ANALYSIS OF FINANCIAL PERFORMANCE AND ECONOMIC VALUE ADDED IN COAL MINING COMPANIES IN INDONESIA
(Case Study: PT Bukit Asam Tbk Compared to PT Adaro Energy Tbk from 2013 to 2017)

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ABSTRACT

Poor condition in global economy affects declining in Indonesia coal price since 2012. This condition rebound in 2017 which makes coal industry has a bright future. Many coal companies compete to each other to become a leader in coal sector. The competition clearly shown between PT Bukit Asam Tbk (PTBA) as a state-owned company in coal sector which has the largest coal reserves and PT Adaro Energy Tbk (ADRO) as a private company which has big capital. ADRO begin to beat PTBA through its vertical integration in the supply chain which succeeds to reduce its operating cost. Related to the competition among them, measurement formulated in Decree of Ministry of State Owned Company (BUMN) KEP MEN 100/MBU/2002 is used to measure the financial performances of these companies to get the best coal company. Eight financial ratios which cover profitability, liquidity, activity, and solvability used to calculate company's health which results in three levels of financial health. To complete the assessment, analysis of Economic Value Added (EVA) is used to measure the value added produced by a company which concern to the invested capital and the risk. The result is PTBA can be categorized as a healthy company with level AAA from 2013 until 2017. In the other sides, ADRO also shows healthy condition although the level was less than PTBA, which got AA level from 2013 to 2017, except in 2015 the company only got level A which caused by a lower demand in an export market. Moreover, PTBA can provide EVA while ADRO cannot produce any EVA in those periods. Those assessments are important to choose who is the best between PTBA and ADRO, also to understand how well a business is performing, and which areas needing improvement.

KEYWORDS: *Financial Performance, Financial ratios, Economic Value Added, Coal Company, Healthy Company.*

1. INTRODUCTION

Indonesia is the world's top five coal producers in 2016 and currently ranked ninth of global coal reserves. As a leading coal exporter, Indonesia offered the medium-quality type of coal which has around 5100 calorie/gram to 6100 calorie/gram and low-quality type which has less than 5100 calorie/ gram. Coal is the primary energy that is very dominant in power plant. Indonesia's coal sector has been hit hard in recent years, following the other commodities price. The declining was caused by many factors such as over-dependence to export markets and many countries start to cut back their coal consumption regarding concerns over climate change. After dropping to below 50 USD in 2016, in the next year coal prices have steadily rebounded back to the 2011 level of above 90 USD per tonne. Coal's price recovery as an effect of increasing demand in India and cutting production in China by 2017. Promising prospect in coal industry also as an effect of the Indonesian government's 35 gigawatts (GW) electricity project which will still rely on coal to increase the nation's electrification ratio. This project is expected to sustain demand for coal for decades to come and should play a key role in shoring up demand for domestic coal. Therefore, many coal companies in Indonesia compete to give an impressive performance year by year. Improving their performances are important to generate large revenue and maintain the company's sustainability.

Measuring the performance of a company can be seen from financial ratio analysis. It can describe how a company manages its resources to generate profit. The financial ratio can be classified to three types such as liquidity ratio, solvability ratio, and profitability ratio (Riyanto, 2016). The existence of performance evaluation especially on state-owned enterprises, then the government set a policy to know the actual financial condition of the company. The policy is in accordance with the Decree of the Minister of state-owned enterprises No. KEP100 / MBU / 2002 with the objective of measuring the financial health performance of the company which concern about four types of financial ratios such as profitability ratio, liquidity ratio, activity ratio, and solvability ratio. This perspective only calculates eight ratios which contain of the Return on Equity (ROE), Return on Investments (ROI), Cash Ratio, Current Ratio, Collection Period, Inventory Turnover, Total Assets Turnover, and Equity-to-Asset Ratio. However, there is a weakness of financial ratio which is the cost of capital which excludes from the calculation. This means that companies cannot ensure that they had succeeded to generate profit. Therefore, to complete the assessment, calculate an Economic Value Added (EVA) is needed. It is used to measure the value added produced by a company by reducing the cost of capital that arises because of the investments made. Based on research of Nguyen (2013), EVA is considered as one of the most reliable measurement of managerial skills of company owners as well as a good indicator of a company's value growth in the future.

There is a state-owned company in coal mining industry that always give the best performance from year to year, namely PT Bukit Asam Tbk (PTBA). PTBA is the oldest coal mining company which has the largest coal reserves in Indonesia. The company sells its products primarily to the domestic market (the state electricity company Perusahaan Listrik Negara (PLN), Pusri and cement industry). It has a long contract with PLN to support the government program. This contract is one of the advantages of PTBA when export market is unstable. PTBA diversified its business line to several sectors through its 12 subsidiaries and 11 sub-subsidiaries which supported the parent company. These subsidiaries are engaged in the coal business, coal trading, power generation, logistic, CBM gas and Investment.

However, good business prospect and huge capital that PT Adaro Energy Tbk (ADRO) as a private company has succeed to attract many investors and beat PTBA as a well-known player in coal sector. ADRO has vertical integration business model which integrate pit to power through its subsidiaries including coal mining, service and logistics, and power. This business model brings ADRO to the best management system and succeeds to differentiate itself from other mining company. ADRO sells its product to export market and only around 20% sold for Indonesia market. The bright future of coal sector is a main reason to assessed performance of coal company in Indonesia. The comparison between PTBA and ADRO is attractive due to the different company ownership, different market, but both company has their own core competencies which is PTBA as the largest coal reserves and ADRO as the largest capital in coal sector in Indonesia.

This study assessed the financial performance through financial ratios and EVA in PTBA as a state-owned company and compared to ADRO as a private company. Financial ratio is very useful to measure the business performance and it can be used to predict the failure (Edmister,1972). Other researcher concludes that there is a positive link between undertaking management practices and financial performance (Schwenk & Shrader, 1993). Therefore, it can answer some questions such as how the financial performance of both coal companies is based on ministerial decree state-owned enterprises No. KEP-100 / MBU / 2002, who is the better coal company in terms of financial performance and which area that need to improve in both companies. Moreover, could PTBA and ADRO generate EVA to see the rate of return on their invested capital and the last is how much EVA that both companies can gain. Overall, the most important is “who is the best among them?”.

2. Business Issue Exploration

Analyzing the company performance is the assessment of how well company can manage its resources and generates profit. It also useful for predicting the performance capacity of the firm to generate cash, available resources, and the effectiveness of the company in utilizing resources. Financial ratio analysis is an easy method to measure the company’s financial performance. Beside financial ratios, company has many ways to evaluates its performance depends on what indicator that company used. There are 4 types of approaches based on the sources of input and valuation processes such as income approaches, market approaches, asset-based approaches and option pricing approaches (Koller, Goedhart & Wessels 2000, 47). For this case, author used income approaches to assess every asset which has an intrinsic value that can be estimated based on its cash flow, growth, and risks (Nguyen, Vu Thuy Linh, 2003). Economic Value added is one of the components of income-based approach. Based on Uyemura et al. (1996), EVA also has the best correlation with company wealth. Compared to other accounting measures, namely net income (amount), EPS, ROE and ROA. The results of their regression analysis that they did shown that EVA give 40% correlation with shareholder wealth creation.

Based on the decree of Ministry of State Owned Enterprises No. KEP-100/MBU/2002 to measure the financial health of the company, there are some indicators that will be used to calculate the total weight of the company. Table 1 below shows the indicator of the performances measurements. There are four types of financial performances, such as the profitability performances, liquidity performances, activity ratio, and solvency ratio. Additionally, this decree used to validate the performance of those enterprises whether in the level of healthy or not which can be seen in Table 2 below.

Table 1 List of Weight measurement indicators

	Indicators	Weight	
		Infra	Non - Infra
Profitability	ROE	15	20
	ROI	10	15
Liquidity	Cash Ratio	3	5
	Current Ratio	4	5
Activity	Collection Period	4	5
	Inv. Turn Over	4	5
	Total Assets Turn Over	4	5
Solvability	Equity to Assets Ratio	6	10
	Total Weight	50	70

Source: Decree of Ministry of State Owned Company No. Kep 100/MBU/2002

Table 2 Company's Health Rating

No	Category	Rating	Total Score (TS)
1	Healthy	AAA	TS>95
		AA	80<TS<=95
		A	65<TS<=80
2	Less Healthy	BBB	50<TS<=65
		BB	40<TS<=50
		B	30<TS<=40
3	Unhealthy	CCC	20<TS<=30
		CC	10<TS<=20
		C	TS<=10

Source: Decree of Ministry of State Owned Company No. Kep 100/MBU/2002

To measure this performance, variables and formula needed can be got in the decree of Ministry of State Owned Enterprises. Table 3 below summarized the formula to measure these eight indicators.

Table.3 Formula of Financial Ratios

Indicators		Formula
Profitability	ROE	(Net income/Equity) x 100%
	ROI	(EBIT + Depreciation)/ (Total Asset-Fixed Asset) x 100 %
Liquidity	Cash Ratio	((Cash + cash equivalents)/Current Liabilities) x 100 %
	Current Ratio	(Current Asset/Current Liabilities) x 100 %
Activity	Collection Period	(Accounts Receivables/ Revenue) x 365 days
	Inv. Turn Over	(Inventory)/(revenue) x 365 days
	Total Assets Turn Over	(Total Revenue/Capital Employed) x 100%
Solvability	Equity to Assets Ratio	(Total Equity / Total Assets) x 100%

Source: Decree of Ministry of State Owned Company No. Kep 100/MBU/2002

Based on the decree of a ministry of state-owned enterprises No. KEP 100/MBU/2002, the weighted of each ratio can be seen in Table 4 until Table 11 below.

Table 4 ROE Assessment score

Return on Equity in percentage (%)	Score
ROE > 15	20
13 < ROE ≤ 15	18
11 < ROE ≤ 13	16
9 < ROE ≤ 11	14
7.9 < ROE ≤ 9	12
6.6 < ROE ≤ 7.9	10
5.3 < ROE ≤ 6.6	8.5
4 < ROE ≤ 5.3	7
2.5 < ROE ≤ 4	5.5
1 < ROE ≤ 2.5	4
0 < ROE ≤ 1	2
ROE < 0	0

Table 5 ROI Assessment score

Return on Investment in percentage (%)	Score
ROI > 18	15
15< ROI ≤ 18	13.5
13< ROI ≤ 15	12
12< ROI ≤ 13	10.5
10.5 < ROI ≤ 12	9
9 < ROI ≤ 10.5	7.5
7< ROI ≤ 9	6
5< ROI ≤ 7	5
3< ROI ≤ 5	4
1< ROI ≤ 3	3
0< ROI ≤ 1	2
ROI < 0	1

Source: The decree of Ministry of State Owned Enterprises No. KEP 100/MBU/2002

Table 6 Cash Ratio Assessment score

Cash Ratio (%)	Score
Cash ratio ≥ 35	5
25 ≤ Cash Ratio < 35	4
15 ≤ Cash Ratio < 25	3
10 ≤ Cash Ratio < 15	2
5 ≤ Cash Ratio < 10	1
0 ≤ Cash Ratio < 5	0

Table 7 Current Ratio Assessment score

Current Ratio (%)	Score
Current Ratio ≥ 125	5
110 ≤ Cash Ratio < 125	4
100 ≤ Cash Ratio < 110	3
95 ≤ Cash Ratio < 100	2
90 ≤ Cash Ratio < 95	1
Current Ratio < 90	0

Source: The decree of Ministry of State Owned Enterprises No. KEP 100/MBU/2002

Table 8 Inventory Turnover Assessment score

Inventory Turnover (IT in days)	Adjustment (days)	Score
IT ≤ 60	IT > 35	5
60 < IT ≤ 90	30< IT ≤ 35	4.5
90 < IT ≤ 120	25< IT ≤ 30	4
120 < IT ≤ 150	20< IT ≤ 25	3.5
150 < IT ≤ 180	15< IT ≤ 20	3
180 < IT ≤ 210	10< IT ≤ 15	2.4
210 < IT ≤ 240	6 < IT ≤ 10	1.8
240 < IT ≤ 270	3< IT ≤ 6	1.2
270 < IT ≤ 300	1< IT ≤ 3	0.6

Table 9 Total Assets Turnover Assessment score

Total Assets Turnover (%)	Adjustment (days)	Score
TATO >120	TATO > 20	5
105< TATO ≤ 120	15< TATO ≤ 20	4.5
90 < TATO ≤ 105	10< TATO ≤ 15	4
75< TATO ≤ 90	5 < TATO ≤ 10	3.5
60< TATO ≤ 75	0< TATO ≤ 5	3
40< TATO ≤ 60	TATO ≤ 0	2.5
20< TATO ≤ 40		2
TATO ≤ 20		1.2

Source: The decree of Ministry of State Owned Enterprises No. KEP 100/MBU/2002

Table 10 Collection Period Assessment score

Collection Period (CP in days)	Adjustment (days)	Score
CP ≤ 60	CP > 35	5
60 < CP ≤ 90	30 < CP ≤ 35	4.5
90 < CP ≤ 120	25 < CP ≤ 30	4
120 < CP ≤ 150	20 < CP ≤ 25	3.5
150 < CP ≤ 180	15 < CP ≤ 20	3
180 < CP ≤ 210	10 < CP ≤ 15	2.4
210 < CP ≤ 240	6 < CP ≤ 10	1.8
240 < CP ≤ 270	3 < IT ≤ 6	1.2

Table 11 Total Equity to Total Assets Assessment score

Total Equity to Total Assets (%)	Score
TETA < 0	0
0 ≤ TETA < 10	4
10≤ TETA < 20	6
20≤ TETA < 30	7.25
30≤ TETA < 40	10
40≤ TETA < 50	9
50≤ TETA < 60	8.5
60≤ TETA < 70	8
70≤ TETA < 80	7.5
80≤ TETA < 90	7
90 ≤ X < 100	6.5

Source: The decree of Ministry of State Owned Enterprises No. KEP 100/MBU/2002

The other measurement is EVA which is the residual income of an investment. The concept of EVA was developed by Stern Stewart & Co., a financial management consulting firm in the United States (Biddle et al, 1997). On the other hand, Economic Value Added is a value that management give to shareholders for certain year (Brigham and Houstan, 2006:68). EVA value can be grouped into three categories, such as:

1. EVA > 0 or EVA is positive, in this position means the management of the company has succeeded in creating economic value added for the company.
2. EVA value = 0 In this position means the management of the company is in break even. The company suffered a setback but at the same time does not progress economically.
3. EVA < 0 or EVA is negative, in this position means there no additional economic value added or the company can't meet shareholders and investors expect.

Based on Anthony (2011) the investment center's residual income or EVA can be calculated as profit before interest expense minus a capital charge. The capital charge can be calculated by applying company's weighted cost of capital (WACC) to the investment. The formula can be described in Table 12 below.

Table 12 Total Equity to Total Assets Assessment score

Indicators	Formula
EVA	NOPAT – (Invested capital x WACC)
NOPAT	EBIT – Tax
Invested Capital	Total Equity + Long-term liabilities
WACC	rd (1- Tc)*(D / V)+ re *(E / V)
Cost of Equity	Risk-free rate of return + Beta × (market rate of return – risk-free rate of return)
Cost of Debt	Interest rate of bank + Inflation rate
Beta Stock	Covariance (ri,rm)/ Variance (rm)
	Note
rd	Cost of debt
Tc	Tax rate
D/V	Portion debt
rE	Cost of equity
E/V	Portion equity
ri	Daily stock closing price of company
rm	Daily stock closing price of market

Source: Anthony, 2011

Therefore, the author uses a conceptual framework to integrate the information and objectives of this paper. Those concepts provide guidance in calculating the ratio and EVA method, examining the performance, and validating the result. The framework that author used can be illustrated as below.

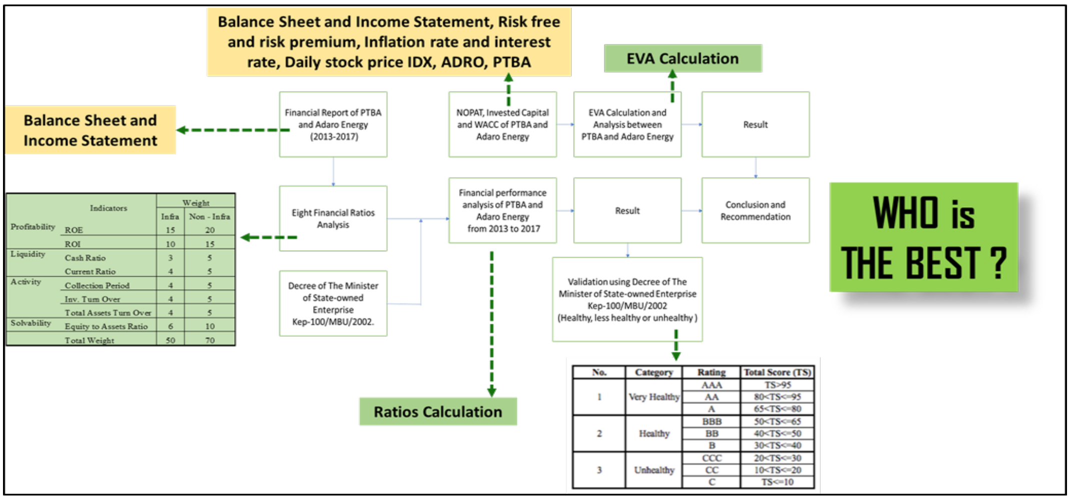

Figure 1 Conceptual Framework
Source: Author, 2018

First, determine the account from balance sheet and income statement of both company that can be got from The Annual Report (2013-2017) from PTBA and ADRO website. The data can be used to calculate the ratios before conduct analysis using eight financial ratios: Return on Equity (ROE), Return on Investment (ROI), Cash Ratio, Current Ratio, Collection Period, Inventory Turnover, Total Asset Turnover, and Total Equity to Total Assets and evaluate the result according to the decree of the minister of state-owned enterprise Kep-100/MBU/2002. Validate the score result based on company level of health. To complete the assessment, EVA of each companies can be calculated with needs several data set such as Daily stock's price of IHSG, PTBA and Adaro Energy from 2013 to 2017 for calculating beta stock in each company accordance to WACC calculation which can be found in Yahoo finance, Risk premium and Risk-Free rate in Indonesia from 2013 to 2017 which can be found on Damodaran website, Inflation and interest rate in Indonesia from 2013 to 2017 which can be found in Bank Indonesia website. These data can be used to calculate the EVA formulation, then compare the result between both companies. The last, conclusions and recommendations can be suggested for investor to choose the best company among them and for each company to improve their performance.

3. Business Solution

3.1 Financial Ratio

Based on the calculation in Table 13, PTBA's performance from 2013 to 2017 can be categorized as a healthy company. Throughout the year the company was awarded as a healthy company with AAA level and a total weight of over 95%. The difference between each year is only in total equity to asset ratio which shows higher score in 2014 to 2016. Although in those years the global economic condition was very apprehensive and almost all PTBA ratios were lower than in other years, the company can maintain its performance even improved its equity ratio to get the better score than before. A low equity ratio will produce good results for stockholders if the company earns a rate of return on assets that is greater than the interest rate paid to creditors.

Table 13 Health Assessment of PTBA

INDICATORS	2013		2014		2015		2016		2017	
	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score
ROE	24,52%	20,0	21,86%	20,0	21,93%	20,0	19,58%	20,0	32,95%	20,0
ROI	34,83%	15,0	29,38%	15,0	35,33%	15,0	33,39%	15,0	57,61%	15,0
Cash Ratio	147,90%	5,0	112,80%	5,0	63,28%	5,0	72,87%	5,0	78,78%	5,0
Current Ratio	286,59%	5,0	207,12%	5,0	154,35%	5,0	165,58%	5,0	246,34%	5,0
Collection Period (days)	46	5,0	40	5,0	42	5,0	59	5,0	100	5,0
Inventory Turnover (days)	29	5,0	29	5,0	33	5,0	29	5,0	22	5,0
Total Asset Turnover	172,99%	5,0	176,33%	5,0	182,21%	5,0	168,37%	5,0	175,13%	5,0
Tot. equity to Tot.Assets	64,77%	8,0	57,37%	8,5	54,98%	8,5	56,80%	8,5	62,76%	8,0
Total Score		**68,0**		**68,5**		**68,5**		**68,5**		**68,0**
Total Weight		**97,14%**		**97,86%**		**97,86%**		**97,86%**		**97,14%**
Healthy Level		**AAA**		**AAA**		**AAA**		**AAA**		**AAA**

Source: Author, 2018

Table 14 Health Assessment of ADRO

INDICATORS	2013		2014		2015		2016		2017	
	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score
ROE	7,3%	10,0	5,6%	8,5	4,5%	7,0	9,0%	14,0	13,1%	18,0
ROI	54,6%	15,0	55,9%	15,0	50,6%	15,0	50,4%	15,0	59,9%	15,0
Cash Ratio	88,0%	5,0	96,2%	5,0	154,6%	5,0	167,1%	5,0	156,1%	5,0
Current Ratio	177,2%	5,0	164,2%	5,0	240,4%	5,0	247,1%	5,0	255,9%	5,0
Collection Period (days)	34	5,0	31	5,0	27	5,0	43	5,0	35	5,0
Inventory Turnover (days)	11	5,0	11	5,0	10	5,0	11	5,0	10	5,0
Total Asset Turnover	239,6%	5,0	261,5%	5,0	245,7%	5,0	158,5%	5,0	164,6%	5,0
Tot. equity to Tot.Assets	47,4%	9,0	50,8%	8,5	56,3%	8,5	58,0%	8,5	60,0%	8,0
Total Score		**59,0**		**57,0**		**55,5**		**62,5**		**66,0**
Total Weight		**84,29%**		**81,43%**		**79,29%**		**89,29%**		**94,29%**
Healthy Level		**AA**		**AA**		**A**		**AA**		**AA**

Source: Author, 2018

Different results are shown by its rival ADRO which is known as the coal company with huge capital investment. Table 14 above illustrates the weight of the health assessment on ADRO. Overall, ADRO's performance can also be categorized as a healthy company. However, compared to PTBA, ADRO got AA level from 2013 until 2017 except in 2015 the company's performance dropped to level A. Declining of performance in 2015 was due to the global coal price which decreased drastically from 95.5 USD/tonne in 2012 to 60.1 USD/tonne in 2015. The decline in export demand greatly affected ADRO's sales where export market become a majority income which contributes around 80%. The highest total weight was in 2017 where the commodities price, especially coal, indicates the enhancement.

Profitability Performance

Profitability ratio of PTBA and ADRO is represented by ROE and ROI. Overall the percentage of ROE of PTBA is greater than ADRO due to the huge portion of ADRO equity which more 10 times than its profit, while the profit of PTBA and ADRO almost the same. On the other side, ROI of ADRO is greater than PTBA. Based on trend from 2013 to 2017, PTBA generates the highest ROE (33%) in 2017. It is caused by the highest profit in that year which reaches 4.547.232 million rupiah. The lowest ROE occurs in 2016 due to an increase of 14% in equity and 16% in non-controlling interest compared to 2015. While fluctuations in ADRO's ROE ratio shows a lower percentage than PTBA. ADRO boosted its revenue in 2017 by nearly twice that of the previous year and by 2017 had been a stunning year with the highest returns. ADRO as a trademark of a coal company with the largest capital can be proven by increasing its equity from year to year. This condition affected the decrease of ROE in 2015 which was also caused by decreasing of profit. This condition affected the decrease of ROE in 2015 which was also caused by decreasing of profit. Overall the ADRO depends on export market, while global coal price drop, it will affect declining in ADRO coal price and its revenue.

The highest ROI of PTBA reach 57,6% in 2017 because there was an increase in EBIT significantly from Rp2.530.807 million in 2016 to Rp5.898.515 million. On the other hand, the lowest ROI is found in 2014 (29,4%) due to increases in cost/tonne to 40,36 USD/tonne from 35,74 USD/tonne in 2013. Therefore, its EBIT decrease 3% from previous year, while capital employed increase year to year. The same trend of capital employed was shown in ADRO since this company perspective is improving the investment because mining is about a long-term investment. Therefore, its capital employed grew rapidly. The lowest ROI ratio was shown in 2015 and 2016 when the global economy was in poor condition. ADRO's coal price in 2015 dropped to 50,5 USD/tonne from 68,8 USD/tonne in 2012 and in 2016 its price below 50 USD/tonne. The highest ROI was found in 2017 due to the improvement of economic condition. PTBA and ADRO should create other innovation to improve their profit. PTBA can adopt ADRO’s strategy to use vertical integration in the whole supply chain which can reduce the cost of production and increase profit. While ADRO can offer a long-term contract in the domestic market to anticipate the declining of global coal price which affects decreasing revenue.

Liquidity Performance

Current ratio and cash ratio represented the liquidity performance of both company. Current ratio in both companies shows the percentage of more than 100%. It means that companies can pay their short-term liabilities with their current assets. PTBA has higher current ratio than ADRO in 2013 to 2014 because ADRO has less cash than PTBA, which reached the peak of 286,6% in 2013. The highest ratio indicates that PTBA has more current asset than current liabilities. However, a current ratio of PTBA in 2015 to 2017 was less than ADRO. However, overall, PTBA still can manage its assets effectively to pay its liabilities, although from 2015 to 2017, most of its short-term debt was financed by its other assets. Increasing current liabilities in PTBA year to year affects declining of cash ratio because cash that PTBA owned only increased slightly. Therefore, the highest cash ratio can be found in 2013 (147,9%) and the lowest cash ratio was in 2015 (63,3%). Low ratio in 2015 was because of a decrease in cash which related to financing activities amounted to Rp1,794.99 billion.

A different trend was shown by ADRO with the increasing of liquidity ratio year to year. The lowest current ratio in ADRO was caused by the highest short-term bank loans and the decrease in trade receivables in 2014. To maintain its liquidity performance, ADRO manages its debt by reducing its trade payable and bank loans. In addition, in 2016 the company added the amount of cash by 46% greater than the previous year. The highest cash ratio can be seen in 2016 which reached a peak of 167,1%. Increasing of cash ratio in 2015 to 2017 became more than 100% indicates that most of the company's current liabilities can be paid by its cash.

Activity Performance

Activity performance can be described with collection period, day's inventory and asset turnover. PTBA's overall trend of collection period (days) increased from year to year since 2013 until 2017 with a slight deterioration in 2014 and peak in 2017. Such increasing trend is caused by the increasing of sales volume and delay of price agreement with PLN, therefore it shows that the company management in collecting money from customers is not so good compared to those of ADRO. The reason for this is because, from the ratio of the collection period, it shows that ADRO has smaller figures than those of PTBA which suggests that the company has better management in collecting money owed by customers throughout the year. The highest ratio occurs in 2016 which ADRO's revenue decline but its receivable increase almost double from the previous year. Declining revenue was due to decline in selling price in 2016.

Similarly, day's inventory preference is when it is relatively small. Day's inventory of PTBA is higher in comparison with inventory management of ADRO, signifying less efficiency in managing in its inventory. However, the lowest day's inventory of PTBA was in 2017 due to increased revenue up to 5% from previous year. Comparing to ADRO, the ratio was stable year to year which only around 10 days. This infers that ADRO has better management to get a significant amount of its inventories to go out of the warehouse and sell to customers. It was supported by a decrease in sales volume when the global economic crisis happened to avoid over stock.

Comparing total asset turnover of PTBA with that of ADRO produces a result that favors more ADRO. PTBA with lower asset turnover shows the less efficient use of its assets than ADRO. The lowest ratio can be seen in 2016 because its capital employed increase to 10% from previous year. Moreover, it is supported by its revenue which has no significant differences in asset turnover in 2013. For the other years, the ratio is in the range of 170% to 180%. On the other hand, ADRO shows a better management of the asset. Declining total asset turnover of ADRO in 2016 compared to the previous year was due to the decreasing of selling price from 55,8 USD/tonne in 2013 to 46,7 USD/tonne in 2016. In addition, there was an increase in capital employed especially the huge cash that company's generated. In 2014 and 2015, ADRO able to maintain its asset turnover by lowering its capital employed from Rp16.709.644 million in 2013 became Rp15.819.102 million and Rp15.072.679 million respectively.

Solvency Performance

Solvency trend in both companies shows the different pattern which can be shown with total equity to asset ratio. For financed the asset, PTBA commonly used its equity. It can be seen from total equity to asset in PTBA which more than 50% from 2013 to 2017. The number of equity increases per year, but significant debt began to emerge in 2014 which causes this ratio to decline. Long-term debt contributes substantially to the increase in debt. This loan is made to support the company's development. The lowest percentage was in 2015 which reached 55%. However, the big loan can be covered by its significant profit in 2017 which affect the increasing of solvency ratio. Solvency trend of ADRO illustrates the increase of equity to asset ratio. The percentage rose to 60% in 2017. This indicates that the liabilities performed by this company provide real results to increase profit and equity through retained earnings. ADRO continues to improve its performance by reducing its debt.

3.2 Economic Value Added (EVA)

After calculating the formula of EVA, the important variable such as NOPAT, invested capital and WACC can be found and compare to both company. Table 15 and Table 16 below described the calculation of each variable in each company.

Table 15 EVA Calculation of PTBA

EVA PTBA					
In million rupiah	2013	2014	2015	2016	2017
Operating Income	IDR 2.152.838	IDR 2.049.424	IDR 2.468.902	IDR 2.530.807	IDR 5.898.515
Tax	IDR (607.081)	IDR (550.171)	IDR (681.247)	IDR (668.066)	IDR (1.554.397)
NOPAT PTBA	**IDR 1.545.757**	**IDR 1.499.253**	**IDR 1.787.655**	**IDR 1.862.741**	**IDR 4.344.118**
Equity	IDR 7.561.239	IDR 8.525.078	IDR 9.287.547	IDR 10.552.405	IDR 13.799.985
Long-term Liabilities	IDR 1.885.220	IDR 2.754.527	IDR 2.683.763	IDR 2.981.622	IDR 3.674.271
Invested Capital PTBA	**IDR 9.446.459**	**IDR 11.279.605**	**IDR 11.971.310**	**IDR 13.534.027**	**IDR 17.474.256**
WACC PTBA	**9,9%**	**10,5%**	**10,2%**	**10,5%**	**7,9%**
EVA PTBA	**IDR 609.613**	**IDR 312.639**	**IDR 570.173**	**IDR 437.608**	**IDR 2.963.652**

Source: Author, 2018

Table 15 EVA Calculation of ADRO

EVA Adaro Energy					
In million rupiah	2013	2014	2015	2016	2017
Operating Income	IDR 6.573.004	IDR 6.093.510	IDR 4.578.298	IDR 7.895.235	IDR 12.895.325
Tax	IDR (2.343.445)	IDR (1.721.634)	IDR (1.779.141)	IDR (2.765.586)	IDR (5.325.624)
NOPAT ADARO	**IDR 4.229.559**	**IDR 4.371.876**	**IDR 2.799.157**	**IDR 5.129.650**	**IDR 7.569.701**
Equity	IDR 38.690.238	IDR 40.547.832	IDR 46.255.228	IDR 50.867.111	IDR 55.433.363
Long-term Liabilities	IDR 33.496.335	IDR 29.604.675	IDR 29.674.604	IDR 28.105.694	IDR 26.408.005
Invested Capital ADARO	**IDR 76.423.043**	**IDR 70.152.506**	**IDR 75.929.832**	**IDR 80.959.467**	**IDR 81.841.368**
WACC ADARO	**9,4%**	**10,5%**	**9,9%**	**8,8%**	**9,3%**
EVA ADARO	**IDR (2.976.596)**	**IDR (2.961.931)**	**IDR (5.200.573)**	**IDR (1.999.582)**	**IDR (70.549)**

Source: Author, 2018

PTBA always generates EVA year to year, although the value fluctuated from 2013 to 2017 and the peak at 2017. Global economic growth that has not improved since 2012 to 2016 led to declining of global market demand including coal. With the declining demand, there is an oversupply in the market so the company's average price of coal in the global market declines. This condition also affects the decline in domestic coal prices. In 2014, the slowdown in the world economic growth has impacted on commodity price.

However, PTBA able to manage the increasing revenue through selling the high calorie-coal and using its good reputation to still manage the coal price. PTBA also increasing production volume to gain higher income, but it affected the higher production cost which cost/tonne was 13% higher than in 2013. Increasing cost was due to excess power and an increase in the cost of freight railway. Therefore, EVA in 2014 was lower than 2013.

In 2015, the European economy is starting to improve, but America and China are still weak. Global economic growth in that year is at its lowest level since the monetary crisis. Therefore, demand for exports declined sharply so that commodity companies were affected. PTBA has a long-term contract with the domestic market which very helpful in this uncertain situation, so the company can generate higher revenue than its peers. PTBA used efficiency in its operation process such as choosing coal with low strip ratio. In this year, since SBS as PTBA subsidiaries which are engaged in contractor sector was established, PTBA used its own contractor which offers lower cost than its outsourced contractor. Therefore, PTBA can generate higher EVA than in 2014.

However, in 2016 PTBA cannot produce higher EVA due to significantly increase in invested capital which reaches 13% higher than the previous year. EVA in PTBA decline Regarding the transformation of PTBA to an energy company, the company also remained to focus its industry on the future. Therefore, PTBA increases its investment such as bought many equipment and machines from Russia to increase its efficiency. In 2017, as the golden year to the coal company, PTBA succeed to creates the highest EVA because of the significant increase in profit.

On the other hand, ADRO cannot produce EVA from 2013 to 2017. It is because the company has the highest investment, but its NOPAT is unproportionate with its investment. ADRO increases its investment year to year. In 2014, ADRO decreased its long-term borrowing because of the poor market condition. In the same year, ADRO's NOPAT is better than the previous year which affected increasing company's return. However, it still cannot produce any EVA due to the increase in inflation rate which affected the increase in WACC. In 2015 the revenue of the company declined because of global economic growth slowed and affected demand for commodities decrease.

The good momentum of the export market starts in the end of 2016, which made ADRO and PTBA took advantage of it through increased their investments. ADRO acquired metallurgical coal deposits, increased in retained earnings in line with the increased in profit, improved its electricity business through PT Bhimasena Power Indonesia (BPI) with project financing from Japan Bank for International Cooperation and nine commercial banks, and PT Tanjung Power Indonesia (TPI) received a financing from Korean Development Bank and five commercial banks. However, as described in figure 3.10 above, the average selling price was 7,6% lower than the same period of the previous year. Although sales volume increased in five years, ADRO could not produce any EVA from 2013 to 2017. The condition changes after global coal price increase drastically in 2017. ADRO utilized this good moment by lowering its production volume but still generate the higher profit because there was an increase in coal price, improving its equity and lowering its debt. In 2017, Although this company not able to create any EVA, the calculation of EVA shows the improvement. This company proof that its long-term investment with efficiency in production cost through vertical integration will give the good result.

4. Conclusion and Recommendation

The purpose of this paper is to evaluate and compare the financial performance of PTBA and ADRO, which are coal mining company in Indonesia within the period of 2013 to 2017 to make investors easier to choose who is the best company among them and give the suggestion to the companies about area which need improvement. The financial performance of those companies was confirmed with the decree of ministry state-owned enterprises KEP-100/MBU/2002 and resulted the financial health level. Although there are operation and administration aspects in the decree, but the research only focus on financial aspect. In addition to complete the assessment, analyzing economic value added in coal mining industry also needed.

Analysis of four categories of ratios (profitability, liquidity, activity, and solvency) conclude that PTBA is stated as a “Healthy” company with the highest level (AAA) in every year, while ADRO is also stated as a “Healthy” company with level AA in almost all years except in 2015 which only got level A. However, overall those companies can be categorized as a “Healthy Company”. The clear difference between these companies is that in 2015 when global economic growth slowed, ADRO's performance, which is largely derived from exports, depends on global conditions. While PTBA managed to maintain its performance due to long-term contract with domestic market which is not too affected by global coal price fluctuations. Therefore, PTBA as state-owned company which succeed to maintain its performance due to pressure from government in terms of the annual growth of profit and production volume is better financial performance than ADRO from 2013 to 2017. This is because PTBA must keep up with production and investment increases due to higher costs and liabilities, so even though PTBA's investment is not as large as ADRO but financial performance stability can be maintained.

Moreover, there is not only financial health assessment of the company but also value creation that company can provide is also important to assess company performance. The objective is to know the efficiency in company’s investment. PTBA able to generates EVA since 2013 to 2017 although the amount has fluctuated from 2013 to 2016. The highest EVA of PTBA was in 2017. While ADRO cannot create any EVA along the year due to the large investment that company did exceed the revenue generated. Therefore, PTBA not only maintains its stability of financial performance but also could give the value creation to attract new potential investors.

Four categories of financial ratio give different implication for companies. Profitability ratio which measure the income or operating success of a company for a given period of time can determine how management is doing at controlling costs, affects the company’s ability to obtain debt and equity financing, and the ability to grow. Capital invested should be able to produce a balanced return in order to avoid losses in the company. As happened with ADRO with low ROE indicates that the company has not been able to maximize capital to generate profit. So, ADRO should have improved its revenue.

Liquidity ratio is very important for management in the filing of debts to creditors such as banks and suppliers. This is because creditors can see the company's ability to pay its current obligations and have cash for financing unexpected things. The amount of debt can reduce this ratio, so when the unstable economic conditions happened, it must be covered by cost reduction and the transfer of short-term loans to long-term loans which like happened to ADRO and PTBA.

The third ratio is activity ratio which Evaluates the levels of output generated by the assets (input) used by a company. Less number of days inventory and days receivable of the company indicate the good management efficiency. The differences between PTBA and ADRO is PTBA less effective in manage its days receivable that increase to 100 days in 2017. It is due to the delay in price agreement with PLN. It is not happened in ADRO because the company has good management control. Therefore, PTBA should improve its activity ratio.

Solvency ratio also give the significant role in financial performance assessment. It is about the capital structure of the company. Higher debt means company will have difficulties to obtain further borrowings. Bankruptcy may occur when the financiers demand repayments. Both PTBA and ADRO has a same range in divided their capital structure to equity more than debts. ADRO also reduce its debt to increase this ratio.

Besides financial ratio, EVA analysis also gives the impact to the management. This assessment can be used for a risk incurred by the providers of finance, EVA could provide a better focus for drivers of value and focus on cost of capital. EVA can see the real income from investments made after considering the cost of capital. So, whether a company with a large investment can produce a balanced return? This is the goal of EVA measurement. As happened to ADRO which has a much larger investment than PTBA. Both companies have cost of capital in the same range, but ADRO's revenue has not been able to return its investment while PTBA continues to produce value added every year. This illustrates that ADRO still has not been able to utilize its investment to achieve a balanced profit even though its revenue rose.

The recommendation for PTBA is reduce its cost through vertical integration in supply chain. Improve the collection period ratio by pay attention to the detail of management system such as the accuracy of timing in term of price agreements with PLN. Other way to improve its days receivables is by giving a discount for bulk quantity purchase. Moreover, PTBA should keep up its good performance and write the EVA in its financial statement to attract new investors.

The financial performance of PTBA as the state-owned company does not depend on export demand. When the weaker growth of global economic happened, PTBA could find a strategic way to avoid the decrease in profit. A long-term contract with domestic market could be the solution to avoid declining profit due to a decrease in export demand. Therefore, ADRO could use this way to improve its revenue. Maintaining its portion of equity and debt in invested capital to improve its financial performance, especially to create value creation.

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