

**FINANCIAL PERFORMANCE ANALYSIS AND VALUATION
OF A FINANCIALLY DISTRESSED NEW COMPANY
IN THE INDONESIAN MINING SECTOR:
A CASE STUDY OF P.T. CAKRA MINERAL TBK.**

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Abstract. Mining sector is the 4th largest economy sector in Indonesia. It contributed to around 16-20% of the country's GDP and export. In 2009, the government introduced Mining Act law to improve the mining sector and Indonesia's economy as a whole. Although well-meant, it introduced a myriad of problems in the industry, which impacted the sector as a whole. In addition, falling selling prices, weakening rupiah and lack of infrastructure resulted in decreasing financial performance for mining companies in Indonesia. Enter PT Cakra Mineral Tbk, a new mining company in Indonesia since 2012. It was an agriculture company specializing in cassava and palm oil before it decided to change its business core to iron ore mining in 2011, based on a feasibility study it conducted since 2010. The company performed terribly for the past years, which is very different compared to the expected performance of its feasibility study. In comparison, many leading mining companies in Indonesia maintained profitability in the last 5 years despite various problems and limitations in Indonesia's mining industry. As such, this study aims to assess this company's financial performance and value, compare it with the aforementioned leading mining companies and provide recommendation to be used by its management and investors. The results of this study is that PT Cakra Mineral performed terribly in the last 5 years compared to benchmark companies. In addition, the company generated zero revenue in 2010-2011, rendering DuPont analysis unusable in those years. Market multiples valuation turned out to be inconclusive due to unique circumstances surrounding its stock (CKRA). Discounted cash flow valuation revealed that CKRA is overvalued in base, optimistic and pessimistic scenarios. In conclusion, this study recommends that the company focus more on zircon sands mining, improve mining asset utilization, and acquire more debts if and when the company turned around to become profitable. For investors, it would be wise not to invest in the company at least for the next 5 years, and to stay away from the mining industry in the foreseeable future.

Keyword : Financial performance, valuation, discounted cash flow, mining industry.

Introduction

PT Cakra Mineral Tbk is a newcomer in the mining industry. Originally, it was an agricultural company, specializing in the cassava and palm oil industry. However, due to intense competition and difficulties in harvesting and maintaining its cassava and palm plantations, it changed its core business to mining activities in 2011. The company conducted an independent feasibility study of this core business change, looking at the favorable prospects in the iron ore mining industry. The feasibility predicted that iron ore prices will steadily rise all the way to 2015, and expects the new venture to achieve a sustained net profit margin of more than 25% for 5 years. The study also looks at the growing steel and construction industry in Indonesia, citing a correlation between the number of new infrastructure construction projects and demands of iron materials. In the end, the company was persuaded to divest all of its agricultural assets and acquire PT Persada Indo Tambang, an iron ore mining company. It was

not specified whether this company already have possession of smelter facility or not during the acquisition.

However, the feasibility study did not anticipate the sharp decline of iron ore prices, as well as other metals and minerals prices across the world. In addition, the introduction of the Mining Act law in 2009 have triggered various changes in the sector's landscape. The law, effective as of 2014, has mandated for every mining companies in Indonesia to build ore smelters to process minerals and add production values, as opposed to export it directly to the market as cheap raw materials. It is forbidden to export minerals as raw materials without processing them first to be half-processed materials. Failure to comply will result in the suspension of any business activity by the government. Although this law aims to stimulate economic growth and employment, it has caused various complications in the industry (CRMS Indonesia, 2014). Building/acquiring a smelter facility takes serious financial investment, and Indonesia's mining companies have already established a presence in the raw materials market, but not in the processed materials market. This have prompted many companies to simply ramp up production of raw materials before the law takes effect.

The company never managed to meet the expected profitability of its feasibility study, with minor losses in 2012, a slight profit in 2013, and a catastrophic financial results in 2014. In addition, the company did not generate any revenue in 2010 and 2011 because of extreme difficulties in palm industry and the transitional phase of its core business from agriculture into mining activities. In 2014, the company actually recorded a meager revenue of Rp 30 billion and a net loss of -Rp 281 billion, a staggering -920% net profit margin. These results is a far cry from the projection of its feasibility study in 2011, which predicts that the company will generate revenues of Rp 145 billion and profits of Rp 42 billion in 2014 (net profit margin = 29%). By studying at its financial reports, it can be seen that this massive loss is mainly caused by a staggering Rp 400 billion of goodwill accounts, which means that the company bought a cash-generating asset that was overvalued for 400 billion than its intrinsic prices (goodwill calculation takes the acquired assets' liabilities into account and transfers it to acquiring company's income statement, which can result in significant implications to the acquiring company's profitability, like in this particular case). Although the company did not provide additional details about this acquisition, it is clear that the company was pretty desperate in acquiring that particular asset. The company also cited unexpected downfall of iron ore prices and export bans that prevented the company to sell its iron commodities, leading to huge underutilization of its mining facilities.

Table 1.1. PT Cakra Mineral Tbk. expected vs. realized financial

		2012	2013	2014
Expected	Revenue	91.800	117.450	79.736
	Net profit	24.999	33.386	42.316
	Profit margin	27.2%	28.4%	29.0%
Realized	Revenue	24.524	46.233	30.592
	Net profit	-3.958	258	-281.665
	Profit margin	-16.14%	0.56%	-920.71%

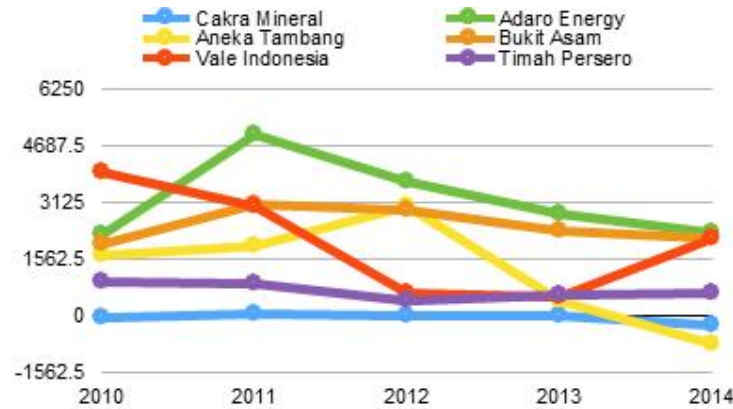


Figure 1.1 PT Cakra Mineral Tbk. profits compared to other mining companies in Indonesia.

Yet in the onslaught of these limiting regulations and various challenges, many leading mining companies in Indonesia succeeded in maintaining profitability in the last 5 years. For example, PT Adaro Energy and PT Bukit Asam managed to record profits more than Rp 2,000 billion per year from 2010-2014. PT Timah Persero managed to record a healthy profits of Rp 900-500 billion in the same time period. PT Vale Indonesia even managed to quadruple its profits in 2014 after experiencing a sharp decline of profitability in 2012-2013. For these reasons, these companies are ideal for benchmarking, as they are the top performing companies in the midst of uncertainty and decline of the mining industry.

On a related note, PT Cakra Mineral's stock performance is very unique compared than these other companies, with its price stuck at Rp 275 from 2011 until mid-2012 because of the suspension of its stock by IDX authorities. IDX stated that the reason of this suspension is that there are some unusual market activities surrounding the company's stock (IDX:CKRA), with its price skyrocketed up to 312% in a span of just two weeks. The company was also late in submitting its annual financial report, driving the suspension period even longer. During this suspension period, 80% of its stake was purchased by Redstone Development Ltd, a mining investment company based in Australia. After the acquisition, there is a tender offer for the common shareholders to sell the stocks to Redstone at the average highest price in the last 90 days of the exchange, in accordance to the rules set by IDX. In 20 July 2012, IDX authorities decided to lift the suspension of CKRA. Figure 1.2 and 1.3 shows the profitability and stock performance of PT Cakra Mineral Tbk compared to leading mining companies in Indonesia.

For these reasons, this study aims to assess the financial performance and valuation of PT Cakra Mineral, a financially distressed new company in Indonesian mining sector. This study will compare the performance of PT Cakra Mineral Tbk. with other leading companies in the industry, such as PT Adaro Energy, PT Bukit Asam, PT Timah Persero, and PT Vale Indonesia. The result of this project will produce financial performance and valuation assessment of PT Cakra Mineral Tbk, as well as providing recommendation for the management as well as the investors.



Figure 1.3 Stock performance of CKRA compared to other mining companies in IDX for the year 2010-2014. Note the flat line beginning in the early 2011. The pale blue thin line represents the IDX market vector.

Literature Review

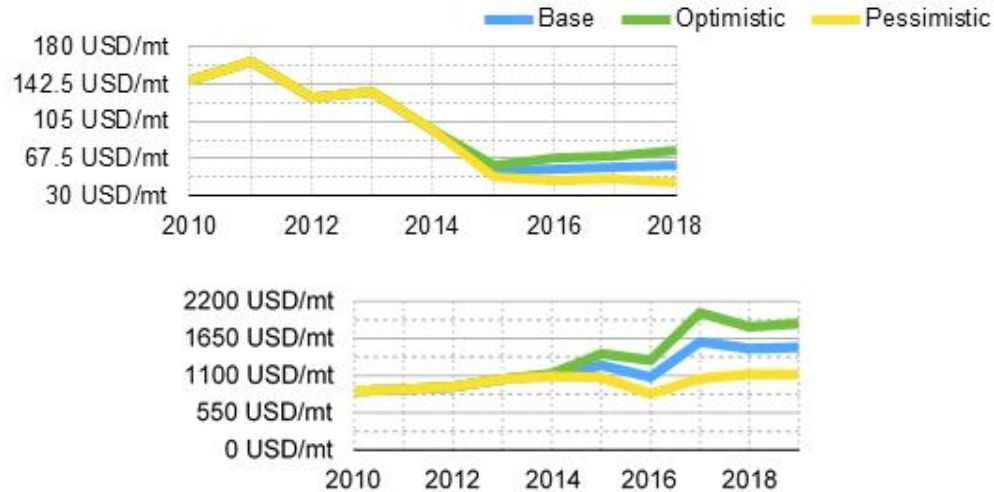
Current condition of Indonesian mining sector

In 2013, the Ministry of Trade of Indonesia published a report about the condition of mining sector in the country. The report begins with explaining that in 2009, the Indonesian government introduced the Mining Act Law (UU Minerba), which mandated every mining companies to build smelters for processing the raw materials into half processed materials. This law is also known as the downstream policy. The government believes that this new regulation will add values to the mining sector in Indonesia, since most mining companies simply sell their commodities in raw form for cheap prices compared to global prices of the same commodities. However, instead of building smelters, many companies simply ramp up production and sell their commodities in raw form, driving production volumes up significantly and bringing the prices even lower. The report also predicted that there will be insufficient operationally-ready smelters in the country to process all the commodities mined in Indonesia for 2015. The report concluded with several recommendations: 1) that there must be a unity across every ministries of Indonesia to provide suitable and stable business climate to attract investors, and 2) to give tax incentives and ease of legal permits to the companies that are building smelters to speed up the process of smelter constructions across the nation. The report also provided a projection of mining sector exports up to year 2018 presented in Table 2.1.

Table 2.1 Projected mining industry export 2014-2018, in billion USD

Scenario	Detail	2014	2015	2016	2017	2018
Basic scenario: without downstream policy; export growth of 10%/year	One export	7.13	7.84	8.62	9.49	10.44
	Processed export	-	-	-	-	-
	Total export	7.13	7.84	8.62	9.49	10.44
Pessimistic scenario: with downstream policy; export growth of 10%/year	One export	-7.13	-7.84	-8.62	-9.49	-10.44
	Processed export	1.57	1.73	1.91	2.10	2.31
	Total export	-5.56	-6.11	-6.71	-7.39	-8.13
Optimistic scenario: with downstream policy; export growth of 25%/year	One export	-7.13	-7.84	-8.62	-9.49	-10.44
	Processed export	1.97	3.94	5.90	7.87	9.84
	Total export	-5.16	-3.9	-2.72	-1.62	-0.6

2.2 Mining industry outlook



The prices of coals, nickel and iron ores have been sharply decreasing in the last 5 years, which results in the falling profitability in mining companies not only in Indonesia, but in the world. Coal and minerals prices is projected to recover slowly in the future, although it will still be lower than 2010-2012 prices (IMF, 2014; World Bank, 2014). However, the volatility and uncertainty of mining industry and its commodity prices presents a few problems: 1) either there are no forecast data for forecast beyond 2020, and 2) the sources themselves warned about the low reliability of these data for forecast beyond 2020. Credit Suisse (2014), Goldman Sachs (2014) and ANZ Alliance (2014) released publications about the outlook of the global mining industry, but limit their research to no more than 2017. Presented in Figure 4.1 are the historical and projected prices of iron ore and zircon sands, the main commodities sold by PT Cakra Mineral.

We can see from the figures above that zirconium sands have a bright forecast compared to iron ore, since its prices has been steadily rising in the past few years. Conversely, iron ore prices have been falling quite heavily in the past years, sending many iron mining companies in the world to the red zone. Coal prices faces significant uncertainty, mostly caused by challenges in India and China coal market, as well as the signing of Paris Conference of Climate Change (DECC UK, 2014). Iron Nickel ore experienced significant price drop from 2012, although it is projected to recover very slowly in the future, since iron and nickel are the main materials of steel and alloys production used for construction and industrial uses (EIU, 2015). Global zircon production and demand is expected to grow for 10%/year (Credit Suisse, 2014) and global iron ore production and demand is expected to grow for 3%/year (Infiniti Research, 2014).

Financial performance analysis

In the book *Principles of Managerial Finance* (2012), Gitman & Zutter laid out the foundations of financial performance assessment in the form of calculating financial ratios, and then analyze and interpret it through time-series approach and cross-section approach to get a comprehensive view of a firm's financial condition. In addition, the combination of these two approach — called combined approach — will provide even more insights of a firm's financial condition both historically and compared to other similar companies. This method is confirmed by research done by Ruth, Lytton and Porter (1991) that have concluded that studying income statement, balance sheet and statement of cash flows will not give every information that are necessary to properly assess an entity's financial condition and performance. The use of various financial measurements will in turn provide both at-a-glance and in-depth knowledge of an entity's financial condition in a more accurate way.

Financial ratio analysis, despite its usefulness and simplicity, is often not indicative enough to properly assess a firm's performance in this modern world. The DuPont method is a way to complement

traditional ratio analysis that involves probability, debt, activity, etc. The DuPont formula and its modified form can easily dissect a firm's ROA and ROE into five ratios that can be very useful for making recommendation for improvement. Thomas J. Liesz (2008) concludes that ROA and ROE dissection of DuPont analysis method is extremely comprehensive in evaluating a firm's performance.

Valuation methods

In his book, *The Dark Side of Valuation: Firms with No Earnings, No History and No Comparable* (2001), Damodaran explained that it is much more difficult to value a young company with no historical data and is operating at a loss, since we cannot predict its growth rate from past revenues. In addition, the calculation of its cost of capital is tricky, since companies with negative earnings often earn less than their cost of capital. That leaves us with the option to assume that 1) the current year that recorded abnormal levels of losses is an anomaly and the company will not repeat such mistakes in the future, and 2) to look at comparable firms/industry trends and assume that the company will follow it sooner or later. Damodaran also stated that valuing these kinds of company for more than 5 years is risky, since there is so much uncertainty in the basic assumptions of the valuation. He also added that the majority of financial analyst at the U.S. only value such companies with a 5-year forecast period.

"An alternative approach to estimating earnings growth is to use analyst estimates of projected growth in earnings, especially over the next 5 years. The consensus estimate of this growth rate is generally available as public information for many US companies and is often used as the expected growth rate in valuation."

(Damodaran, 2012, p. 848).

In addition, Damodaran provided a few examples of valuing negative earnings companies using only 5 years of forecast, some of which are Boston Chicken (2001: 19-23), Aracruz Cellulose (2012: 380), and Daimler Benz (2012: 853). Since PT Cakra Mineral is a company that is publicly traded in IDX, it is only natural to assess its stock performance against other minerals mining companies in Indonesia. Holthausen & Zmijewski (2012) provides the basic ratios of valuing a stock using market multiples, but warned that some multiples are more sensitive than others to change for certain inputs values, as well as the condition of the company and its industry financial condition as a whole. In addition, market multiples should be combined with other valuation approaches, since market multiples are very influenced with certain value drivers such as capital expenditure and working capital requirements. Which brings us to earnings valuation approach, discounted cash flow method. DCF method valuation is calculated with cost of capital, growth and free cash flow projection, which in turn require calculation of projected capital expenditure and working capital. It is also more appropriate to value a company with negative earnings since it takes future prospects into account (Kramna, 2014). Furthermore, Shen & Dong (2001) found that earnings-based approach valuation yields a more accurate assessment of performance and value compared to multiples such as EPS and P/E ratio, since an increase in multiples also signifies an increase in uncertainty and risk factor.

2.5 Theoretical Framework

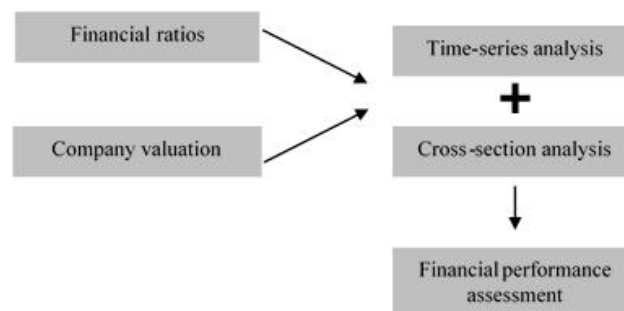


Figure 2.3 Theoretical Framework

Table 3.1 PT Cakra Mineral financial ratios for 2010-2014

CKRA	2010	2011	2012	2013	2014
Current Ratio	42.59	247.35	32.03	77.17	16.90
Asset Turnover	0.00%	0.00%	2.02%	3.87%	2.96%
Debt/equity	1.03%	0.58%	3.46%	0.75%	1.64%
Debt/asset	1.00%	0.58%	3.33%	0.74%	1.61%
Gross Profit Margin	0.00%	0.00%	-24.72%	31.94%	-25.65%
Operating Profit Margin	0.00%	0.00%	-17.60%	1.49%	-920.71%
Net Profit Margin	0.00%	0.00%	-16.14%	0.56%	-920.71%
Return on Asset	0.00%	0.00%	-0.29%	0.00%	-25.93%
Return on Equity	0.00%	0.00%	-0.34%	0.02%	-27.67%

Methodology

Ratio analysis

Time-series approach

We can see that PT Cakra Mineral have an extremely high current ratio, topping at CR = 247 at 2011 before decreasing to 16.9 in 2014. This can be explained by the fact that PT Cakra Mineral sold much of its assets to cover for transitioning from an agricultural into a mining company. Consequently, its current ratio also normalized to a more appropriate levels in 2014, although it remains very liquid at CR = 16.9. However, its asset turnover is extremely low at less than 4% even after becoming a mining company in 2012-2014, indicating that PT Cakra Mineral is not capable of utilizing its asset to generate sales at all. The company's ROA and ROE is also poor, meaning that the company were not able to generate profits from its assets and equity. In addition, the company's debt ratios is also very low at less than 4%, since PT Cakra Mineral only have a minuscule amount of debt compared to its very large proportion of equity in its capital structure. Combined with very high degree of current ratio, this indicates that PT Cakra Mineral is extremely liquid and likely is not planning to obtain bank loans to balance its capital proportion.

Looking at its profitability ratios, PT Cakra Mineral also performed terribly in the past 5 years, considering that the company did not generate any sales in 2010-2011 and relied instead on other means of revenue generation like giro, bonds and goodwill acquisitions of subsidiaries. In 2014, the company recorded a staggering -920% of net profit margin, although the gross profit margin is only -25%. Looking at its annual report and financial statement, this is caused by the selling of its products at a loss due to sharp falling price of iron ore. However, the main cause of 2014 poor profitability was the Rp 453 billion acquisition goodwill for a cash generating asset, meaning that PT Cakra Mineral was fairly desperate in acquiring that asset. Unfortunately, there are no specific details available regarding this asset acquisition.

Table 3.2 PT Cakra Mineral financial ratios compared to benchmark companies in Indonesia in 2014

2014	ADRO	TINS	PTBA	VALE	Average	CKRA
Current Ratio	1.64	1.87	2.08	2.98	2.14	16.90
Asset Turnover	51.85%	75.58%	88.29%	44.47%	65.05%	2.96%
Debt/equity	96.85%	73.90%	70.83%	30.74%	68.08%	1.64%
Debt/asset	49.20%	42.49%	41.46%	23.51%	39.17%	1.61%
Gross Profit Margin	22.38%	21.68%	30.75%	29.54%	26.09%	-25.65%
Operating Profit Margin	16.22%	13.88%	17.66%	24.03%	17.95%	-920.71%
Net Profit Margin	6.98%	8.65%	15.44%	16.60%	11.92%	-920.71%
Return on Asset	2.78%	6.54%	13.63%	7.24%	7.55%	-25.93%

Cross-sectional approach

In the table presented above, we can see that every single one of PT Cakra Mineral's financial ratios is very different to the financial ratios of other mining companies chosen for benchmarking. PT Cakra Mineral is indeed extremely liquid compared to these companies whose current ratio have an average of 2.14. This indicates that these other companies have a relatively generous amount of current liabilities in comparison with their liquid assets (such as inventories and cash). The average of asset turnover of these companies is 65%, indicating that they are very efficient in utilizing both their current and fixed assets for generating sales. In comparison, PT Cakra Mineral is only able to convert 2.96% of its asset value into sales.

These companies have an average of 68% of debt/equity ratio and 39% of debt/asset ratio, a much more balanced debt-equity proportion capital structure compared than PT Cakra Mineral, whose capital structure is almost entirely made out of equity. PT Adaro Energy, which is the most profitable out of these companies, have an almost 50:50 debt-equity proportion in its capital structure. Combined with an average current ratio of 2.14, this indicates that a healthy amount of debt in capital, provided that it is managed properly, will act as a leverage for the company to finance its operation and boost their profitability. It should be noted however, that debts and leverage is a double-edged sword, and is only beneficial if the company in question is generating profits. The benchmark companies were operating at profits, which in turn gives them the ability to make use of the leverage.

Looking at the profitability ratios, we can see that PT Cakra Mineral performed terribly compared with the benchmark companies. The 2014 asset acquisition that ended in massive goodwill of -Rp 484 billion throws the profitability ratio way off, with -920% of operating and net profit margin. However if we exclude this goodwill account, the profitability margin of PT Cakra Mineral is around -25%. Given time and good management, going back to profitability and emulate the 12% net profit margin average of the benchmark companies should not be impossible to achieve.

Combined approach

Table 3.3 PT Cakra Mineral financial ratios compared to benchmark companies for 2010-2014

	Cakra Mineral		Benchmark average		
	2010	2011	2012	2013	2014
Current Ratio	42.59	247.35	32.03	77.17	16.90
	3.82	3.48	3.46	2.52	2.14
Asset Turnover	0.00%	0.00%	2.02%	3.87%	2.96%
	92.75%	92.25%	78.25%	65.50%	65.05%
Debt/equity	1.03%	0.58%	3.46%	0.75%	1.64%
	56.91%	63.61%	70.69%	74.43%	68.08%
Debt/asset	1.00%	0.58%	3.33%	0.74%	1.61%
	33.37%	35.92%	36.87%	39.46%	39.17%
Gross Profit Margin	0.00%	0.00%	-24.72%	31.94%	-25.65%
	37.15%	37.59%	26.61%	23.35%	26.09%
Operating Profit Margin	0.00%	0.00%	-17.60%	1.49%	-920.71%
	29.43%	28.79%	18.19%	14.51%	17.95%
Net Profit Margin	0.00%	0.00%	-16.14%	0.56%	-920.71%
	20.00%	20.21%	12.05%	9.38%	11.92%
Return on Asset	0.00%	0.00%	-0.29%	0.00%	-25.93%
	16.93%	17.56%	9.95%	7.06%	7.55%
Return on Equity	0.00%	0.00%	-0.34%	0.02%	-27.67%
	24.42%	26.77%	15.97%	11.51%	12.40%

From the table above, we can see that in terms of liquidity, PT Cakra Mineral and the benchmark companies gets less liquid from 2010-2014. This happened because they need additional funds for building smelters and other mining facilities, as evidenced by the rising total liabilities observed from their respective financial reports. The asset turnover also decreases heavily, indicating that utilization of total mining facilities decreases over time. There are two reasons why this happened. First, the global prices of mining commodities falls sharply, and the rising production volume were not able to offset the decreasing revenue. Secondly, the company starts building smelters as mandated by the Mining Act law, but it consumes huge resources and requires a long time before they can be fully operational.

Although there is a steady increase in total liabilities, the total equity also increases due to additional capital from investors, hence the relatively steady debt ratios. The effects of falling mining commodities prices can be clearly seen from the profitability ratios, ROA and ROE. It can be seen that profitability falls quite sharp across the board, resulting in a decrease of ROA and ROE. This confirms that the falling condition of the mining sector not only affects PT Cakra Mineral, but also the benchmark companies, although they can maintain profitability whereas PT Cakra Mineral only recovers slightly on 2013, but falls quite heavily on 2014.

3.2 DuPont Analysis

Table 3.4 2-point ROA breakdown

Year	Earnings available for common stockholders / revenue	Revenue / Total assets	ROA
2012	-14.47%	2.02%	-0.29%
2013	0.05%	3.87%	0.00%
2014	-876.70%	2.96%	25.93%

Table 3.5 2-point ROE breakdown

Year	Earnings available for common stockholders / total assets	Total assets / common stock equity	ROE
2012	-0.33%	103.83%	-0.34%
2013	0.02%	100.75%	0.02%
2014	-27.23%	101.64%	27.67%

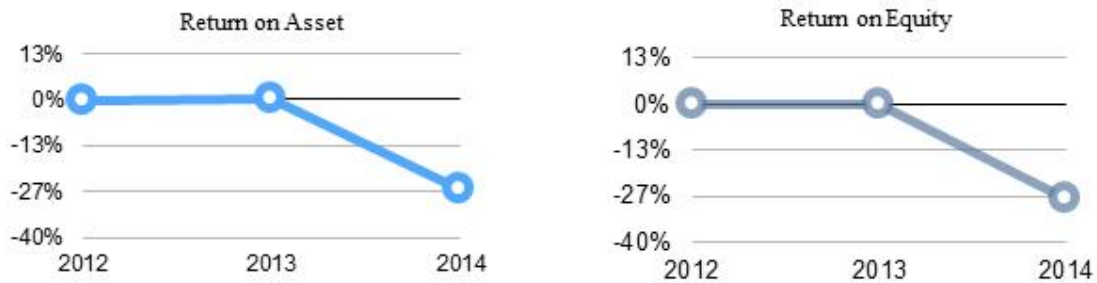


Figure 3.1 PT Cakra Mineral ROA and ROE in 2012-2014

Since PT Cakra Mineral did not generate any sales in the year 2010-2011, the ROA and ROE analysis using DuPont method only works for the year 2012-2014. Using this method, we can break down its ROA and ROE and see which aspects that plays significant roles in the company's operation and profitability.

Table 3.6 3-point ROE breakdown

Year	Net income / sales	Sales / total assets	Total assets / common stock equity	ROE
2012	-16.14%	2.02%	103.83%	-0.34%
2013	0.56%	3.87%	100.75%	0.02%
2014	-920.71%	2.96%	101.64%	27.67%

Table 3.7 5-point ROE breakdown

Year	Operating profit margin	Asset turnover	Interest expense rate	Financial leverage multiplier	Tax retention rate	ROE
2012	-17.60%	2.02%	0.00%	1.0383	91.68%	-0.34%
2013	1.49%	3.87%	0.00%	1.0075	37.34%	0.02%
2014	-920.71%	2.96%	0.00%	1.0164	100.00%	-27.67%

The tables and figure above shows that PT Cakra Mineral performed poorly in regards of ROA and ROE ratios. Almost all of the insight that can be found is already explained in the ratio analysis section. The company practically utilized none of its asset to generate sales at all, and since its capital is mostly comprised from equity, there are no significant difference between the ROA and ROE, hence the financial leverage multiplier rate ≈ 1 . Also, the company did not pay any interest expense from its debts in these years, hence the 0% of interest expense rate. Because PT Cakra Mineral was only profitable in the year 2013, it paid almost no tax expense in the year 2012 and 2014, hence the 91% and 100% tax retention rate. The low 37% tax retention rate in the year 2013 is due to the company paying deferred tax obligation carried over from previous years, since the company did record profit in 2013, although it is very small at only Rp 258 million. By looking at cumulated tax obligation in the financial reports, we can assume that the longer PT Cakra Mineral sustain losses, the larger its tax obligation becomes, and the smaller its net income when the company turned around to become profitable.

3.3 Market multiples valuation

For multiples valuation, the companies that are listed in the IDX, mining sector, minerals mining subsector will be used instead of the 4 benchmark companies used for ratio analysis above. Below are the assessment of EPS, P/E, P/B and P/S ratios for CKRA and others.



Figure 3.2 CKRA EPS compared to industry average

3.3.1 Earnings per share

CKRA is undervalued compared to other minerals mining companies, although it also follows the trend of decreasing EPS in the industry-wide stocks. INCO recorded massive decrease of EPS before recovering in 2014 due to fantastic profitability in the last year. SMRU stays in the negative EPS throughout the last 5 years. ANTM, CITA and DKFT recorded negative EPS in 2014 due to a loss for the first time in 4 years.

3.3.2 Price/earnings ratio



Figure 3.3 CKRA P/E ratio compared to

Table 3.8 EPS of CKRA and minerals mining companies 2010-2014.

	2010	2011	2012	2013	2014
CKRA	-7.77	9.48	-0.70	0.05	-52.53
TINS	127.00	120.29	58.12	78.00	86.00
VALE (INCO)	440.00	340.00	70.00	40.00	211.43
ANTM	176.77	202.44	314.00	43.00	-81.00
CITA	33.00	57.00	68.00	186.00	-114.00
DKFT	-7.44	92.00	55.00	59.82	-8.14
PSAB	0.00	-10.00	180.00	-50.00	40.00
SMRU	-	-18.70	-62.73	-35.40	-6.22
Average	94.58	99.06	85.21	40.18	9.44

Table 3.9 P/E ratio of CKRA and minerals mining companies 2010-2014.

Source: www.gurufocus.com

	2010	2011	2012	2013	2014
CKRA	-	35.32	-	4259.56	-
TINS	14.61	9.40	18.02	13.89	14.01
VALE (INCO)	14.77	9.70	38.75	88.33	17.15
ANTM	108.93	8.00	4.08	23.35	-
CITA	9.61	5.53	5.45	2.09	-
DKFT	-	3.39	7.67	6.35	-
PSAB	-	-	4.20	-	10.80
SMRU	-	-	-	-	-
average	18.49	8.92	9.77	549.20	5.24

Since P/E ratio is not applicable if the company is operating at a loss, it is not useful for analyzing PT Cakra Mineral and the minerals industry, since many of them also operate at a loss in the last five years. PT Cakra Mineral recorded extraordinary P/E ratio in 2013 because its EPS was at 0.05 due to almost zero earnings and 5 billion shares outstanding. As such, both linear and logarithmic graph is used to appropriately describe the abnormal values. Since EPS is a denominator in calculating P/E ratio, it skyrocketed the value to extreme levels. This shows just how peculiar the financial situation of PT Cakra Mineral is.

3.3.3 Price/book ratio

Here we can see that CKRA's P/B ratio have been steadily improving in the last 5 years. 2014 P/B value shows that CKRA fundamental is already appropriate with the industry average. Overall P/B ratio of the industry is decreasing due to the falling share prices across the board, affected by the general falling prices of mining commodities around the world.



Figure 3.4 CKRA P/B ratio compared to industry average

Table 3.10 P/B ratio of CKRA and minerals mining companies 2010-2014.

Source: www.gurufocus.com

	2010	2011	2012	2013
CKRA	0.39	1.18	1.12	0.93
TINS	3.29	1.83	1.70	1.53
VALE (INCO)	2.88	1.8	1.34	1.54
ANTM	0.00	1.43	0.95	0.81
CITA	1.68	1.45	1.03	0.63
DKFT	0.00	1.47	1.68	1.47
PSAB	0.00	4.72	1.52	0.81
SMRU	-	3.11	2.15	2.32
average	1.18	2.12	1.44	1.25

3.3.4 Price/sales ratio



Figure 3.5 CKRA P/S ratio compared to industry average

Table 3.11 P/S ratio of CKRA and minerals mining companies 2010-2014.

Source: www.gurufocus.com

	2010	2011	2012	2013	2014
CKRA	0.00	0.00	52.42	23.73	33.21
TINS	1.66	1.03	1.05	1.38	1.24
VALE (INCO)	5.11	2.56	2.39	2.86	2.79
ANTM	17.00	1.49	1.17	0.92	1.08
CITA	0.54	0.36	0.41	0.32	0.00
DKFT	0.00	1.25	2.76	2.49	0.00
PSAB	0.00	0.76	2.22	2.33	1.02
SMRU	-	17.19	13.87	0.00	9.20
average	4.05	3.52	3.41	1.47	2.19

Here we can see that CKRA P/S ratio is way overvalued above the industry average. This is the result of the very small sales in comparison with its market cap. In addition, we cannot calculate the P/S ratio of CKRA in 2010-2011 due to the zero revenue that was generated by the company in those years. P/S ratio of the industry falls quite heavily over the years, but recovered slightly in 2014.

3.4 Discounted cash flow valuation

3.4.1 Cost of capital calculation

This study assumes that PT Cakra Mineral will not alter its capital structure by obtaining more long-term debt in the next 5 years, thus the constant value of cost of capital in the projected period of 5 years.

Table 3.12 Basic Assumptions

Description	Value	Information
Risk-free rate (R_F)	5.54%	Government bond coupon rate per December 2014
Market risk premium ($r_M - R_F$)	3.30%	Based on <i>Country Default Spread and Risk Premium by Aswath Damodaran, 2014</i> , applied to emerging markets (1.5x multiplier)
Beta coefficient (β)	2.20	CKRA beta 2010-2014 according to Reuters Finance
Pretax cost of debt (r_d)	13.57%	Interest rate of the company's long-term debts in 2014
Corporate tax (T)	25%	Effective corporate tax under law no. 36 year 2008
Proportion of debts (W_d)	1.613%	Total liabilities / (total liabilities + total equity)
Proportion of equity (W_s)	98.387%	Total equity / (total liabilities + total equity)

Cost of equity $r_s = R_F + [\beta \times (r_M - R_F)]$ calculation:

$$= 5.54\% + [2.20 \times 3.30\%]$$

$$= 12.80\%$$

$$r_i = \text{Loan interest rate} \times (1 - T)$$

$$= 13.57\% \times (1 - 25\%)$$

$$= 10.18\%$$

After-tax cost of debt calculation:

$$r_a = (r_i \times w_d) + (r_s \times w_s)$$

$$= (10.18\% \times 1.613\%) + (12.80\% \times 98.387\%)$$

$$= 12.76\%$$

Cost of capital calculation:

3.4.2 Operating profit margin estimation

The mining commodities and the industry itself is highly volatile and unpredictable. CSI Market (2015) provided a wide range of 5-years operating margin values for trailing 12-months of world mining companies, with an upper estimates of 33.39% and lower estimates of -26.91%. This study assumes that PT Cakra Mineral base operating margin will meet the median of these two values (6.33%) in the end of 2019 in a stable rate. The company's 2014 operating margins is -920%, but that was caused mainly by the massive goodwill account. It is unlikely that the company will repeat this extraordinary circumstances. By ignoring this goodwill, we get a -25.65% of operating margin in 2014. This value will be the base margin for year 0. Presented below is the operating margin estimation to be used on three scenarios of valuation:

Table 3.13 Operating profit margin estimation scenarios

Year	Base	Optimistic	Pessimistic
2014	-25.65%		
1	-19.26%	-13.85%	-25.90%
2	-12.87%	-2.05%	-26.15%
3	-6.48%	9.75%	-26.40%
4	-0.09%	21.55%	-26.65%
5	6.33%	33.39%	-26.91%

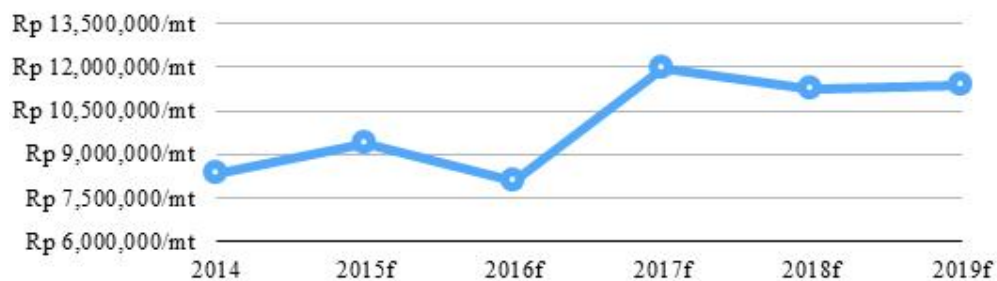


Figure 3.6 Zircon sands price per metric tonne forecast 2015-2019

3.4.3 Revenue Projection

Although data about projected iron ore and zircon sands global prices are already available, by examining PT Cakra Mineral annual report and financial statement it can be seen that the real prices of these commodities sold from the company is significantly lower than global prices due to lower content purity rate. To address this problem, this study assumes that global and local prices fluctuations have a direct correlation, and then calculate the projected local prices in Rupiah from percentages obtained from dissecting the global prices forecast. Production volumes for zircon sands is assumed to grow 10% per year (Credit Suisse, 2014), while iron ore production volume is assumed to grow 3% per year (Infiniti Research Ltd, 2015). The company did not produce much iron ore in 2014 due to export bans, but expects to restore productions in the next year. The revenue projection will use base case price scenario, since CSI market operating margins estimates have taken the upper and lower price of commodities estimates into consideration. Compounded annual growth rate will be calculated from the growth of revenue projection.

Table 3.14 Revenue projection for 2014-2019

Year		2014	1	2	3	4	5
Zircon sands	Production (mt)	2,900	3,190	3,509	3,860	4,246	4,670
	Price/mt (Rp)	8,299,655	9,363,329	8,089,917	11,985,062	11,250,977	11,385,809
	Sales (Rp millions)	24,069	29,869	28,388	46,261	47,770	53,177
Iron ore	Production (mt)	26,116	133,000	136,990	141,100	145,333	149,693
	Price/mt (Rp)	249,769	141,622	146,772	151,922	154,496	159,646
	Sales (Rp millions)	6,523	18,836	20,106	21,436	22,453	23,898
Total Revenue (Rp millions)		30,592	48,705	48,494	67,697	70,224	77,075
CAGR		9.61%					

Table 3.15 PT Cakra Mineral working capital ratio and net investment rate

Revenue	30,592	Revenue	30,592
A. Receivable	13,447	Capital expenditure	569
Inventory	19,565	Depreciation	4,111
A. Payable (less)	9,908	Net investment	-3,542
Total Working capital	42,920	Net investment rate	-11.58%
Working capital per revenue	1.40		

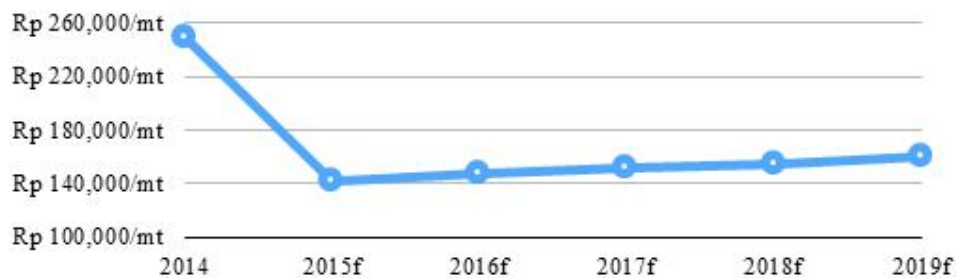


Figure 3.7 Iron ore price per metric tonne forecast 2015-2019

Table 3.16 Free cash flow base projection, in millions IDR

Year	2014	1	2	3	4	5
Revenue	30,592	48,705	48,494	67,697	70,224	77,075
Operating margin		-19.26%	-12.87%	-6.48%	-0.09%	6.33%
EBIT		-9,381	-6,241	-4,387	-63	4,879
(-) Taxes (25%)		0	0	0	0	1,220
Net investment rate	-11.58%	-11.58%	-11.58%	-11.58%	-11.58%	-11.58%
(-) Net Investment		-5,640	-5,616	-7,839	-8,132	-8,925
WC/revenue ratio	1.40	1.20	0.99	0.79	0.59	0.38
Working capital	42,920	58,396	48,250	53,547	41,220	29,289
(-) Δ Working capital		15,476	-10,146	5,297	-12,327	-11,931
Free cash flow		-19,216	9,520	-1,844	20,396	24,516

Company value calculation

Base case scenario

After calculating revenue projection and profitability margin estimates, we can then calculate the projected EBIT of PT Cakra Mineral for the next 5 years. Then, to calculate PT Cakra Mineral's free cash flow (FCF), we need to calculate the projection of taxes, net investments and changes in working capital. This study assumes that PT Cakra Mineral's working capital/sales ratio will recover to industry standard of 0.38 (CSI Market, 2015), and the negative net investment rate will stay constant.

Using the starting working capital/revenue ratio and net investment rate, we can then calculate the projection of free cash flow (FCF) and terminal value (Tv) in the next 5 years.

Using the data obtained, we can then calculate the value of PT Cakra Mineral with the discounted free cash flow and terminal value, with the assumptions that cost of capital obtained from WACC = 12.76% (if profit), 12.81% (if loss, calculated with r_d instead of r_i) and perpetuity growth obtained from CAGR = 9.61%. Next, the fair value of the company will be calculated. The final step is to calculate the fundamental value of the company per share. The calculation is as follows:

Table 3.17 Company value base calculations, in millions IDR

Year	1	2	3	4	5	Terminal	Total
Cost of capital	12.81%	12.81%	12.81%	12.81%	12.76%		
Free cash flow	-19,216	9,520	-1,844	20,396	24,516		
Projected CAGR						9.61%	
Terminal value						853,700	
Discounted cash flow	-17,034	7,480	-1,285	12,593	13,450	468,354	483,559

Table 3.18 Company value per share calculations

Company value	Rp 483,559 million
Short-term debt	9,517
Long-term debt	400
(-) net debt	9,916
Cash and equivalents	1,722
Fair company value	Rp 475,364 million
Number of shares	5,106,021,090
Fundamental value per share	Rp 93.10

Optimistic scenario valuation

Free cash flow calculation:

Table 3.19 PT Cakra Mineral optimistic projected free cash flow for 5 years, in million IDR

Year	2014	1	2	3	4	5
Revenue	30,592	48,705	48,494	67,697	70,224	77,075
Operating margin	-25.65%	-13.85%	-2.05%	9.75%	21.55%	33.39%
EBIT	-7,847	-6,746	-994	6,600	15,133	25,735
- Taxes (25%)		0	0	1,650	3,783	6,434
Net investment rate	-11.58%	-11.58%	-11.58%	-11.58%	-11.58%	-11.58%
- Net Investment		-5,640	-5,616	-7,839	-8,132	-8,925
WC/revenue ratio	1.40	1.20	0.99	0.79	0.59	0.38
Working capital	42,920	58,396	48,250	53,547	41,220	29,289
- Δ Working capital		15,476	-10,146	5,297	-12,327	-11,931
Free cash flow		-16,581	14,767	7,493	31,809	40,158

Table 3.20 Company value optimistic calculations, in millions IDR

Year	2014	1	2	3	4	5
Revenue	30,592	48,705	48,494	67,697	70,224	77,075
Operating margin	-25.65%	-25.90%	-26.15%	-26.40%	-26.65%	-26.91%
EBIT	-7,847	-12,615	-12,681	-17,872	-18,715	-20,741
- Taxes (25%)		0	0	0	0	0
Net investment rate	-11.58%	-11.58%	-11.58%	-11.58%	-11.58%	-11.58%
- Net Investment		-5,640	-5,616	-7,839	-8,132	-8,925
WC/revenue ratio	1.40	1.40	1.20	0.99	0.79	0.38
Working capital	42,920	68,187	57,999	67,156	55,336	29,289
- Δ Working capital		25,266	-10,188	9,157	-11,819	-26,048
Free cash flow		-32,241	3,123	-19,190	1,237	14,232

Table 3.21 Company value per share calculations

Company value	Rp 810,983 million
Short-term debt	9,517
Long-term debt	400
(-) Net debt	9,916
Cash and equivalents	1,722
Fair company value	Rp 802,789 million
Number of shares	5,106,021,090
Fundamental value per share	Rp 157.22

Table 3.22 PT Cakra Mineral pessimistic projected free cash flow for 5 years, in million IDR

Year	1	2	3	4	5	Terminal	Total
Cost of capital	12.81%	12.81%	12.76%	12.76%	12.76%		
Free cash flow	-16,581	14,767	7,493	31,809	40,158		
Projected CAGR						9.61%	
Terminal value						1,398,405	
Discounted cash flow	-14,698	11,603	5,219	19,639	22,031	767,189	810,983

3.4.4.3 Pessimistic scenario valuation

Table 3.23 Company value pessimistic calculations, in millions IDR

Year	1	2	3	4	5	Terminal	Total
Cost of capital	12.81%	12.81%	12.81%	12.81%	12.81%		
Free cash flow	-32,241	3,123	-19,190	1,237	14,232		
Projected CAGR						9.61%	
Terminal value						495,600	
Discounted cash flow	-28,579	2,454	-13,366	763	7,808	271,894	240,974

Table 3.24 Company value per share calculations

Company value	Rp 240,974 million
Short-term debt	9,517
Long-term debt	400
(-) Net debt	9,916
Cash and equivalents	1,722
Fair company value	Rp 232,780 million
Number of shares	5,106,021,090
Fundamental value per share	Rp 45.59

Table 5.1 Findings from data analysis

Financial Performance		Valuation	
Current Ratio	Excessive	Market Multiples	Inconclusive
Asset Turnover	Poor	DCF Base case	Overvalued
Debt Ratios	Appropriate	DCF Optimistic	Overvalued
Profitability	Poor	DCF Pessimistic	Overvalued
ROA & ROE	Poor		

Conclusion and Recommendation

Conclusion

Judging from the ratio analysis, we can conclude that PT Cakra Mineral performed terribly compared to other mining companies in Indonesia. The company's massive goodwill account from cash-generating asset acquisition, combined with export bans and falling prices of commodities, have plummeted the company's profitability in 2014. DuPont analysis reveals that the company barely generated any revenue at all from its assets, implying that its mining facilities are severely underutilized. The analysis proved to be appropriate, since the company expected to produce 40,000 mt of zircon sands in 2014, but the realized production volume is However, with zircon sand price estimated to rise in the foreseeable future, it is possible for the company to turn itself around if it can manage to maximize its operation efficiency.

Moving on to stock valuation, market multiples method turned out to be inconclusive, due to unique financial circumstances surrounding PT Cakra Mineral. CKRA share price is undervalued in EPS, appropriate in P/B, and very overvalued in P/S. P/E ratio turned out to be not applicable since the company recorded ≈ 0 earnings in 2013, pushing its P/E ratio to extreme levels. It is worth bearing in mind that many other minerals mining companies shares cannot be valued using P/E ratio, since many of them is operating at a loss, rendering P/E ratio to negative values and thus not applicable.

Discounted cash flow method provides a more in-depth look of the company's values since it takes future expected performance and present values into consideration. True to the volatility in the mining industry, the three scenarios produced quite different results, although PT Cakra Mineral is overvalued in all three scenarios. However, if the market turned out to be favorable, it possible for the company to overturn its profits as soon as 2017. Conversely, it is possible for the company to remain operating at a loss for the next 5 years if the market turned out to being unfavorable.

Recommendation

Recommendation for PT Cakra Mineral:

- Focus more on the zircon sands mining, and avoid any other mining commodities with high price volatility and uncertain market prospects.
- Improve efficiency of underutilized mining facilities to maximize economies of scale.
- Acquire more debts, when and only if profitability reached positive amounts to balance capital structure and increase leverage.

- Issue more shares, since a condition of overvalued stock is the best time to issue more shares and gain more capital.
- Enforce strict accounting and financing practices to avoid suspension in the future.

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