Companies with a decrease in cash flows tend to perform assets revaluation (Cotter & Zimmer, 1995) and (Barac & Sodan 2011). Cotter and Zimmer (1995) argue that upward revaluation is a signal of higher value in a company's assets so as to convince the lenders about the company's ability to pay its debts. Meanwhile, Seng and Su (2010) fail to prove this in New Zeland as well as Yulistia (2012) in Indonesia. Therefore, this research is intended to examine the Effect of Leverage, Size, Liquidity, and Operating Cash Flow on Fixed Assets Revaluation.

## 2. THEORETICAL FRAMEWORK AND HYPOTHESIS

### Signaling Theory

Signaling theory is a signal of information needed by investors to consider and determine whether to invest their shares or not in the company concerned (Suwardjono 2005). Managers are generally motivated to communicate good information about their company to the public as quickly as possible, such as through press conferences. However, parties outside the company do not know the truth of the information submitted. If the managers can give a convincing signal, the public will be impressed and this will be reflected on the price of the security.

By performing fixed assets revaluation, the company can make the assets value information

complied with the fair value and market value. This has a positive impact on the true value of assets for the company, and is expected to attract investors. In addition, in accordance with its benefits, revaluation can become a signal to increase shareholder confidence, creditor trust and tax savings.

#### **Fixed Assets Revaluation**

Fixed assets revaluation is a review of the asset value and an adjustment of the asset book value with the current value (Brown et al.1992). If an increase in the amount of assets is as a result of revaluation, the increase is recognized in other comprehensive income and is accumulated in equity in the section of revaluation surplus. However, the increase is recognized in profit and loss up to the amount of impairment in the same asset due to the previously recognized revaluation in profit or loss. The reason underlying the decision to perform asset revaluation by the company is to ensure that the fair value of the company's fixed assets is reflected in the financial statements.

#### **Leverage**

Leverage describes all the company's assets and the financial risks that will be the burden of the company in the future and ultimately affect revenue. Companies that use high debt structures to finance their investments are considered to be at risk (Army 2013). The leverage ratio becomes a consideration for companies in deciding whether to perform fixed assets revaluation or not. Upward revaluation of fixed assets will increase book value of total asset. This will improve creditor confidence as a result of improved financial ratios, especially debt to equity or debt to assets ratio.

#### **Firm Size**

Political costs are often associated with firm size. Previous studies used firm size as a proxy of political factor (Lin and Peasnell 2000). According to Seng and Su (2010), firm size is an important factor in company's decision to revalue the assets. Studies conducted in other countries found that large companies performed fixed asset revaluation (Brown et al. 1992; Tay 2009; Seng and Su 2010; Iatridis and Kiligiots 2012), while studies in Indonesia did not find the effect of firm size on company's decision to perform fixed asset revaluation (Yulistia et al. 2012, Nurjanah 2013), except for the study conducted by Khairati (2015) that found the effect of firm size on asset revaluation option at non-manufacturing company in Indonesia.

#### **Liquidity**

Liquidity is the ability of assets to be quickly sold or turned into cash (Martin et al. 1993). Liquidity is the ratio to be used in this study which has an influence on the revaluation decision. One of the liquidity ratios is known as current ratio where the result of this ratio is obtained from current assets divided by current liabilities. This ratio can be seen as an indicator of the strengths and weaknesses of corporate finances in a period.

#### **Operating Cash Flow**

All profit-related transactions reported in the income statement are classified into operating activities. The amount of cash flows generated from operating activities is an indicator that determines whether the company's operations can generate sufficient cash flow to repay the loan, maintain the operating capability of the company, pay dividends and make new investments without relying on external sources of funding.

#### **Hypothesis Development**

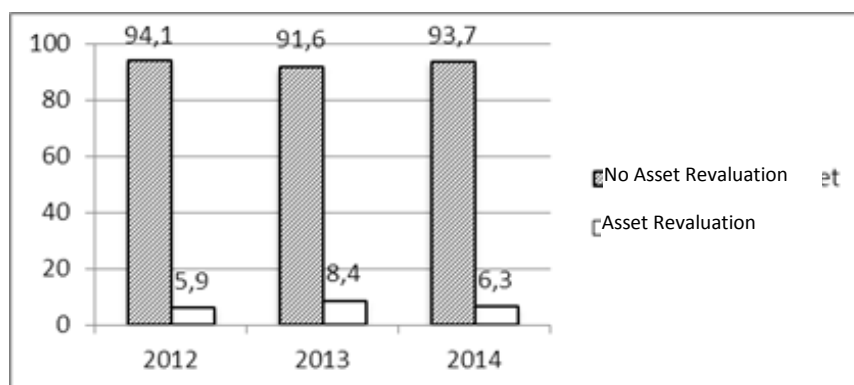
##### **The Effect of Leverage on Fixed Asset Revaluation**

The upward revaluation of fixed assets will increase the book value of total assets. This will improve creditor confidence as a result of improved financial ratios, especially debt to equity or debt to assets ratio. As a result, the lending party will loosen its limits and lower the interest rate on the debt. Seng and Su, (2010) and Andison (2015) find that Leverage has a significant positive influence on asset revaluation. This result is supported by the research conducted by Manihuruk (2015), that companies with larger debt levels will perform fixed assets revaluation. Companies with high leverage tend to perform revaluation to increase loan capacity (Jaggi & Tsui 2011 and Barac & Soudan 2011). Based on the above studies and theories, the hypothesis can be formulated as follows:  
H1: Leverage rate has an effect on fixed assets revaluation.

##### **The Effect of Firm Size on Fixed Asset Revaluation**

Studies conducted in other countries found that larger companies tended to perform fixed asset revaluation with the aim of reducing corporate profits and political costs (Tay 2009). Large companies paid small amounts of dividends for reinvestment of capital, and used fixed asset revaluation to strengthen their financial position (Iatridis & Kilirgiotis 2011).

**Graph 1**  
**The Development of Fixed Assets Revaluation in Indonesia**



**Table 1**  
**Sampling Criteria**

No	Explanation	Number
1	Non-financial companies that are listed on IDX and perform fixed asset revaluation during 2012-2015	83
2	Companies that present complete data	72
3	Companies that perform downward revaluation	8
	Final samples tested	64

For lowering the government political pressure or trade unions, large companies would avoid high profit reporting. Upward Asset revaluation is an effective way to reduce earnings reporting through increased depreciation expense as a result of an increase in asset revaluation (Seng and Su 2010). Based on the above studies and theories, the hypothesis can be formulated as follows:

H2: Firm size has an effect on fixed assets revaluation.

#### **The Effect Liquidity on Fixed Assets Revaluation**

Companies with low liquidity will choose the revaluation method seen from their quick ratio (Cheng & Lin 2009). The results are also supported by the studies conducted by Tay (2009) and Barac & Sodan (2011). They found that revaluation helped provide more actual information about the amount of cash accepted from asset sales, thus helping to increase the company's lending capacity as well as reducing borrowing costs. Revaluation method is likely to be conducted by the companies with low liquidity, while the companies with high liquidity do not need to perform fixed asset revaluation. Based on these findings, the hypothesis is formulated as follows:

H3: Liquidity has an effect on fixed assets revaluation.

#### **The Effect of Operating Cash Flows on Fixed Asset Revaluation**

Company manager has been very familiar with negative changes in managing his operating cash flow. The company's lending capacity depends not only on high or low leverage, but also on the company's ability to repay its debt. Cotter and Zimmer (1995) argue that upward revaluation is a signal of higher value on a company's assets so as to convince the lender of the company's ability to repay its debt. Companies that perform asset revaluation will experience a decrease in operating cash flow (Cotter and Zimmer, 1995; Barac and Sodan 2011). Based on these findings, the hypothesis can be formulated as follows:

H4: Operating cash flow has an effect on fixed asset revaluation.

### **3. RESEARCH METHOD**

#### **Population and Sampling Technique**

The population of this study is all companies, other than financial and banking sectors, listed on the Indonesia Stock Exchange (IDX) in 2012 - 2015 which reported Other Comprehensive Income and performed fixed asset revaluation within the year of study. The reason is that the companies already implemented IFRS in 2010 mandatorily. Sampling technique was conducted using purposive sampling method, a sampling technique taken intentionally with criteria as shown in Table 1.

**Table 2**  
**Table of Operational**

Variable	Measurement	Scale	Reference
Fixed asset revaluation (y)	Measured using the natural logarithm of the total revaluation value of the OCI report	Ratio	
Leverage (x1)	Leverage = Total liabilities / Total tangible assets prior to the revaluation adjustment	Ratio	(Seng and Su 2010)
Firm size (X2)	Measured using natural logarithm of total Assets prior to the revaluation adjustment	Ratio	(Seng and Su 2010)
Liquidity (X3)	Current ratio = current assets / current liabilities	Ratio	(Barac & Sodan 2011)
Operating cash flow (X4)	Comparison between current and previous year Cash flow	Ratio	Julie Cotter and Ian Zimmer (1995)

**Table 3**  
**Descriptive Results of Asset Revaluation**

Asset Revaluation (In Billion of Rupiah /IDR)			
Year	Mean	Min	Max
2012	654.65	4.89	2,014.86
2013	236.72	13.41	2,035.25
2014	275.11	0.19	2,297.90
2015	1,034.72	0.53	17,040.44
Total	550.30	4.76	5,847.11

Source: Processed data.

This study uses secondary data, taken by downloading from the Indonesian Stock Exchange data center at [www.idx.co.id](http://www.idx.co.id).

#### Operational of Variables

Endogenous variable in this research is fixed assets revaluation by using absolute value of revaluation, while exogenous variables are leverage, firm size, liquidity, and operating cash flow. More details are described in Table 2.

#### Data Analysis Method

The measurement of constructs and the influence between the research variables will be assessed using Partial Least Square (PLS) with the WarpPLS 4.0 Program. The PLS allows for the modeling of structural equations with relatively small sample and does not require normal multivariate assumptions.

### 4. DATA ANALYSIS AND DISCUSSION

#### Sample Description

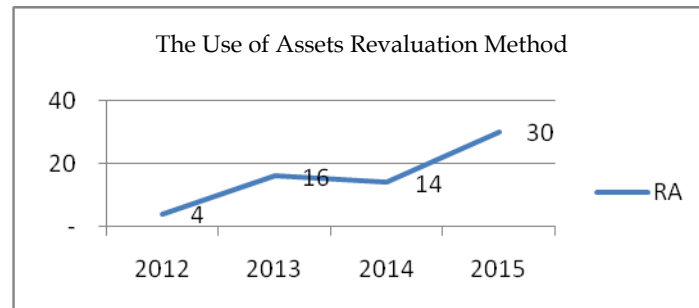
*Asset Revaluation:* Asset revaluation refers to a review of the asset value and an adjustment of asset book value with the current value (Brown et al.1992). If the recorded amount of asset increases as a result of revaluation, the increase is recognized in other comprehensive income and accumulated in equity in the revaluation surplus section.

Based on Table 3, there are 64 data obtained in four years. And in four years of research the average total value of fixed asset revaluation was IDR 550.30 (in billions), with the average lowest value of IDR 0.53 (in billions), and the highest value of IDR 17,040.44 (in billions). The largest average amount was achieved in 2015, along with the increase in the number of companies that performed assets revaluation model. This can be a signal for the governments that have a role in determining the final tax rate and regulations for companies that perform fixed asset revaluation.

From Graph 2, it can be concluded that between 2012 and 2015 there was an increase in the number of companies that performed asset revaluation. The government regulations relating to tax relief rate paid at the time after the asset revaluation in 2015 was presumed to be a driving factor for the increase of the number of companies that performed fixed assets revaluation. In addition, it could be evidence that asset revaluation attracted the attention of the companies after the convergence of IFRS. By presenting fair value to the investors, it was expected to be an added value and would provide benefits for the companies in the future.

*Leverage:* Leverage describes the whole assets of the company and the financial risk that will be the burden of the company in the future which will ultimately affect the income. Companies that

**Graph 2**  
**The Use of Assets Revaluation Method**



Source: Processed data.

**Table 4**  
**Descriptive Results of Leverage**

Leverage (Ratio)				
Year	Mean	Min	Max	
2012	1.62	0.75	2.33	
2013	0.59	- 4.29	2.91	
2014	0.95	- 5.04	6.13	
2015	1.30	- 4.71	9.28	
Total	1.11	- 3.32	5.16	

Source: Processed data.

use high debt structures to finance their investments are considered to be at risk (Army 2013). Leverage ratio is a consideration for the company whether to perform fixed assets revaluation or not.

Leverage is the ratio of total debt to total fixed assets. From the Table 4, it can be seen that respectively in 2012 the mean value of company's leverage was 1.162, in 2013 the mean value of company's leverage was 0.59, in 2014 the mean value of company's leverage was 0.95, and in 2015 the mean value of company's leverage was 1.30. So, the mean value of leverage during the study period was 1.11. From the Table 4, it can be concluded that the companies using the asset revaluation method have a high level of leverage and tend to rise every year. The companies performed fixed assets revaluation in the hope of reducing their leverage level. With an upward revaluation, the value of asset became larger and it was expected to increase the company's lending capacity and capital structure to be used as a means to increase future sales and company development.

*Size:* Studies conducted abroad found that large companies tended to perform fixed asset revaluation (Brown et al. 1992; Tay 2009; Seng and Su 2010; Iatridis and Kiligiortis 2012). For the purpose of lowering the government political pres-

sure or labor unions, large companies will avoid high profit reporting. Upward asset revaluation is an effective way to lower earnings reporting through increased depreciation expense as a result of an increase in asset revaluation (Seng and Su 2010).

Firm size was derived from the Natural Logarithm of the total value of the company's assets. In 2012, the mean value was 6.60, in 2013 was 6.33, in 2014 was 6.55, and in 2015 was 6.50, so the total mean value was 6.50. Based on the results in Table 5, it can be seen that the companies that performed asset revaluation were large companies. It can be seen from their total assets. Companies with large resource capacity performed asset revaluation to reduce their political costs. The companies were willing to pay the appraisers and the taxes arising from the asset revaluation, as long as the expected objectives could be achieved. They were willing to spend their funds in the hope that the costs were perceived to be lower than the political costs to be incurred, such as larger taxes and the demands of labor unions concerned.

*Liquidity:* Liquidity is the ability of assets to be quickly sold or turned into cash (Martin et al. 1993). Liquidity was the ratio of current assets to be used in this study, which had an influence on the revaluation decision.

Liquidity, in this study, is derived from total

**Table 5**  
**Descriptive Results of Firm Size**

Year	Size (Log Value)		
	Mean	Min	Max
2012	6.60	5.74	7.28
2013	6.33	5.35	8.26
2014	6.55	5.38	8.33
2015	6.50	4.98	7.93
Total	6.50	5.36	7.95

Source: Processed data.

**Table 6**  
**Descriptive Results of Liquidity**

Year	Liquidity (Ratio)		
	Mean	Min	Max
2012	15.02	- 0.26	59.37
2013	0.67	- 0.14	1.05
2014	0.55	- 0.54	1.12
2015	1.08	- 1.98	7.35
Total	4.33	- 0.73	17.22

Source: Processed data.

current asset compared to total current liabilities. The mean value in 2012 was 15.02, in 2013 was 0.67, in 2014 was 0.55, and in 2015 was 1.08. Thus, the total mean value is 4.33. Based on the results in Table 6, it can be seen that the companies with low liquidity tended to perform asset revaluation. Conversely, the companies, with high level of liquidity, tended not to perform asset revaluation because they had freedom to operate their short-term current and was guaranteed due to having sufficient current resources.

In the descriptive analysis, it is found that the average liquidity is not so low that it has no effect on asset revaluation. With regard to the low value of liquidity and current ratio, the aspects that needed to be taken into consideration to perform asset revaluation were the appraisal service fee and the final tax rate. For this the companies were more likely to look for other ways to increase their loan capacity, such as by trying to lower the leverage level.

*Operating Cash Flow:* All profit-related transactions reported in the income statement were classified into operating activities. The amount of cash flow generated from operating activities was an indicator that determined whether or not the company's operations could generate sufficient cash flow to repay the loan, maintain the operating capability of the company, pay dividends and make new investments without relying on external sources of funding.

Cash Flow, in this study, is derived from current year operating cash flow compared to the previous year operating cash flow. Based on Table 7, the mean value in 2012 is -0.09, in 2013 is -0.19, in 2014 is -0.12, and in 2015 is -2.04, so the total mean value is -0.61. This is predicted to be the result of the high operating cash flow done by the company. For the developing companies, they would have a high cash flow. In addition, for the companies that performed asset revaluation would increase their expenses to pay for the fee of appraisal services as well as final tax to the government. The companies would then require substantial funds, thus resulting in an increase in cash flows when compared to the previous year.

#### Hypothesis Testing

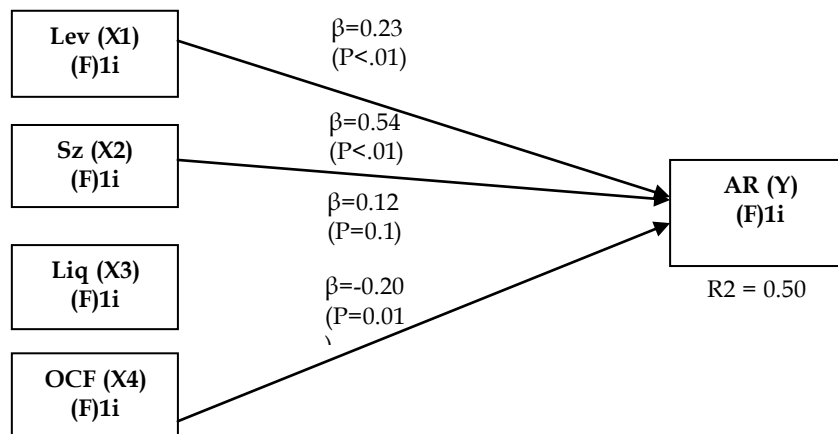
The data used in this research were secondary data. The variable used was a variable that had one formative construct. The purpose of this study was to examine the effect of leverage, size, liquidity, operating cash flow on fixed asset revaluation.

Figure 1 and Table 8 are the results of the path analysis model using the WarpPLS 4.0 program. Table 8 shows the path coefficients and P value on the direct relationship between each of independent variables and dependent variable in the research model. On the pathway of the effect of leverage on asset revaluation (Leverage → RA), it shows that the coefficient value is 0.23

**Table 7**  
**Descriptive Results of Operating Cash Flow**

Operating Cash Flow (Ratio)				
Year	Mean	Min	Max	
2012	- 0.09	- 0.28	0.60	
2013	- 0.19	- 13.96	6.08	
2014	- 0.12	- 1.37	2.02	
2015	- 2.04	- 34.67	11.35	
Total	- 0.61	-12.57	5.01	

Source: Processed data



**Figure 1**  
**Results of Path Analysis Model**

**Table 8**  
**Model Fit and Quality Indices**

Model Fit and Quality Indices			
Average path coefficient (APC)=0.272, P<0.001			
Average R-squared (ARS)=0.496, P<0.001			
Average adjusted R-squared (AARS)=0.462, P<0.001			
Average block VIF (AVIF)=1.038, acceptable if <= 5, ideally <= 3.3			
Average full collinearity VIF (AFVIF)=1.261, acceptable if <= 5, ideally <= 3.3			
Tenenhaus GoF (GoF)=0.705, small >= 0.1, medium >= 0.25, large >= 0.36			
Path	Path Coefficient (β)	P Value	
Leverage → AR	0.23	0.01	
Size → AR	0.54	0.01	
Liquidity → AR	0.12	0.10	
OCF → AR	-0.20	0.01	

Source: Processed data

with a significance P value of 0.01. This indicates that leverage has a significant effect on asset revaluation.

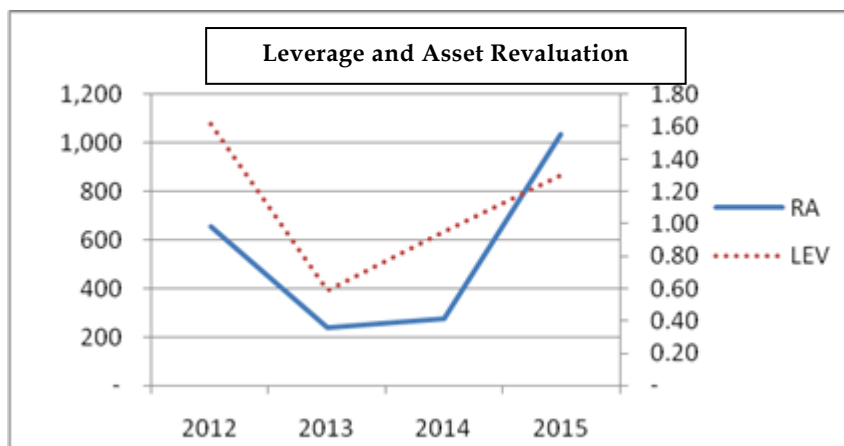
On the pathway of the effect of firm size on asset revaluation (Size → RA) shows that the coefficient value is 0.54 with a significance P value of 0.01. This indicates that firm size has a significant effect on asset revaluation. On the pathway of the effect of liquidity on asset revaluation (Liquidity → RA), it shows that the coefficient

value is 0.12 with a significance P value of 0.10. This indicates that liquidity has no effect on asset revaluation. On the pathway of the effect of operating cash flow on asset revaluation (CFO → RA) shows that the coefficient value is -0.20 with a significance P value of 0.01. This indicates that operating cash flow has significant effect on asset revaluation.

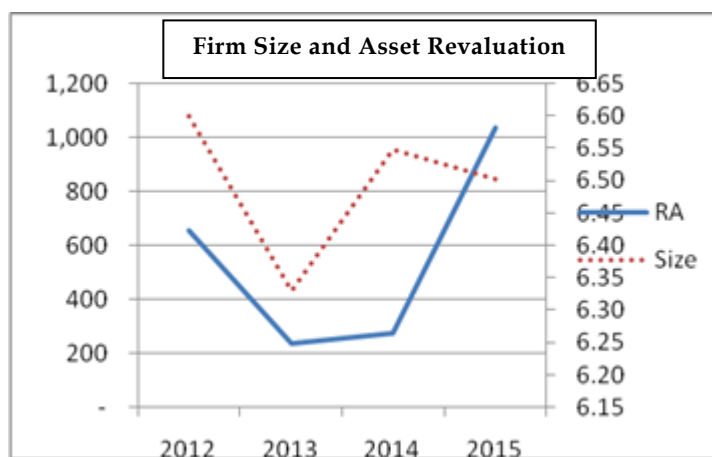
Based on Table 8, R-square value of 49.6% can be interpreted that the effect of independent va-



Graph 3



Graph 4



Source: Processed data.

riables, such as leverage, size, liquidity and operating cash flow, on asset revaluation is 49.6%, and the remaining 49.4% is influenced by other factor. Q-squared value is used to know whether the model has predictive relevance or not. The value of  $Q^2 > 0$  indicates that the model has predictive relevance, while the value of  $Q^2 < 0$  indicates that the model has lacks predictive relevance. This research model has predictive relevance because the value of  $Q^2$  is 0.515. The value of full collinearity VIFs is the result of full collinearity testing which includes vertical and lateral multicollinearity. Criteria for full collinearity VIFs test is that its value should be lower than 3.3. The value of full collinearity VIFs which is below 3.3 indicates that there is no multicollinearity in the research model.

### Analysis and Discussion

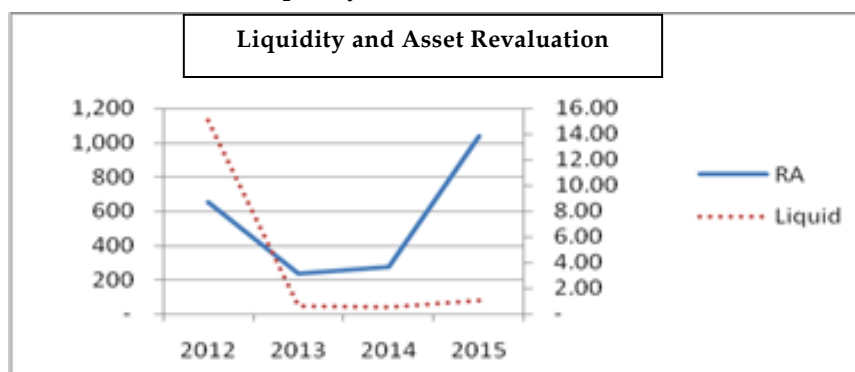
#### The Effect of Leverage on Fixed Assets Revaluation

Leverage is the ratio between the level of company's debt or liabilities and company's asset. So,

companies, with high leverage, are thought to have more burdens for the managers. Companies are required to improve their leverage in order to reduce risk for investors. One of ways is to do an asset revaluation so that the asset value can be recovered to the current fair value that makes the asset value increase and reduce the high leverage. It can also create a good image of the company in the eyes of the external parties, such as bank as a creditor or investor as the owner of the funds.

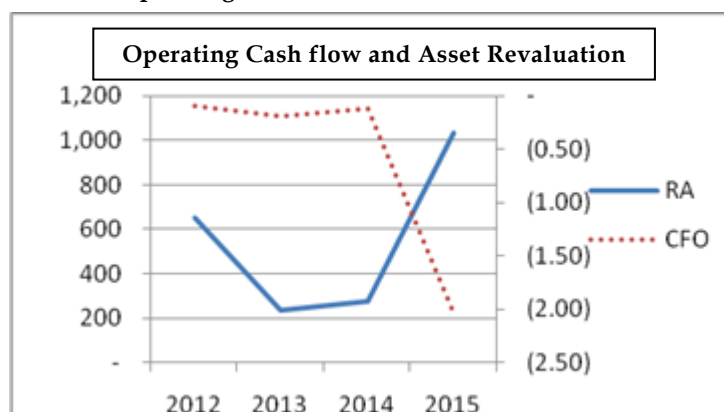
In Graph 3, it can be seen that the average value of revaluation (in IDR billion) and Leverage. In 2012, when the leverage value was high, the asset revaluation value was also great, but the decline of the large leverage value in 2013 did not make a significant decrease in asset revaluation value. And in 2014 and 2015 leverage value was up again, but this did not have significant effect on the increase of asset revaluation value. It had a positive relationship, meaning that the increase in leverage was coupled with the increase in the av

**Graph 5**  
**Liquidity and Asset Revaluation**



Source: Processed data.

**Graph 6**  
**Operating Cash Flow and Asset Revaluation**



Source: Processed data.

verage value of asset revaluation conducted by the company.

It shows that the companies, with higher debt than its asset value, chose to use asset revaluation method in recording its financial report. The results are supported by the studies conducted by Andison (2015), Manihuruk (2015) in which the companies with larger debt level will more likely choose to use revaluation method on their fixed asset recording. Jaggi & Tsui (2011) argue that the asset revaluation conducted by companies in Hong Kong has significant positive effect on the future operations of the companies.

In relation to the above evidence, Barac & So-dan (2011) argue that companies with high leverage will choose revaluation model to lower their debt levels, thus increasing feasibility in the eyes of creditors. Meanwhile, different results were found in the studies conducted by Seng and Su (2010) and Yulistia (2014). They argue that lenders realize that asset revaluation and the possibilities arising from asset revaluation have become a con-

sideration in determining debt agreements (Seng and Su 2010). Lin and Peasnell (2000) in Seng and Su (2010) state that revaluation as an effective accounting tool in increasing the loan capacity is uncertain, since creditors can exclude revaluation in the basis used to calculate the debt ratio.

#### **The Effect of Firm Size on Asset Revaluation**

Firm size is usually seen from the amount of assets owned. Large companies have big risks. Large companies do not want their full profits to be clearly visible to outsiders, such as government as tax recipients or labor unions.

In Graph 4, it can be seen that there was a decrease in the average value of asset revaluation and average value of size (in IDR billion) from 2012 to 2013. The large costs needed for performing asset revaluation made the company decrease the value of its revaluation. The decrease in the average value of revaluation was done by large companies because they still had not gained more benefits from the use of asset revaluation.

This indicates that large company will more likely choose to use revaluation methods on their fixed asset recording. Particularly in Indonesia, some companies with large capital tend to choose this method to lower profits with new depreciation arising and tax payments on revaluation.

In the previous research it was found that with the existence of a company contract related to financial commitments as well as future investment plans, large companies wanted to pay smaller dividends for the purpose of reinvesting their profits. So, by using revaluation method, it was expected that the goal could be achieved (Iatridis & Kilirgiotos 2011).

The larger the size of the company, the higher the political costs. This assumption arises because large companies often get more attention from other parties, thus affecting an increase in regulation or tax rules of the regulator. Large companies have high sales figures and tend to be audited by a reputable Public Accounting Firm. With large financial resources to minimize political costs and to achieve corporate goals, the companies will tend to use the model. The research conducted by Manihuruk (2015) finds a significant negative influence between firm size and asset revaluation. The research concludes that companies, with larger size, would be less likely to choose to use revaluation methods on the recording of their fixed assets. Manihuruk believes that revaluation can indicate a conservatism that can reduce political visibility because the depreciation and asset base, which are used to measure return on equity, become greater.

The results of this study are also supported by the studies conducted by Seng & Su (2010) and Tay (2009). But it is different from the research results conducted by Cheng & Lin (2009) which indicate that firm size has no effect on asset revaluation. The company will conduct asset revaluation only to reduce net profit, total return on assets and equity when the economic condition is under recovery from the crisis.

#### **The Effect of Liquidity on Asset Revaluation**

The choice of revaluation method tends to be done by companies with low liquidity, while companies with high liquidity level do not need to do fixed asset revaluation.

In Graph 5, it can be seen that there is a difference in graphic direction pattern between liquidity and fixed asset revaluation. In 2012, the average liquidity was high. This occurred because the number of companies was only a few and

there was only one company that had a large number and also did a big revaluation. From 2013 to 2015 the company's liquidity was relatively stable but the asset revaluation continued to rise sharply. So, base on the data and statistical test results of this study above there is no influence between liquidity and fixed asset revaluation.

Liquidity, which can be seen from current ratio, illustrates the company's ability to pay off its short-term liabilities. This ratio is usually one of the conditions set forth in the agreement between the debtor and the creditor. Companies with low liquidity tend to seek to increase their liquidity in order not to violate the debt covenant. Meanwhile, companies with high liquidity tend to have freedom from and are undisturbed by the debt agreements in their financial strategy.

The results of the study are supported by Anderson (2015) who didn't find the effect between liquidity and Asset revaluation and neither did Tay (2009) find any positive effect of liquidity on asset revaluation. Asset Revaluation is likely to be done by the company to obtain funds for the improvement of liquidity through loan funds, so the liquidity ratio has negative effect on the company's policy to conduct asset revaluation. Companies, with high liquidity, do not need loans in their business strategy, because they already have resources and guarantee for sustainability, especially in their short-term operations which can be seen from current assets compared with current liabilities.

The results of this study differ from that by Manihuruk (2015) in which more liquid companies will more likely choose to use revaluation methods on their fixed asset recording. Barac & Sodan (2011) argue that companies with low liquidity ability tend to perform asset revaluation to increase the lending capacity. Cheng & Lin (2009) also argue that companies with low liquidity rates will choose the revaluation method as viewed from their quick ratio.

#### **The Effect of Operating Cash Flow on Fixed Asset Revaluation**

In Graph 6, it can be seen that the average value of operating cash flow has decreased from year to year while the average value of asset revaluation has increased. This means that when the operating cash flow conditions are low, the value of revaluation will be high. This is done by the company to pay for the company's large operations plus the appraisal services and final tax value to be paid to revalue the assets. In fact, a growing company will

have a high operating cash flow, which will result in increased risk of the company in terms of its liquidity. This can bring negative value in the total cash flows of long-term or future funding and investment activities (Barac and Sodan 2011). By using asset revaluation method, the possibility of the company to access additional loan capacity will be greater. Operating cash flow is deemed crucial for the continuity of the company's operations in the future. The greater the revaluation value, the higher the cash flows required to finance the appraisal services, audit fees and taxes, so that the total operating cash flow will decrease as a result of the increased use.

In previous research, it was found that there was a support related to companies that performed asset revaluation due to the decrease in operating cash flow compared to the previous year. Whereas, when there is an increase in total cash flow, the company tends not to perform fixed assets revaluation (Cotter and Zimmer (1995), Meanwhile, Yulistia (2013), in her research, does not find any effect of decreased operating cash flow on asset revaluation. Other studies argue that there is a possibility that operating activities can be offset by other activities so that lenders not only focus on operating cash flow alone (Seng and Su 2010)

## 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

This study aims to examine the effect of leverage, size, liquidity and operating cash flows on fixed asset revaluation. The sample data used in the study were all non-banking and non-financial companies listed on IDX in 2012 - 2015. Based on the results of the research and discussion above, it can be concluded as follows:

1. Leverage has an effect on fixed asset revaluation. Companies that perform revaluation tend to have strong motive related to leverage level. By performing revaluation, the companies are expected to be able to decrease leverage level for the purpose of risk reduction demanded by the owner of capital for the sustainability of the companies, in which the correlation is, of course, by raising the asset value. The companies are expected to gain more loan capacity or value from the sale of reasonable assets. After the revaluation, it is expected to give positive effect and good impact for the company,
2. Firm size has a significant effect on fixed asset revaluation. Large companies, with large resources, choose to use asset revaluation model.

The impact of the asset revaluation is to increase the depreciation cost for the company, so that the profit will decrease. Another aspect that should be considered is the great cost to conduct asset revaluation (final tax, auditor, appraisal services). But large companies must have already calculated and got strong reasons to use asset revaluation method as part of corporate strategy to reduce political costs,

3. Liquidity has no effect on fixed asset revaluation. Companies with problems in their liquidity do not perform asset revaluation as a model of recording. Asset revaluation requires a large fee, such as appraisal fee, audit fee, and increased final tax to be paid for the consequences of revaluation value. Liquidity, with the proxy of current ratio, is not a consideration of the company to do revaluation. Comparison between current asset and current liabilities is a short period of time, which may not have a correlation with the selection of the asset revaluation method so that its impact can be used as the company's medium or long term strategy.
4. Operating cash flow has an effect on fixed asset revaluation. When the need for cash flow for company's operations is getting higher, there is a big tendency to perform revaluation. A company with high cash flow has a risk at the end of the year, in which the company will have a low amount of cash flow or even lower than the previous year, thus making management disrupted. Operating cash flow is becoming a consideration for a company to perform revaluation due its high costs. The company is believed to have strong consideration to perform asset revaluation which can be seen from the condition of cash flow owned. In this case, the impact on the cash flow must have been taken into account.
5. In practice, the asset revaluation method should be reviewed, especially related to the role of the government and the financial authorization body, in the hope that there will be an increase in the number of companies that report the fair value of their assets which reflect the actual circumstances. The government's role as a policy regulator should set fair taxation rules for the tax rates paid for the revaluation including the consequence the company receives and the value of the actual asset. The tariffs and provisions should be discussed further in order to support the reporting of actual asset value in the financial statements of the

companies listed in IDX in particular by using IFRS guidelines as a whole.

This research is expected to contribute to further research, especially on asset revaluation. It can be concluded that the results of this research can provide the answer to the motive or impetus of the companies to perform asset revaluation. However, this research has some weaknesses related to the number of companies and data limitations. In addition, this research only uses non-banking and non-financial companies as the samples. The researchers did not compare between the revaluation method and the costs needed.

It suggests that further research add the number of variables on asset revaluation and expand the sample by involving the revaluation and non-revaluation companies. In addition, it is also suggested to examine the development of asset revaluation, especially in ASEAN countries, related to the adoption of IFRS in terms of fixed asset revaluation.

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