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# Effect of Environmental Performance, Performance Fundamentals and Macro Factors on Firm Value (Study on the Mining Sector Issuers Listed in Indonesia Stock Exchange)

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#### Abstract

This study aimed to examine the effect of environmental performance, the performance of fundamental and macroeconomic factors on firm value. This research was conducted on a property company listed on the Indonesia Stock Exchange. The population in this study are companies operating in the mining sector. Samples were taken using purposive sampling method. Methods of data analysis using analytical tools E-Views. The results of this study indicate that the environmental performance, the performance of fundamental and macroeconomic factors simultaneously affect the value of the company, but individually, among the study of variables, variables fundamentals appear to have a greater effect on firm value.

Keywords: environmental performance, performance fundamentals, macro economic factors and value companies

#### I. Introduction

Industrial company in Indonesia which has a maximum profit level, but the level of awareness about the environment is still very low. One is a business in the mining sector, which does have a very important role to support the national economy and can make a significant contribution to society, but there is no doubt that the mining sector enterprises also have the potential to cause damage to the environment and forests. For example, the activity of the coal mining company in Indonesia generally use open-pit mining techniques (open pit mining), namely mining method with all its activities performed on or relatively close to the ground surface. Such activity will leave the land degradation in the form of huge holes / changes in the landscape, the destruction of soil properties, loss of flora and fauna, microclimate, hydrological function, as well as socio-economic and cultural. Environmental damage in Indonesia is already at a very alarming rate, it is visible from many environmental conditions change, such as climate change, land use change and ecosystem changes. These changes would be a threat to the survival of living beings on earth.

As Spillane (2007) suggests there are some cases associated with public discontent over the company's activities in Indonesia. Like the case of Lapindo mudflow that occurred in the Sidoarjo area which has been named as the company is not responsible, pollution of Buyat Bay by PT. Newmont Minahasa Raya, and pollution cases conducted by PT. Freeport Indonesia that do not meet the limit had polluted waste water and marine biota (Arifin, et al., 2012). Coal mining from the beginning until the end of the activity always cause problems. Not only issue licenses, but also of environmental damage caused by the worst claimed lives due to lack of post-mining reclamation.

This bittersweet story vivid in South Sumatra and East Kalimantan. South Sumatra province area of approximately 8.7 hectares, about 5 million hectare of which is allocated for plantations and coal mining. As well as South Sumatra, the monitoring and investigation of the Mining Advocacy Network (Mining) shows the total control of land mines in East Kalimantan about 7 million hectares are consisting of 1,451 mining business license (IUP) with an area of 5,314,294.69 hectares, 67 coal mining exploitation work agreement (PKP2B) which controls approximately 1,624,316.49 hectares of land, as well as 5 work contract with a concession area 29201.34 hectares. Until 2014, there are approximately 150 coal pits that are not reclaimed. The hole, reaching an average breadth of one hectare with depths greater than 50 meters. Since 2011-2014, there are 9 children drowned in the pit coal mine is not closed. Worse, the case of the boy's death never reached keranah law let alone to court. The case was settled by granting compensation to the affected families by the company which vary between Rp100-120 million. Then the case was complete. (Taufik Wijaya and Rahmadi Rahmat, 2014, Coal, Gold Black Loaded Problems, http://www.mongabay.co.id/2014/12/31/batubara-emas-hitam-yang-sarat-permasalahan/, accessed on March 5, 2016).

Those problems prompted many parties to make efforts to address the environmental damage. Among consumers, stakeholders, government and stakeholders in the environment either independently, nationally and internationally. The Government through the Ministry of the Environment formed a Performance Rating Program in Environmental Management (PROPER) which has been implemented since 2002 in the field of environmental impact control to enhance the company's role in environmental conservation program. The

environmental performance of companies measured using colors, ranging from the most good, namely gold, green, blue, red and black are the worst. By this way, the public will be easy to determine how the level structuring the company's environmental performance.

Several studies have been conducted to examine how the influence of environmental performance and the performance of the fundamental value of the company. However, previous studies had mixed results. According to the research Tjahjono (2013) that environmental performance has a significant influence and research Suwarti, et al. (2013) which states that the environmental performance negatively affect the value of the company. These results are not consistent with research conducted by Mandy (2007) which concluded that the environmental performance and market performance

Research on the Return On Asset (ROA) and the value of the company conducted by several researchers such as Gamayuni (2009), Riantani (2011) and Fahrizal (2013) simultaneously stated that the Return On Asset (ROA) has a significant influence on the value of the company. The different results obtained by Carningsih (2012), in his research concluded that the Return On Asset (ROA) negatively affect the value of the company.

Research Barasa (2009), Elvira (2014) and Sharif (2014) who found that the Debt to Equity Ratio (DER) has no effect on the value of the company. However, these findings are not consistent with the findings Kusnaeni (2012) and Gamayuni (2015) showing that DER positive and significant effect on firm value.

In 2014, one of the macro-economic issues that affect the interest of investors to the capital market in Indonesia is Jokowi Effect, a term that appears after the candidacy Jokowi become President. As quoted in the daily www.Tempo.co March 17, 2014, At the close of trading in the currency market, Friday, March 14, 2014, the rupiah strengthened to 11 356 per US dollar. Certainty nomination Jokowi make rupiah moved in the range of 11,300 per dollar, after falling to as low as 11,500. In the middle rate of Bank Indonesia, the rupiah closed at 11,421 per dollar, or rose 34 points compared to the previous trading. Not only affects the exchange rate, it is also surprising the capital market, namely the increase of JCI which rose 3.2%. The following graph illustrates the effect of Jokowi effect against IHSG (JSX Composite)



Figure 1.1 Grafik Jokowi Efect

sources : http://www.kompasiana.com/annamelody/and-the-jokowi-effect-begins

As described previously, the fundamental factors influence the value of a company as mentioned Rivan Andrie Sabi Arvianto, Suhadak, Topowijono 2014, the company's fundamentals are controllable so that it can be controlled company.

Ephraim Clarka and Salma Meftehb 2010 test that the effect of the foreign currency in the use of derivatives by the value of the company there is significant different from the study done Chrisna Riane Opod 2015 Factor macroeconomic fundamentals represented by inflation, interest rates, exchange rates or exchange rate and economic growth, had no significant effect on the value of the company, different results by research Ardisona Sandhi Putra, Suhadak and Topowijono 2014 that the macro economy and significant negative effect on the fundamentals.

This study draws on research Ridho (2015), which examines the influence of environmental performance and financial performance against the performance of the market. However, in this study there are

some differences from previous studies. First, in this study, the researchers tried to use the value of the company which is proxied by Tobins Q as the dependent variable. Second, data and samples used in the research are mining companies listed on the Indonesia Stock Exchange in 2011-2014 which publishes Annual Report and PROPER registered for the 2011-2014 period. Third, this study uses the Return On Asset (ROA) Debt to Equity Ratio (DER) as a measure of the performance of the company's fundamentals, and this study also examines the effect of macro factors on firm value.

Based on the background described above, the problem in this research are:

- 1. Is the environmental performance can affect the value of the firm?
- 2. Is fundamental performance with proxy return on asset can affect the value of the firm?
- 3. Is Fundamental performance with proxy debt to equity ratio can affect the value of the firm?
- 4. Is the macro factors can affect the value of firm ?

## II. Review literature, theoretical framework and hypothesis

#### **1. Environmental Performance**

Management does not just rely on the company's performance in decision-making, but also takes their social information. Anggraini (2006) explains that the individual investor interested in the social information input variables related to social and environmental sustainability issues. Investors are more likely to invest in companies with good business ethics, practice good employees, concerned about the environmental impact and social responsibility. This was stated in Law No. 4 of 2009 on Mineral and Coal Mining (Mining Law), in Article 108 of the Mining Law declared "IUP holder and IUPK obliged to prepare program development and community development, the preparation of the program consulted with the Government, local government, and society.

Environmental performance is the performance of the company to create a green environment (Suratno, et al., 2007). Environmental performance is one important step in the company's business success. Environmental performance is a result that can be measured through an environmental management system that is based on environmental policy, environmental objectives and environmental targets (Purwanto, 2004).

Performance assessment of environmental management, an industrial activity requires measurable indicators. This is implemented by the government with the aim of increasing the company's role in managing the environment and cause a stimulant effect in compliance with environmental regulations and the added value to the preservation of natural resources, energy conservation and community development.

The legal basis for the implementation of the PROPER is the Minister of Environment Regulation No. 3 of 2014 on Corporate Performance Rating Program in Environmental Management (PROPER). The Ministry of Environment has implemented an environmental program called PROPER or Performance Rating Program in Environmental Management. PROPER designed to encourage compliance of companies in environmental management through the instruments of incentives and disincentives. Incentives in the form of dissemination to the public about the reputation or good image for companies that have good environmental management performance. It is marked with the label Blue, Green and Gold. Disincentives in the form of dissemination of reputation or a bad image for the company that has environmental management performance which is not well marked with red and black label.

## 2. Fundamental Performance

In selecting stocks, fundamental analysis into the most important approaches that should not be disregarded by investors. One important aspect of fundamental analysis is the analysis of financial statements, because of the financial statements can be estimated state, or the position and direction of the company. In the capital market, the financial statements of the company have a highly strategic function. According Munawir (2000: 31), "financial reporting is a very important tool to obtain information relating to the financial position and results achieved by the company."

To facilitate the assessment of the financial statements, analysts use a variety of financial ratios include profitability and leverage ratios. Both of these have a close connection. The main objective of the company is to obtain a high profitability, of course, to achieve these objectives required additional funds. The net profit (net income) is the principal measure the overall success of the company. Income measurement often use the Return On Asset (ROA) as a measurement of a company's ability to generate profits derived from investment activities. Earnings may affect the company's ability to obtain loans and equity financing. Source of funding can come from the outside and from the inside. Each source of funds used by the company will incur expenses / costs of which some can cause permanent load. Financial leverage is the use of financial resources has the burden remains with the hope that it will provide an additional benefit that is greater than its permanent burden that will increase profits available to shareholders (Sartono, 2010: 263). One is the capital debt ratio Debt to Equity Ratio (DER). According Syafri (2008: 303), the smaller the capital debt ratio, the better. And for the security of outsiders, the best ratio if the amount of capital is greater than or at least the same amount of debt.

#### **3. Flow Macroeconomics**

#### a. The Classical

Classical theory states that there may be an excess production which is caused by the production itself or any of the factory production, the worker would be able to afford it. Also according to the classical theory of prices and wages are flexible so that the market will quickly be good or back in the balance. This classic analysis revolves around the Markets Law Say, this theory coined in 1803 by the French economist, namely J. B. Say. He stated that it was not possible excess production attributable to the production itself. This is sometimes expressed by "offer creates its own demand". Law say on the view that there are no fundamental differences of economic and monetary with a barter economy. Many economists believe this classical theory. Among them are: David Ricardo, John Stuart Mill, Alfred Marshall, and J.B. Say. They believe in a macro view of classical economics that overproduction is not possible. The classical view expressed by leading British economist A. C. Pigou wrote during the great depression. In conclusion, in view of classical economics has only momentary and temporary deviations from full employment and full utilization, there will be a recession or depression long and sustained. Demand also can not affect the unemployment rate and real output. Thus, monetary and fiscal policies only affect the price level of the economy, along with the establishment of the Gross Domestic Product (Gross Domestic Product) is real.

Macroeconomics study the economic variables on aggregate (overall). These variables include: national income, employment or unemployment, money supply, inflation, economic growth, and the international balance of payments. In macroeconomics, known to the consumer society, the producers, and market aggregative formed from aggregate demand and aggregate deals. In addition, we recognize national consumption expenditure variables do all consumers, variable investment spending nationwide, as well as general prices or index prices. (Ana Setiana 2015).

## 4. Firm Value

In the long term, the company's goal is to optimize the value of the company. Firm value is very important because of the high value of the company which will be followed by a high prosperity shareholders (Brigham Gapensi, 1996). The higher the stock price the higher the value of the company. High corporate value to be the desire of the owners of the company, because with a high value indicates prosperity shareholders also high. Shareholder and the company presented by the market price of the shares is a reflection of the investment decision, financing and asset management.

According to Fama (1978) in Untung Wahyudi et al. (2006), the enterprise value would be reflected in its share price. The market price of the shares of the company formed between buyers and sellers when transactions occur is called the market value of the company, because the price of the stock market is considered a reflection of the true value of the company's assets. The value of the company formed by indicators of stock market value is influenced by investment opportunities. The value of the company is an investor perception of the company, which is often associated with the stock price. High stock prices make the company's value is also high. The existence of investment opportunities can provide a positive signal about the company's growth in the future, which will increase the stock price, the stock price increases, the company's value will increase.

According to Herath (2008), one of the alternatives used in assessing the value of the company is to, using Tobin's Q. This ratio was developed by Professor James Tobin (1967). Tobin's Q is the ratio between the company's market value and book value of total assets. Tobin's Q, also known as the Q ratio measures the growth opportunities of a company by comparing the market value of the company's assets with a replacement value of the assets of the company (Tobin, 1969).

Tobin's Q plays an important role in many aspects of corporate finance to explain various phenomena of companies, such as differences in cross-sectional investment and diversification decisions (Jose, Nichols and Stevens, 1986 and Malkiel, Furstenberg, and Watson, 1979), the relationship between managerial equity ownership and firm value (McConnell and Servaes, 1990 and Morck, Shleifer, and Vishny, 1988), the relationship between managerial performance and the tender offer gains (Lang, Stulz, and walkling, 1989), and financing, dividend and compensation policies (Smith and Watts, 1992). The value of the company is considered as the value of a combination of tangible assets and intangible assets. Criteria value of Tobin's Q, and range:

- a) Low (0 to 1), indicating the cost of changing the company's assets is greater than the market value of the company, then the market would undervalue the company.
- b) High (> 1), then the value of the company is greater than the value of assets of listed companies. This indicates that there are some assets of the company are not measured or recorded.

#### 5. Prelimenary research

Research on Environmental Performance and Performance Fundamental to the value had previously been done by several researchers. Barasa (2009) investigated the Influence of Debt to Equity Ratio (DER) and Debt to Asset Ratio (DAR) to firm value in banking companies listed on the Stock Exchange shows that the Debt to Equity Ratio (DER) and Debt to Asset Ratio (DAR) partially does not affect the Market Value of Equity (MVE), Debt to Equity Ratio (DER) and Debt to Asset Ratio (DAR) simultaneously significant effect on the Market

#### Value of Equity (MVE).

In a study conducted by Riantani et al. (2011) on analysis Debt to Equity Ratio (DER) and Return On Assets (ROA) and its impact on the closing price of the mining industry that is listed on the Stock Exchange found that Debt to Equity Ratio (DER) and Return On Assets (ROA) simultaneously influence significantly to the closing price. While partially, only ROA is a significant positive effect.

Fahrizal (2013) studied the effect of the Return On Asset (ROA), Return on Equity (ROE) and Investment Opportunity Set (IOS) to the value of a company that is proxied by Tobin's Q stated that ROA and IOS positive and significant impact on the value of firms, ROE influential negative and significant impact on the value of the company.

In a study conducted by Tjahjono (2013) on the effect of environmental performance on corporate value and financial performance as an intervening variable indicates that environmental performance has a significant influence on financial performance, environmental performance has an influence no significant effect on the value of the company's financial performance significantly influence the value of the company, environmental performance has a significant impact on financial performance through the company's value.

Sharif (2014) studied the influence of financial performance analysis of the value of the company found that financial performance include the Current Ratio (CR), Debt to Equity Ratio (DER) and the Gross Profit Margin (GPM) simultaneously affect the value of the company. Current Ratio (CR), Debt to Equity Ratio (DER) partially not significantly affect the value of the company. While Gross Profit Margin (GPM) significantly affect the value of the company.

Ridho (2015) studied the effect of environmental performance and financial performance is proxied by Return On Equity (ROE) on the performance of the market is proxied by Price Earning Ratio (PER) found that environmental performance does not have a significant effect on market performance, financial performance has influence significantly to the performance of the market.

In a study conducted by Gamayuni (2015) on the effect of Intangible Asset (IA), financial performance include the Current Ratio (CR), Return on Assets (ROA), Asset Turnover (Ast) and financial policies that include Debt to Equity Ratio (DER) and Dividend Payout Ratio (DPR) to the value of a company that is proxied by Tobin's Q indicates that the Intangible Asset (IA), Debt to Equity Ratio (DER), Dividend Payout Ratio (DPR), the Current Ratio (CR), Return on Assets (ROA), Asset Turnover (Ast) significantly affects the value of the company simultaneously. Debt to Equity Ratio (DER), Dividend Payout Ratio (DPR), Return on Assets (ROA) significant positive effect on firm value. Intangible Asset (IA) did not significantly influence the financial policy, but significant positive effect on return on assets (ROA) and the value of the company.

Sandhi Ardison Putra, Suhandak dan Topowijono 2014 studies showed that that macro economic factor have positive and significant impact on firm value.

#### **6** Theoretichal framework

The increase in revenue and earnings in the enterprise is a good indicator for the performance of the company. However, the increase in revenue and profit is not enough to attract investors to invest in the company. Good fundamental performance will ensure the sustainability of the company if it could be offset by the disclosure of environmental performance and social responsibility towards the environment and society. According to Williams and Siegel (2001), the sustainability of the company (corporate sustainability) will be assured if the company pay attention to social and environmental dimensions.

The social dimension is also an important thing to be disclosed dalapam annual report. Due to the economic perspective, the company will disclose the information if the information would result in an increase in the value of the company (Verrecchi, 1983 in Basalamah et al, 2005). In addition to implementing corporate social responsibility, is expected in the long term, the company will gain social legitimacy and maximize its financial strength (Kiroyan, 2006). This proves that the company also expects a positive response from market participants on social activities that have been carried out (Pujiasih, 2013). Implementation of social activities is not escape the role of environmental accounting as an information provider for management (Dian, 2011). The diversity of the demands of society with regard to the company's performance in environmental management, the company in charge to have a report on the environment.

#### **III. Research Methods**

This study uses causal research that aims to meguji about the effect, between a variable (an independent / Xn) with other variables (Dependent Variable / Yn) is to test the Effect of Environmental Performance, Performance Fundamentals and Macroeconomic Factors Against Corporate Values.

#### **Environmental performance**

Environmental performance is the measurable results of the environmental management system, which is associated with the controls of environmental aspects. Evaluation of environmental performance is the one that PROPER implementation by governments to corporations in Indonesia. And the result PROPER proxied by five colors namely gold, green, blue, red and black and is described in the table below:

a) Gold: very very good score: 5

b) Green: Very good score: 4

c) Blue: good score: 3

d) Red: poor score: 2

e) Black: very bad scores: 1

## **Fundamental performance**

**Return on Assets (ROA):** According to Hanafi and Halim (2003: 27), Return on Assets (ROA) is the company's financial ratios related to the profitability of the company ability to produce profit or the profit on the level of income, assets and certain share capital. By knowing the ROA, we can assess whether the company has been efficient in using its assets in operating activities to generate profits. The formula for calculating ROA is as follows:

**Debt to Equity Ratio (DER):** The debt in financial management is aiming to boost the company's financial performance. If companies rely on capital or equity only, of course, the company will be difficult to expand the business which need additional capital. The role of debt greatly help the company to carry out the expansion. But if the amount of debt already exceeds the amount of equity held, the risk of the company's financial liquidity is also higher. It required a special ratio to see the performance. The ratio of debt capital, known as the Debt to Equity Ratio (DER) is a ratio that compares the amount of debt to equity. This ratio is often used by analysts and investors to see how much debt the company when compared to equity held by the company or its shareholders. The higher the number of DER, it is assumed that the company has a higher risk for the liquidity of the company. According Syafri (2008: 303), the smaller the capital debt ratio, the better and for the security best outsiders if the total capital ratio is greater than or at least the same amount of debt. Capital debt ratio is calculated by the formula:

**Macroeconomic Performance:** Interest rate using a Beta value of Interest Rate calculated through data regression SBI Closing Price per month against mining companies from January 2011-December 2014 were obtained from the BI data.

**Economic growth :** Gross Domestic Product (GDP) is the total production of goods and services produced by the domestic population and the foreign population residing in the country. In this study the data obtained from BI

**The value of Firm**: Tobin's Q model defines the value of the company as the value of a combination of tangible assets and intangible assets. (Klapper and Love in Haosana, 2012: 35)

The population in this study consists of all the mining company sector listed on the Indonesia Stock Exchange in 2011-2014 period. Populations have been due to the company's mining sector is a company who deals directly with the environment and have a high level of environmental risks in Indonesia. Samples were mining companies listed on the Stock Exchange period 2011-2014. The sampling technique in this research is using the technique nonprobabilitas (nonrandom selection), method of judgment samples is one form of purposive sampling by taking samples through certain considerations (Sugiyono, 2001: 61). Such considerations are classified as follows:

a) Issuer mining sector, which publish and publish the annual report in 2011, 2012, 2013 and 2014.

b) Issuer mining sector, which has been PROPER program in 2011-2014.

c) The Company has a complete data associated with the variables used in this study.

Based on the sampling criteria, selected 13 mining companies listed on the Stock Exchange from the year 2011 to 2014 who meet the criteria, with observational of 52 of data. Then, the data have been collected and has met the requirements of validity and reliability of the application will be processed using E-Views.

## IV. Result and discussion

In this study, the companies studied is a company incorporated in Indonesia and has been listed on the Indonesia Stock Exchange. This study aims to identify and analyze one of the factors that have an influence on the value of the company. Companies that the sample comprised 13 mining companies in the period 2011- 2014. Prior to estimate and analyze, this study will describe the minimum value, maximum, mean, standard deviation and statistical calculations performed with the aim to get the final result, namely the deduction of hypotheses have been proposed.

Description of statistical data for all variables used in this study are shown in Table 1as follows:

Table 1 Uji Deskriptif												
	TBN?	INF?	INTR?	PDB?	PROP?	DER?	ROA?					
Mean	1.317692	6.207500	6.750000	6.027500	3.500000	0.461731	0.069231					
Maximum	4.560000	8.380000	7.750000	6.500000	5.000000	23.97000	0.380000					
Minimum	0.320000	3.790000	5.750000	5.700000	2.000000	-43.34000	-0.160000					
Std. Dev.	0.901384	2.191187	0.892507	0.314922	0.754074	8.405691	0.115110					
Observations	52	52	52	52	52	52	52					
Cross sections	13	13	13	13	13	13	13					
a												

Sources : processed researchers (2016)

Based on the results of data processing obtained the mean, minimum, maximum, and standard deviation of each variable of the study. It can be observed in Table 1.1.

Tobins Q (TB) shows the average value of mining companies 2011-2014 period amounted to 1.3177 which means that the average Tobins Q has a value of 131.77% and a standard deviation of 0.9014 or 90.14%. Companies that have an average value over the standard deviation can be said is likely to have small changes every year. Tobins Q which has a minimum value is PT. Medco Energy Tbk in 2011 amounted to 0.3200 or 32% and the maximum value is PT. Bayan Resources Tbk in 2011 amounted to 4.5600 or 456%.

Inflation (INF) showed an average of the 2011-2014 period amounted to 6.2075 which means that the average inflation has a value of 6:20% and a standard deviation of 2.1911% or 2:19. Inflation which has an average value over the standard deviation can be said is likely to have small changes every year. Inflation has a minimum value of 3.7900 or 3.79% in 2011 and a maximum value of 2013 amounted to 8.3800% or 8:38.

Interest Rate (IR) showed the average interest rate amounted to 6.7500 2011-2014 which means that the average interest rate has a value of 6.75% and a standard deviation of 0.8925 or 0.89%. Interest Rate which has an average value over the standard deviation can be said is likely to have small changes every year. Interest Rate which has a minimum value of 5.7500 or 5.75% in 2012 and a maximum value in 2014 amounted to 7.7500 or 7.75%.

Economic Growth (PE) showed that the average period of 2011-2014 amounted to 6.2075 which means that the average economic growth has a value of 6:20% and a standard deviation of 0.3149% or 0:31. Economic growth which has an average value over the standard deviation can be said is likely to have small changes every year. Economic growth which has a minimum value of 5.7000 or 5.70% in 2013 and a maximum value of 2011 amounted to 6.5000% or 6:50.

Environmental Policy (PROPER) indicate average in mining companies 2011-2014 period amounted to 3,500, which means an average Proper has a value of 3.5 and a standard deviation of 0754 or 0.8. Companies that have an average value over the standard deviation can be said is likely to have small changes every year. Proper which has a minimum value of 2.000000 or 2 is blue and the predicate category maximum value of 5.00000 or 5 are gold predicate categories.

Debt to Equity Ratio (DER) indicate average in mining companies 2011-2014 period amounted to 0.4617 which means that the average Debt to Equity Ratio has a value of 46.17% and a standard deviation of 8.4057 or 840.57%. Companies that have an average value below the standard deviation can be said is likely to have a major change every year. Debt to Equity Ratio which has a minimum value is PT. Berau Coal Energy Tbk in 2013 amounted to -43.3400 or -4334% and the maximum value is PT. Berau Coal Energy Tbk in 2014 amounted to 23,970, or 2397%.

Return on Assets (ROA) shows the average in mining companies 2011-2014 period amounted to 0.0692, which means an average Return on Assets has a value of 6.92% and a standard deviation of 0.1151% or 11:51. Companies that have an average value below the standard deviation can be said is likely to have a major change every year. Return on Assets that have a minimum value is PT. Bayan Resources Tbk in 2014 amounted to -0160 or -16% and the maximum value is PT. Harum Energy Tbk in 2011 amounted to 0380 or 38%.

#### **Estimation Results Panel Data Regression Models Simultaneously**

Based on the test pairs for each model, so in this study using a random effect in the model of panel data regression method. The third estimate of the panel data regression model aims to strengthen the conclusion of testing in pairs as a basis for recommending the use of fixed effect model to be analyzed further. The test results estimate a regression model to analyze the influence of independent variables on the dependent variable of suitability model (goodness of fit) are shown in Table 1.4, the following:

Tabel 2 Panel Data Regression Model												
	PLS			FEM			REM					
	Coeff.	t-Stat.	Prob.	Coeff.	t-Stat.	Prob.	Coeff.	t-Stat.	Prob.			
Variabel												
Constants	0.200	0.011	0.991	-1.296	-0.107	0.916	-0.421	-0.036	0.970			
Inflasi	-0.108	-0.069	0.945	-0.014	-0.013	0.990	-0.066	-0.066	0.948			
Interest Rate	0.171	0.066	0.948	0.025	0.014	0.990	0.106	0.063	0.950			
Pertumbuhan Ekonomi	0.136	0.034	0.973	0.327	0.116	0.907	0.207	0.079	0.938			
PROPER	-0.136	-0.941	0.352	0.066	0.268	0.790	-0.036	-0.201	0.841			
Debt Equity to Ratio	0.004	0.274	0.786	-0.001	-0.125	0.901	0.001	0.083	0.934			
Return on Assets	4.127	4.050	0.000	4.825	3.539	0.001	4.533	4.130	0.000			
Adj. R-squared	0.313			0.706			0.434					
F-statistic	4.875		7.807			7.529						
Prob.	0.000			0.000			0.000					

Sources : processed researchers (2016)

According to Table 1.4, this study used a model random effect that shows test goodness-of-fit measured by Adjusted R-Squared amounted to 43.4%, which means that the variation changes either rise or fall of Tobins Q can be explained by the variable Inflation, Interest Rate, Economic Growth, PROPER, Debt to Equity Ratio and Return on Assets. While the rest of 56.6% is explained by other variables that are not covered in this research model. Significance testing jointly demonstrate the value of F-statistic probability value 0,000 7,529 smaller than  $\alpha = 0.05$ . This means that H0 rejected and Ha is received so that it can be stated that Inflation, Interest Rate, Economic Growth, PROPER, Debt to Equity Ratio and Return on Assets jointly affect Tobins Q with a confidence level of 99 percent.

#### **Regression Model Estimation Results Data Panel Partial**

The estimation results Tobins q determinant using random effects models are shown in Table 1.4 can be written in the form of Equation 1as follows:

# TB = -0421 C - INF + 0106 0066 0207 IR + PE - PROP 0036 + 0001 + 4533 ROA DER

Ci = constant random effect to the company-i, i = 1, ...., 4

Based on the equation 1, this research further testing of the individual panel data regression coefficient partially. Tests were conducted to determine whether each independent variable used in this study affect Tobins q partially with a certain level of 5 per cent alpha ( $\alpha = 0.05$ ). Interpretation for C = -0421 is the linear regression equation has a meaning that if there is no independent variable, then the value of q Tobins of -4.21 percent.

## a. The influence of inflation on the Company Value

Based on t-test showed that the variables of inflation with a regression coefficient of  $\beta 1 = -0066$  negatively affect Tobins q, but not significant at a confidence level of 95 percent, with a probability value of 0948 t-statistic greater than  $\alpha = 0.05$ , which means that the hypothesis alternative (Ha) rejected the null hypothesis (Ho) is accepted. This is consistent with the theory of inflation shows that inflation gives a negative effect on firm value (Junaiddin, 2009), although its influence is weak.

## b. Influence of Interest Rate on Tobins q

Based on t-test showed that the variable interest rate with a regression coefficient of  $\beta 2 = 0.106$  Tobins q affect positively but not significant at a confidence level of 95 percent, with a probability value of 0950 t-statistic greater than  $\alpha = 0.05$ , which means that the hypothesis alternative (Ha) rejected the null hypothesis (Ho) is accepted. This is consistent with the statement Tandelilin (2001: 209) that investors are no longer interested in investment, resulting in the stock price fell.

## c. Effect of Economic Growth to Tobins q

Based on t-test showed that the variables of economic growth with a regression coefficient of  $\beta 3 = 0207$  q Tobins affect positively but not significant at a confidence level of 95 percent, with a probability value of 0938 t-statistic greater than  $\alpha = 0.05$ , which means that the hypothesis alternative (Ha) rejected the null hypothesis (Ho) is accepted. The results are consistent with bambang (2010) which states that economic development does not affect the value of the company.

## d. Proper influence on Tobins q

Based on t-test showed that the variables Proper with a regression coefficient of  $\beta 4 = -0036$  negatively affect Tobins q, but not significant at a confidence level of 95 percent, with a probability value of 0841 t-statistic greater than  $\alpha = 0.05$ , which means that the hypothesis alternative (Ha) rejected the null hypothesis (Ho) is accepted. Company Performance in Environmental Management (PROPER) undertaken by the government have not been able to affect the interests of stakeholders, especially investors and the public in evaluating company performance. Stakeholders such as investors have not PROPER as an instrument of the most important information in making decisions with regard to the increase in the value of the company. The environmental performance does not have a partial effect and direct to corporate value, because the value of the company is heavily influenced by other factors. For example, PT. Medco Energi International Tbk PROPER who won gold for four consecutive decades of years 2011-2014 has a value of Tobin's Q average below the number 1 indicates the cost of changing the company's assets is greater than the market value of the company, then the market would undervalue the company , While PT. Vale Indonesia Tbk, which ranks the red PROPER in 2011 had a value of Tobin's Q is high above 1 at 1.46. This shows the company has done well with their investment decisions. The study findings are not consistent with research conducted by Iqbal, et al., (2013) and Tjahjono (2013) which shows the influence of environmental performance on firm value. However, the results of which have been tested by the researchers showed a consistent relationship with the performance of the market.

## e. Effect of Debt to Equity Ratio Tobins q

Based on t-test showed that the debt to equity ratio variables with a regression coefficient of  $\beta 5 = 0.001$  Tobins q affect positively but not significant at a confidence level of 95 percent, with a probability value of 0.934 t-statistic greater than  $\alpha = 0.05$  means the alternative hypothesis (Ha) is rejected and the null hypothesis (Ho) is accepted. This shows that many companies that rely on debt as a source of funding than using their own capital to launch the company's activities which will enhance shareholder value. Therefore, the high DER not necessarily indicate poor condition of a company. For example, a company engaged in the financial sector such as banks, insurance companies, investment companies tend to have a high DER. Because most of the funds it manages are third party funds. In this case the third party fund accounting is considered as liabilities (debts). DER so can not be used as the main reference in assessing the condition of a company. There needs to be more support ratio variables to describe the condition of a company. This finding is consistent with the advice given in the study Barasa (2009), Ogolmagai (2013), Sharif (2014). However, this study deviates from Gamayuni study (2015) which states that the DER has a significant positive effect on firm value.

## f. Influence Return on Assets to Tobins q

Based on t-test showed that the variable return on assets with a regression coefficient of  $\beta 6 = 4,533$  Tobins q affect positively and significantly associated with a 95 percent confidence level, where the value of t-statistic probability of 0.000 smaller than  $\alpha = 0.05$ , which means the alternative hypothesis (Ha) is accepted and the null hypothesis (Ho) is rejected. Interpretation for  $\beta 6 = 4,533$  is if there is an increase in return on assets of 1 percent, assuming other variables unchanged (ceteris paribus), then Tobins q will increase by 4,533. The rate of return earned describe how good the company's value in the eyes of investors. If the company recorded a large profit level, then this will motivate the investors to invest in stocks, so stock prices and demand for stocks will increase. The results of this study are consistent with the results of research conducted by Riantani, et al (2011) and Fahrizal (2013).

## Conclusion

Based on the above discussion, it can be concluded that simultaneous environmental performance, the performance of fundamental and macroeconomic factors affecting the value of the company, but individually that greatly affects the value of the company is the fundamental performance.

## Suggestion

For further research suggested enlarging the size of the sample, for example using an object other than mining companies. Because the sample mining companies that participated in the PROPER not too much.

For the measurement of environmental performance variables are expected to use the gauge in addition to PROPER, because not all companies on the Stock Exchange were registered for the PROPER. This research can be used in general and broad, then for further research is expected to extend a vulnerable time, adding variables because of many things that can affect the value of the company, using the research subjects are not only limited to the mining sector listed on the Indonesia Stock Exchange.

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