



The Financial Performance and Stock Valuation of Coal Mining Company in Indonesia (Case Study: Pt. Abm Investama Tbk (ABMM))

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ABSTRACT: Indonesia, the world's largest supplier of coal, may profit from the uncertainties surrounding the present geopolitical situation. According to experts, the current high price of coal could be stable through the end of 2022, before declining moderately in 2023, but remain well above its five-year average. Therefore, investing in coal companies' stock right now is a good idea. Theoretically, investing in the stocks of any firm whose primary business is in the coal industry will result in a profit. The issue is deciding which stock to purchase to increase the portfolio's return. Value investing, often known as finding an undervalued firm with a great potential for growth, is the main goal of the research. The first step of this study is to observe the coal mining sector, and analyze the problem that occurs. Then, a simple screening valuation method using PBV and PER is conducted to choose the appropriate company to evaluate. Next, external factor analysis using PESTEL analysis and Porter's Five Forces analysis is conducted. Afterward, internal factor analysis using Financial Ratios and F-Score is conducted to evaluate the problem that lies within the company. Finally, to summarize, SWOT analysis is conducted to analyze the advantages and disadvantages of the company's business environment that provide a thorough knowledge of the company's competitive advantages. Furthermore, an absolute valuation method is carried out to produce the company's intrinsic value. The financial performance of ABMM when viewed from its financial statement from 2017 – 2021 is strongly increased in 2021, but stagnant in 2017 – 2020. After obtaining the valuations result through three absolute valuation method, the normalized earnings valuation shows an upside of IDR 2,317 or 77%, the DCF valuation shows an upside of IDR 2,193 or 73%, and lastly, the Monte Carlo Simulation shows an upside of IDR 2,233 or 74%. Therefore, from all three method, ABMM current stock price is considered as undervalued. According on the findings, this study advises purchasing ABMM shares. The present stock price was found to be undervalued using three absolute valuation methods, which means that anyone who purchases the stock at the current price of IDR 3,000 will see a capital gain on their investment.

KEYWORDS: Absolute Valuation, Intrinsic Value, Stock Valuation, Value Investing.

I. INTRODUCTION

A. Background

Global economic prospects have worsened significantly since the expert forecasted in January. Earlier this year, experts projected the global economic recovery to strengthen from the second quarter of this year after the short-lived impact of the Omicron Coronavirus (COVID-19) variant. Since then, the forecast for a global economic recovery has gotten worse, mainly due to Russia's invasion of Ukraine, which sparked a humanitarian catastrophe in Eastern Europe, and the imposition of sanctions meant to put pressure on Russia to halt hostilities. The world economy was beginning to recover from the COVID-19 epidemic and was on the route to recovery when this catastrophe began to take shape. However, beyond the immediate effects on humanitarian, the conflict will significantly slow down the world's economic recovery, decreasing GDP and pushing inflation even higher.

Both Russia and Ukraine are vital exporters of energy and agricultural products. Especially, Russia is the primary energy exporter to The European Union (EU), with around 40 percent of its crude oil and natural gas. A third of Russia's coal exports, including non-EU nations, went to Europe, while 10 percent went to Japan. Furthermore, the EU's primary energy imports are from Russia, including natural gas (35 percent), crude oil (20 percent), and coal (40 percent). As a result of the invasion, Russia has been subject to several sanctions. Although energy was not included in the initial sanctions, some nations later forbade or announced a gradual end to imports of Russian energy items such as natural gas, crude oil, and coal.



Following the import bans on Russia’s energy supplies, the EU nations are more likely to seek a supply substitute from Indonesia or Australia. It is reflected in the data shown by Badan Pusat Statistik (BPS) on coal export to the EU in the second quarter of 2022 have reached US\$ 191.2 million, increased by 143.72 percent year-on-year compared to last year’s figure of US\$ 78.4 million. Indonesia’s primary coal export destinations are Italy, with US\$ 111.7 million, The Netherlands, with US\$ 79.2 million; Poland, with 43.2 million; and Switzerland, with US\$ 15.5 million. Furthermore, according to The Ministry of Energy and Mineral Resources (ESDM), Germany has officially submitted 150 million tons of coal import this year to meet 50 percent of its coal demand. Following Germany’s demand request, the ESDM Ministry plans to raise the coal output target in the 2022 Work Plan and Budget (RKAB) of Mining Business Permits (IUP) holders, which the target before was 663 Mt.

With the uncertainty of the geopolitical issue that is currently happening, Indonesia as the largest coal exporter in the world could be benefitted from it. According to experts, the current high price of coal could be stable through the end of 2022, before declining moderately in 2023, but remain well above its five-year average. Therefore, investing in coal companies’ stock right now is a good idea. Theoretically, buying any company’s stocks that its business is in the coal business will give a positive return because the coal price reflects coal company performance. The problem lies within which stock to buy to maximize return in the portfolio. The research’s primary focus is to find an under-valued company with a high potential to grow, commonly known as value investing.

B. Company Profile

There are more than 20 publicly listed coal companies in Indonesia. Three of which are listed in the LQ45 index (45 companies that are most liquid and have the most significant market capitalization on the Indonesia Stock Exchange), namely, PT. Adaro Energy Indonesia Tbk. (ADRO), PT. Bukit Asam Tbk. (PTBA), and PT. Indo Tambangraya Megah (ITMG). Though considering investing in these companies is good, if the perspective is on how liquid and large these companies. Suppose it looks from a different perspective, specifically from its intrinsic value. In that case, these company is considered over-valued compared to their competitors, which means that it is too expensive compared to their performance. The simplest way to consider a company’s intrinsic value is through Price to Earning Ratio (PER) and Price to Book Value (PBV). For this research, not all of the coal-business listed companies are included. This is because this research limited the Market Capitalization to above Rp 5 Trillion to reduce the risk of choosing a high volatility price stock. Table I.1 below lists the PER and PBV values of coal-business listed companies in Indonesia.

Table 1. 2022 Trailing Twelve Months (TTM) Coal-Business PER&PBV value

No	Name	Closing Price Q1 2022	Market Cap. (Million)	P/E Ratio	P/BV Ratio
1	BYAN	Rp 68,100	Rp 226,583,097	10.80	3.37
2	ADRO	Rp 3,350	Rp 101,720,797	5.72	1.17
3	PTBA	Rp 4,280	Rp 48,475,983	4.94	1.29
4	ITMG	Rp 40,750	Rp 44,999,064	4.65	1.25
5	GEMS	Rp 6,775	Rp 39,117,627	7.01	9.99
6	HRUM	Rp 1,945	Rp 24,342,671	2.80	3.86
7	INDY	Rp 2,720	Rp 13,735,102	7.73	0.71
8	BUMI	Rp 143	Rp 10,621,289	3.25	-0.70
9	BSSR	Rp 4,000	Rp 10,466,000	3.20	2.85
10	MBAP	Rp 8,175	Rp 10,032,948	5.17	1.49
11	ABMM	Rp 2,650	Rp 7,295,887	3.19	0.76
12	TOBA	Rp 870	Rp 7,003,469	8.45	2.09
Average				5.57	2.35

From Table I.1 above, the P/E ratio of some of the major players, namely BYAN, ADRO, and INDY, are well above the industry average, which indicates that their current stock price is over-valued. From the P/BV Ratio perspective, the major player is only BYAN, that is exceeded the industry average, while INDY is the lowest value amongst all the companies with 0.71. However, INDY P/E Ratio value is well beyond its industry average at 7.73. For this research, the company that falls into the category is a



company with a low P/E Ratio and low P/BV Ratio. Therefore, the company that is chosen for this research is PT. ABM Investama Tbk (ABMM).

PT. ABM Investama Tbk. was established in 2006 under the name of PT Adiratna Bani Makmur. In 2009, the company changed its name to its current name after the completion of the acquisition process by TMT Group. On December 6th, 2011, the company took corporate action to become a public company through an initial public offering (IPO) of shares on the Indonesia Stock Exchange and listed 2,75,165,000 of its shares on the IDX under the stock code of "ABMM." ABMM is an investment company with an integrated mining solution that manages the entire mining value chain through its subsidiaries. The company operates in 3 main business segments: mining contractors and coal mining, services, and manufacturing. In addition, the company also runs a fuel and lubricants trading business included as "other" business categories.

II. BUSINESS ISSUE EXPLORATION

A. Literature Review

External factor analysis, also known as environmental analysis, is the method organizations use to unbiasedly evaluate changes in their sector and the larger world that may impact their existing company operations. By doing this, businesses ensure they can adapt to changes and remain successful in their field. Some benefits of using an environmental analysis are forecasting the future, identifying threats and allowing them to develop a strategy for a response, helping achieve business objectives, forming effective strategies and marketing programs for a business, and improving organizational performance. There are many methods for a company to assess its current business environment. For this research, the methods used are PESTEL Analysis and Porter's Five Forces Analysis.

According to (Cadle et al., 2010: 3-5), PESTLE analysis provides a framework for investigating and analyzing the external environment of an organization. The framework identifies six key areas that should be considered when attempting to identify the sources of change. According to (Johnson et al., 2009) Porter's five forces framework was initially developed to assess the attractiveness (profit potential) of different industries. The five forces constitute an industry's 'structure.' Although initially developed with businesses in mind, industry structure analysis with the five forces framework is of value to most organizations. It can provide a useful starting point for strategic analysis even where profit criteria may not apply: in most parts of the public sector, each of the five forces has its equivalents. As well as assessing the attractiveness of an industry or sector, the five forces can help set an agenda for action on the various 'pinch-points' identified.

The easiest way to judge companies' quality is to assess their financial performance. The assessment varies according to the scope of the business it runs. (Hartono, 2018) stated that the company's performance assessed from the financial statements will reflect the company's fundamental position as the basis for investment decisions. According to (Eke, 2018), Financial performance refers to a business or organization's success in meeting all its financial objectives, such as maximizing profits, increasing revenue, increasing earnings per share, and growing liquidity. The working operations of the business produced the financial results, which were then displayed in financial numbers. The financial performance from the previous period, the budget balance sheet and profit and loss, and the average financial performance of comparable organizations in the same industry must all be compared to the activities' results in order to obtain a more accurate perspective. One method that can be used to compare one financial performance to the other is using Financial Ratios. According to (Zitman and Gutter, 2015: 115-117) The information contained in the four basic financial statements is of major significance to a variety of interested parties who regularly need to have relative measures of the company's performance. Relative is the key word here, because the analysis of financial statements is based on the use of ratios or relative values. Ratio analysis uses techniques for computing and evaluating financial ratios to assess and track the performance of the company. The basic inputs to ratio analysis are the firm's income statement and balance sheet. Financial ratios can be divided for convenience into five general categories: liquidity, activity, debt, profitability, and market ratios. Calculating a certain ratio is only one aspect of ratio analysis. The way the ratio value is interpreted is more crucial. To determine if the number is sufficient, a valid foundation for comparison must be used. Both cross-sectional and time-series ratio comparisons can be made. The most informative approach to ratio analysis combines cross-sectional and time-series analyses. A combined view makes it possible to assess the trend in the behavior of the ratio in relation to the trend for peer companies or the industry. Therefore, this research will use the combined view analysis to compare the company.



After identifying the external factor using PESTEL analysis and Porter's Five Forces analysis, and the internal factor using financial ratios, SWOT analysis is used to summarize and consolidate the key issues. Below explains regarding the description of each letter according to (Cadle et al., 2010: 15). Strength: The internal positive capabilities of the organization, for example, financial resources, motivated staff, or good market reputation. Weakness: The internal negative aspects of the organization that will diminish the chances of success, for example, out-of-date equipment and systems, unskilled staff, or poor management information. Opportunity: The external factors that present opportunities for success, for example, social changes that increase demand for the organization's services, or the development of technology to provide new service delivery channels Threat: The external factors that have the potential to harm the organization, for example a technological development that could enable new competitors to enter the market, or economic difficulties leading to a reduction in market demand.

According to (Zitman and Gutter, 2015: 329-337), Common investors anticipate receiving a reward in the form of regular cash dividends and rising share value. Some of these investors select the companies they want to purchase and sell with the goal of maintaining a well-diversified portfolio in mind. Other investors have a more speculative motive for trading. They try to spot companies whose shares are undervalued, meaning that the actual value of the shares is greater than the current market price. These investors buy shares that they believe to be undervalued and sell shares that they think are overvalued (that is, the market price is greater than the actual value). There are two types of valuation, namely, absolute valuation and relative valuation. The most commonly used type of absolute valuation is the dividend growth model. Inside the dividend growth model, there are three types of growth: zero growth model with the assumptions of constant, non-growing dividend stream. The constant growth model assumes that the dividend will grow at a constant rate but at a rate that is less than the required return. Then the last one is variable-growth model with the assumption of the dividend growth rate will shift by the end of the year. Another commonly used type of absolute valuation is free cash flow (FCF) or discounted cash flow (DCF) valuation. This type of valuation is preferred if the company being valued has no historical dividend, or the current dividend historical data is insufficient. The same fundamental idea that underlies dividend valuation models also supports the free cash flow valuation model: the value of a share of common stock is equal to the present value of all future cash flows that it is anticipated to generate over an indefinite time horizon. However, in the free cash flow valuation model, instead of valuing the firm's expected dividends, we value the firm's expected free cash flows, which represents the amount of cash flow available to investors, debt provider (creditors), and equity (owners) after all other obligations have been met. The free cash flow valuation methodology calculates the present value of the anticipated free cash flows discounted at the weighted average cost of capital, which is the anticipated average future cost of funds, to determine the value of the entire business.

B. Conceptual Framework

In this study, the conceptual framework is a framework that methodically defines the ideas, presumptions, expectations, and theories that underpin and illuminate the connections among them. The conceptual framework enables the author to describe the study's variables. The essential variables, concepts, and components in this research will be discussed in many formats, including graphs, tables, and explanations based on theories and facts. The first step of this study is to observe the commodity market, especially the coal mining sector, and analyze the problem that occurs in the sector. Then, a simple screening valuation method using PBV and PER with the most recent quarter (Q1 2022) data is conducted to choose the appropriate company to evaluate. Next, external factor analysis using PESTEL analysis and Porter's Five Forces analysis is conducted to understand what problem lies within the industry. Afterward, internal factor analysis using Financial Ratios and F-Score is conducted to evaluate the problem that lies within the company. Finally, to summarize, SWOT analysis is conducted to analyze the advantages and disadvantages of the company's business environment that provide a thorough knowledge of the company's competitive advantages over other businesses in the same industry. Furthermore, an absolute valuation method is carried out to produce the company's intrinsic value. This process is done by calculating the value per share through normalized earnings, discounted cash flow, and simulations. Finally, conclusions and recommendations can be made from the calculation that has been done. Figure II.3 below depicts the conceptual framework.

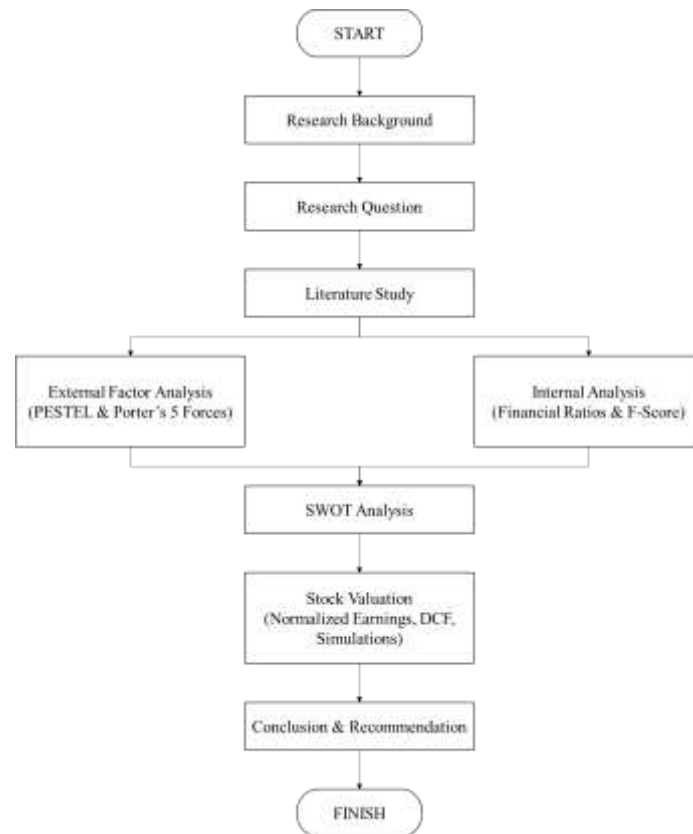


Figure 1. Conceptual Framework

C. External Analysis

1) PESTEL Analysis

- Political

The international political atmosphere is tense, owing mostly to the ongoing conflict between Russia and Ukraine. The uncertainty about when the war will end is the main problem. Russia, the major Europe Union (EU) energy supplier (mainly natural gas and coal), is cutting its supply stream responding to the EU’s sanctions. As a result, the EU is scattered to find a new energy supplier. Many of them are also reviving their coal-fired power plants to cut down gas consumption. The direct impact of the conflict is reflected by the energy commodity price that rises to an all-time high. This could be an opportunity for Indonesia as the largest coal exporter in the world. Especially when winter is coming in the EU, electricity consumption will rise due to the cold weather. According to APBI (Asosiasi Pertambangan Batubara Indonesia) data on September 2022, coal export to the EU was recorded at US\$ 161.69 million, an increase of 68.05% from the previous month which amounted to US\$ 96.21 million. Responding to the international crisis, there is an impact on domestic market obligation (DMO) policy. In early 2021, Perusahaan Listrik Negara (PLN) experienced a shortage. The peak of the shortage occurred at the beginning of this year (2022) when the government finally issued a policy banning coal exports. The shortage is mainly due to the extreme disparity between the international coal index and DMO prices. When international coal prices hit around US\$ 200 – US\$ 250 per MT, DMO policy requires coal companies to sell at US\$ 70 per MT. In mid-2022, the government and the House of Representatives of the Republic of Indonesia (DPR) agreed to form BLU (Badan Layanan Umum) for DMO practitioners to tackle the extreme disparity price problem. The Coal BLU is a government unit that will later be tasked with managing the contribution funds collected from all coal mining companies. The contribution funds are then used to maintain PLN security of supply coal (CNBC Indonesia).

- Economics

According to BPS data (No. 60/08/Th. XXV, August 5th, 2022), Indonesia’s economy based on Gross Domestic Product (GDP) at current prices in the second quarter of 2022 reached Rp 4,919 trillion and at constant prices (2010) reached Rp 2,923 trillion. In the



second quarter of 2022, Indonesia's economy grew by 5.44 percent compared to the second quarter of 2021 (y-on-y). Meanwhile, Indonesia's economy grew 3.72 percent compared to the previous quarter (q-to-q). Lastly, Indonesia's economy grew by 5.23 percent compared to the first semester of 2021 (c-to-c). From the year-on-year (y-on-y) growth perspective production side, all industries experienced positive growth. The most significant growth is in Transportation and Storage by 21.27 percent, followed by Accommodation and Food Service Activities by 9.76 percent. Meanwhile, on the expenditure side, almost all expenditure components experienced positive growth. The only component contracted is the General Government Final Consumption Expenditure (GGFCE) by 5.24 percent. Meanwhile, the highest growth was experienced by the Export of Goods and Services component, which grew by 19.74 percent, followed by Household Final Consumption Expenditure (HFCE) by 5.51 percent. From the quarter-to-quarter (q-to-q) growth perspective production side, almost all industries experienced positive growth. The only industry contracted is the Construction industry by 6.05 percent. Meanwhile, the highest growth was experienced by Agriculture, Forestry, and Fishing industry, which grew by 13.15 percent, followed by Public Administration and Defence, Compulsory Social Security by 9.28 percent. On the expenditure side, growth occurred in almost all Expenditure Components except for the Gross Fixed Capital Formation (GFCF) component, which contracted by 3.66 percent. On the other hand, The highest growth occurred in the General Government Final Consumption Expenditure (GGFCE) component at 32.00 percent, followed by the Export of Goods and Services component by 9.14 percent. From the semester-to-semester (c-to-c) growth perspective production side, almost all industries experienced positive growth. Public Administration and Defence; Compulsory Social Security and Education had a contraction by 1.60 percent and 1.42 percent, respectively. Meanwhile, the highest growth was experienced by Transportation and Storage at 18.56 percent, followed by Other Services Activities at 8.75 percent. On the expenditure side, growth occurred in almost all expenditure components except for the GGFCE component, which contracted by 6.27 percent. The highest growth occurred in the Export of Goods and Services component, which grew by 18.26 percent, followed by NPISHs FCE component by 5.43 percent. According to (CNBC Indonesia), on September 2022, Indonesia's inflation rate was recorded at 5,95 percent (y-on-y), an increase from the last month of August 2022 at 4,96 percent. This increase is caused mainly by subsidized fuel oil price adjustments. Therefore, to minimize the rise in the inflation rate, the Central Bank of Indonesia (BI) increase the BI 7-Day Reverse Repo Rate (BI7DRR) by 50 basis points to 4,25 percent.

- Social

Indonesia is the fourth largest country by population in the world. Annually, Indonesia's population growth rate is at a stable rate between 1 to 1,4 percent. According to BPS interim population projection in 2022, Indonesia's total population is 275,8 million, an increase of 1.1 percent from 2021, which was 272,7 million. BPS also states that in 2045, Indonesia's population will reach 319 million with a dependency ratio of 53 percent. Population growth rate must be balanced with equitable development. In the modern era, such as industry 4.0 and society 5.0, the government needs to support the development with the most basic needs, such as electricity. As of now, 65 percent of power plants are coal-fired. Therefore, all related parties, such as the government, PLN, and coal companies, must collaborate to support equitable national development.

- Technology

Fourth Industrial Revolution, commonly known as Industry 4.0, is the new goal for all industries, including the mining sector. This industrial revolution is highly influenced by utilizing the digital world of information and technology, such as Internet of Things (IoT), advanced analytics, machine learning, and automation in an effort to boost production and adjust to quickly shifting consumer demand. In Indonesia, state-owned mining companies consisting of PT Aneka Tambang Tbk, PT Bukit Asam Tbk, PT Freeport Indonesia, PT Inalum, and PT Timah Tbk collaborate to create a holding company called MIND ID or Mining Industry Indonesia. This holding company is committed to build an innovative and sustainable mining ecosystem through digitalization. They also have three main goals: to increase productivity, lower cost, and reduce risks. MIND ID has implemented the first 5G Smart-Mining in Southeast Asia that support automation and remote control to improve work safety and mining productivity at PT Freeport Indonesia. In addition, they have developed a digital application called "MASTERMINE". This digitally integrated system can increase the effectiveness of mine waste management.

- Legal

All business activities in Indonesia cannot be separated from the laws and regulations that apply in Indonesia. The following are some of the laws, and regulations that apply to businesses in the mining sector, especially coal mining: UU No. 3/2020 as for change to the law of UU No. 4/2009 as for Mineral and Coal Mining, PP No. 96/2021 as for Implementation of Mineral and Coal Mining



Activities, PM ESDM No. 7/2014 as for Implementation of Reclamation and Post-Mining in Mineral and Coal Mining Business, Activities, PM ESDM No. 34/2009 as for Prioritizing the Supply of Mineral and Coal Needs for Domestic Interest, Etc.

- Environmental

On September 2022, Indonesian president has officially banned the construction of a coal-based Steam Power Plant (PLTU) and has also requested the acceleration of the termination or retirement of the PLTU that is still operating. This ban is listed in Presidential Decree No. 112/2022 about Acceleration of Renewable Energy Development for Electricity Supply. The presidential decree was made to support the commitment to achieve the Nationally Determined Contribution (NDC) targets by 2030. NDC target was Greenhouse Gas (GHG) emission reduction, which is 29% unconditional (with own efforts) and 41% conditional (with adequate international support) by 2030. The decree was also an effort to accelerate the Renewable Energy mix of 23% by 2025, and 31% by 2050. However, the International Renewable Energy Agency (IRENA) thinks that Indonesia might meet its 2050 objective two decades early. Despite the law on construction ban and early termination of coal-based power plant already set, business opportunity regarding coal mining is still open. Because the presidential decree valid from September of 2022, while the Ministry of Energy and Mineral Resource (ESDM) already set the RUPTL (Rencana Usaha Penyediaan Tenaga Listrik) for 2021-2030 which listed on Ministerial Decision No.188.K/HK.02/MEM.L/2021. This means that the RUPTL for 2021-2030 period is still be in effect. According to (CNBC Indonesia), There are at least 13,819 Mega Watts (MW) or nearly 14 Giga Watts (GW) of electricity from coal-fired power plants that can still be built during 2021-2030 period. This amount is based on the 2021-2030 RUPTL. The number of PLTU in the 2021-2030 RUPTL reaches 34% of the total power plants to be built until 2030 of 40.6 GW. Therefore, despite the transition to renewable energy, coal will continue to develop in Indonesia, but at a considerably slower rate. Coal consumption will level out by 2030 and then decline due to the increased use of renewables. However, in the short run, the oil industry will be the most affected. If Indonesia wants to continue on its present renewable energy path, shifting to cleaner energy sources is a significant step in the right direction. To tackle the task of averting climate change, Indonesia must rise to the occasion.

2) Porter's 5 Forces Analysis

- Threat of New Entrants – Low

The Threat of New Entrants in coal industry is relatively low. Below is the explanation regarding the barrier to entry to the coal industry.

- To operate a functioning and profitable coal mining, a significant initial capital is require.
- Coal industry is of the industry with strict regulations. Therefore, not everyone can enter coal mining business.
- In Indonesia, there is three commonly known coal specification. Low calorie, Medium calorie, and High calorie. Coal industry in Indonesia commonly produce low to medium calorie. Therefore, any new entrants will produce similar kind of coal specification.

- Bargaining Power of Buyers – Medium

The Bargaining Power of Buyers in coal industry or other commodities industry are strongly influences by the supply and demand conditions. Current conditions in the coal industry is the bargaining power of buyers is medium because although the current demand is higher than the supply, there also a huge number coal producer in Indonesia. Therefore, consumers still have a bargain power to get cheaper coal suppliers.

- Threat of Substitute Products or Services – Medium

There is a number of factors that threatening the coal industry products. The factors are explained below.

- The Indonesian government is currently pushing to utilize an eco friendly or renewable energy sources. It is reflected by the Presidential Decree No. 112/2022 about Acceleration of Renewable Energy Development for Electricity Supply. this Presidential Decree was made to ban the construction of a new coal-based power plant and accelerate the retirement of currently operating coal-based power plants.
- As one of the largest Indonesian coal importers, China is currently pursuing renewable energy sources, such as solar energy. It is reflected by China's current solar capacity, which is the highest in the world.
- Despite the urge to switch to a renewable energy source, coal is still the cheapest option. In Indonesia, coal is still the largest share of the energy sources, around 65%. Therefore, switching to renewable energy sources could not be done in a short time. Many industries also rely on coal as their primary energy source, one of which is the steel industry.



• Bargaining Power of Suppliers – Low

The bargaining power of suppliers, especially in ABMM is relatively low. ABMM is an investment company with an integrated mining solution that manages the entire mining value chain through its subsidiaries. ABMM integrated mining solution starts from coal mining, mining contractors, transportation, shipping, and trading. Therefore, the bargaining power of suppliers is relatively low because the suppliers are its subsidiaries.

• Rivalry Among Existing Companies – High

The rivalry among existing companies in the coal industry is classified as medium to high. Although there is a relatively low threat from new entries, the Indonesian coal market share is held by several major players, such as PT Bumi Resources, Sinarmas Group, PT Adaro Energy, and PT BAYAN Resources. Furthermore, the competition to develop and utilize a new mine is intense because resources are limited and unrenewable, along with the surge of demand for energy, domestic and international.

D. Internal Analysis

1) *Company's Financial Overview*

According to Investopedia, financial statements are written records in which there is an explanation of the activities and financial performance of a company. Usually, financial statements consist of five different segment, income statement, balance sheet, cash flow statements, note to the financial statements, and statement of change in equity. Figure 2 and Figure 3 below summarize ABMM's financial performance from 2018 – 2021 and the average sales segment respectively.

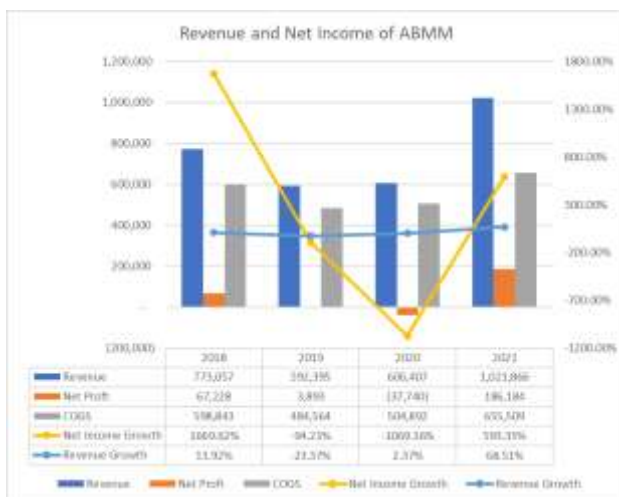


Figure 2. ABMM's Revenue and Net Income Performance

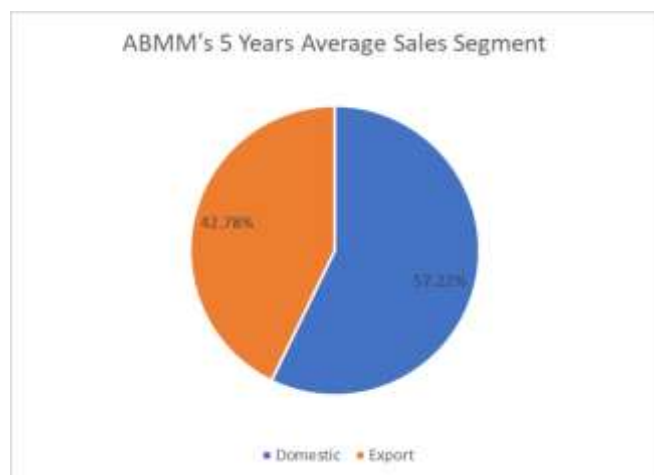


Figure 3. Average Sales Segment

Figure 2 shows that ABMM's net income in the 2018 – 2021 period experiencing instability. The revenue on the other hand, remain stable and on the rising trend. The COGS showing an increase and decrease on a parallel with the revenue. However, the increase and decrease on the COGS is not significant as the revenue. It shows that the ABMM management is improving their cost efficiency every year. Figure 3 shows that on average, more than half of ABMM's revenue stream comes from domestic market while around 40 percent are comes from export, mostly China. The Acceleration of Renewable Energy Development for Electricity Supply could jeopardize ABMM long-term performance, however, on the short to medium term the Acceleration of Renewable Energy are not impacting too much because The Ministry of ESDM already set the RUPTL for 2021 – 2030 period. The RUPTL set around 14 Giga Watt of coal-based power plant or around 34% of the total power plants to be built until 2030 of 40.6 GW. Additionally, many industries in Indonesia still depends on coal, such as steel industry, cement industry, and nickel smelters. According to S&P Global, Coal demand from the domestic cement sector was projected at around 16 million mt and around 35 million mt from smelters in 2023.

2) *Financial Ratios*

Financial Ratios are often used to determine a company's overall financial performance. To analyze the financial performance of ABMM, this research uses five types of financial ratios, profitability ratio, liquidity ratio, activity ratio, solvency ratio, and market ratio. The benchmark companies used in this research are PT Baramulti Suksessarana Tbk (BSSR), PT Bumi Resources Tbk



(BUMI), PT Mitrabara Adiperdana Tbk (MBAP), and PT TBS Energi Utama Tbk (TOBA). In addition, previously mentioned companies are chosen because they have roughly the same market capitalization size. Furthermore, The data used for this research is the annual financial report from 2017 to 2021.

a) Profitability Ratio



Figure 4. Gross Profit Margin & Operating Profit Margin

Figure 4 shows that in 2021 all companies experienced an increase in GPM from the previous period, with MBAP recording the highest GPM amongst other companies. On the other hand, ABMM ranks third among other companies. However, ABMM experienced the highest increase, more than double from the previous period. This shows the management’s commitment to utilizing the high coal price. If observed from a five-year average, MBAP is the most efficient company among others. In contrast, ABMM is ranked fourth, just behind BUMI. However, in 2017, BUMI recorded a 100% Gross Profit Margin, increasing the five-year average. Although it was previously said that a high GPM shows better efficiency, this number is a different case. BUMI revenue did not come from an operational activity but from a management fee from its subsidiaries (PT Bumi Resources Mineral Tbk). Therefore, in this case, ABMM has a better efficiency than BUMI. Figure 4 also shows that in 2021 all companies experienced an increase in OPM from the previous period, with MBAP recording the highest OPM amongst other companies. On the other hand, ABMM ranks second among other companies. Moreover, ABMM successfully increased its OPM from the lowest point to the second best among other companies. ABMM management succeeds in increasing its overall sales by riding the high price momentum while keeping its operational cost as low as possible.

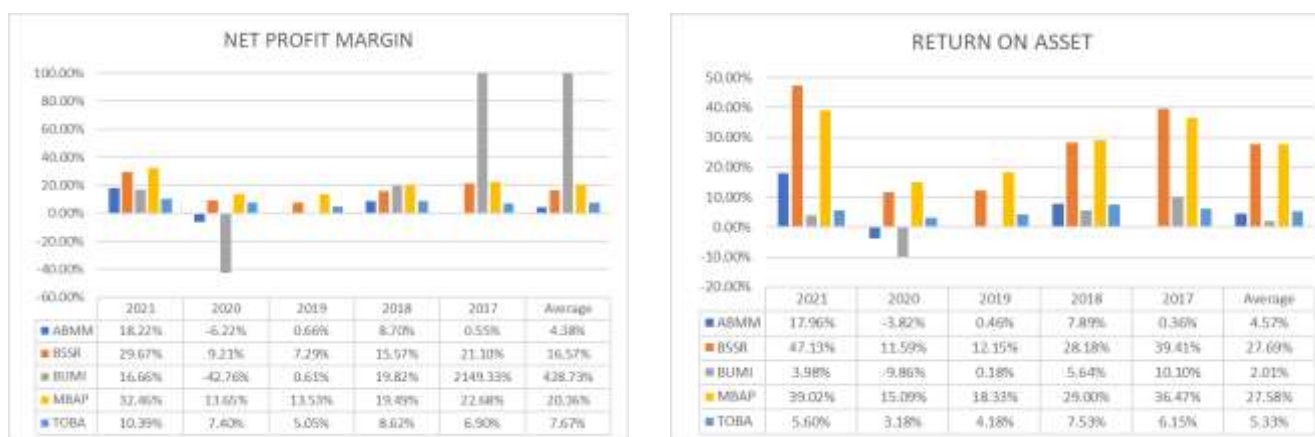


Figure 5. Net Profit Margin & Return on Asset



Figure 5 shows that in 2021 all companies experienced an increase in NPM from the previous period, with MBAP recording the highest NPM amongst other companies. On the other hand, ABMM ranks third among other companies. This shows that the financing structure of MBAP is better than ABMM. Therefore, the ABMM management needs to implement an optimal capital structure and maintain financial health by limiting debt and financial management with full caution. Figure 5 also shows that in 2021 all companies recorded the highest ROA in the last five years, with BSSR record the highest ROA amongst other companies. On the other hand, ABMM ranks third among other companies. The reason that ABMM ROA is not as high as BSSR and MBAP is because ABMM have a larger total assets than BSSR and MBAP. ABMM is an integrated mining business, meaning that ABMM’s operation covers mining, logistics, shipping, heavy equipment lease, and trading. In contrast, BSSR and MBAP operations are limited to upstream mining activity. Therefore, ABMM management needs better asset optimization and risk management to minimize loss.



Figure 6. Return on Equity

shows that in 2021 all companies recorded the highest ROE in the last five years, with BSSR recording the highest ROE amongst other companies. On the other hand, ABMM ranks second among other companies. This is because ABMM successfully reduced their overall debt and almost doubled its shareholders’ equity in 2021. Therefore, if ABMM management can keep improving its capital structure at the optimal level, The company’s ROE can also improve in parallel.

b) Liquidity Ratio



Figure 7. Current Ratio & Quick Ratio

Figure 7 shows that in 2021 almost all companies increased their current ratio value except for BUMI. The best current ratio position in 2021 is MBAP, while ABMM ranks second. MBAP can record a high current ratio value because their overall current liabilities



position is relatively low. Their operation activity is not dependent on short-term debt, they prefer to use hard cash. On the other hand, ABMM is still dependent on short-term debt because of the nature of its business operation. Nevertheless, their liquidity position is in strong position because their current ratio value has never been less than one in the last five years. Figure 7 also shows that in 2021 all companies increased their quick ratio value, with MBAP recording the highest quick ratio value. In contrast, ABMM ranks third, just behind BSSR. However, ABMM successfully improved its cash position from the previous periods which has a value of less than one. It shows that the ABMM management is trying to transform their short-term financing through cash rather than short-term debt. Nevertheless, ABMM is still in a strong liquidity position because its current asset minus inventory still covers its entire current liabilities.

c) Activity Ratio



Figure 8. Inventory Periods & Collection Periods

Figure 8 shows that in 2021 almost all companies improved their inventory periods except for BSSR. The best inventory periods in 2021 is TOBA, while ABMM ranks third. However, ABMM inventory periods have been stable for the last five years. It demonstrates that their vertical integration is operating smoothly. Nonetheless, the management can further improve their production effectiveness, for example, by utilizing digital transformation. Figure 8 also shows that in 2021 almost all companies improved their collection periods except for BUMI and MBAP. The best collection periods in 2021 is TOBA, while ABMM ranks fourth. In general, shorter collection periods are preferable to longer ones. However, it also can mean that the company credit terms are too strict. Customers who dislike the conditions their creditors offer may decide to look for suppliers or service providers with more forgiving payment policies. Therefore, if the management would like to improve their collection periods by restricting their credit terms, it still should be in a forgiving manner.



Figure 9. Total Asset Turnover



Figure 9 shows that in 2021 all companies successfully increased their Total Asset Turnover, with BSSR recording the highest amongst other companies. Meanwhile, ABMM ranks third among other companies. ABMM's revenue stream mostly comes from mining and mining contracts. However, their mining property ownership is less than ten percent of their total fixed asset. Meanwhile, one-third of their fixed asset is machinery and heavy equipment, which they use for manufacturing. Therefore, ABMM's management needs to improve its asset utilization. For instance, increasing their manufacturing share of income or disinvesting their current machinery and heavy equipment to invest in a more profitable source.

d) *Solvency Ratio*

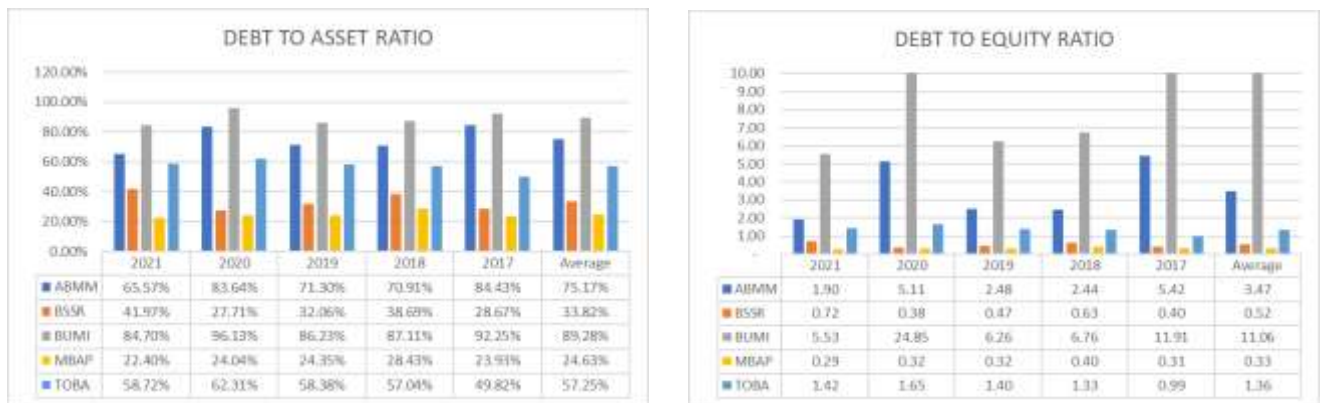


Figure 10. Debt to Asset Ratio & Debt to Equity Ratio

Figure 10 shows that in 2021 almost all companies successfully decreased their debt-to-asset ratio except for BSSR. The lowest debt-to-asset ratio in 2021 is MBAP, while ABMM ranks fourth. However, in 2017 - 2019, ABMM's debt-to-asset ratio is slowly decreasing, but when the COVID-19 pandemic hit in 2020, their debt-to-asset ratio rose to almost the same level as in 2017. It indicates that the management has been wanted to control the risk of debts in 2017, but then the pandemic hits. It is also worth noting that in 2021 ABMM's debt-to-asset ratio is at the lowest level since 2017, showing the management's commitment to control the risk of debts. Figure 10 also shows that in 2021 almost all companies successfully decreased their D/E ratio except for BSSR. The lowest D/E ratio in 2021 is MBAP, while ABMM ranks fourth. However, similar to the debt-to-asset ratio, ABMM's management commitment to control the debt risk is shown by decreasing the value of the D/E ratio. It also shows that while the management decreases the debt value, they simultaneously increase the equity value.

e) *Market Ratio*



Figure 11. Earning Per Share & Price to Earning Ratio



Figure 11 shows that in 2021 all companies successfully increased their EPS value, with MBAP recording the highest EPS amongst other companies. On the other hand, ABMM ranks third, just below BSSR. ABMM’s EPS in the last five years experienced high volatility. This happens because the nature of commodity companies’ performance is directly impacted by their commodity prices. Better risk management is needed to hedge the price volatility risk and keep the company profitable. Figure 11 also shows that in 2021 all companies successfully decreased their PER value, with ABMM recording the lowest PER amongst all companies. It shows that although the EPS value of ABMM is not as high as BSSR and MBAP, the current market price of ABMM is the cheapest relative to its net income. It is also worth mentioning that the mining industry’s average P/E ratio in 2021 is 5.57. Therefore, the current PER value of ABMM is still well below its industry average.

3) *F-Score*

The Piotroski F-Score is an instrument to identify the strength of a company financial position. The F-Score instrument use nine accounting-based criterion in the measurements. The criterion divided into three categories, which is profitability (4 criterion) , liquidity (3 criterion), and operational efficiency (2 criterion). For every criterion met, one point is awarded, otherwise, no points are awarded. The points accumulated then used to determined the strongest financial position. Table 2 below describe the results of the F-Score.

Table 2. Piotroski F-Score Result

Criteria	ABMM	BSSR	BUMI	MBAP	TOBA
Profitability					
Positive Net Income	1	1	1	1	1
Positive ROA	1	1	1	1	1
Positive Operating Cashflow	1	1	0	1	1
Cash Flow from Operation > Net Income	1	1	0	1	0
Liquidity					
Lower Long-Term Debt to Assets	1	0	1	1	1
Higher Current Ratio	1	1	0	1	1
No new shares Issued since the previous period	1	1	0	1	1
Operational Efficiency					
Higher Gross Margin	1	1	1	1	1
Higher Asset Turnover Ratio	1	1	1	1	1
Total Score	9	8	5	9	8

Table 2 shows that based on the 2021 financial period, ABMM and MBAP have the perfect score of 9, which means that ABMM and MBAP have the strongest financial position amongst other companies. On the other hand, BUMI has the worst score of 5 which means that BUMI has a weak financial position. Even though ABMM and MBAP have the same score, ABMM is still chosen in this study because it refers back to the PBV and PER value. To get the maximum potential gain, choosing the most undervalued company is necessary. ABMM PBV is 0.76 and PER is 3.19, while MBAP is 1.49 and 5.17 respectively. Therefore, ABMM overall PBV and PER value is still the most appealing for investing.

E. SWOT Analysis

Table 3. SWOT Analysis Result

Strength	Weakness	Opportunities	Threat
ABMM has a good liquidity position. Reflected by the increasing number of current & quick ratio over the five years period.	ABMM has a good liquidity position. Reflected by the increasing number of current & quick ratio over the five years period.	Indonesia’s GDP will continue to grow in 2023 by 5%. The increased in people’s purchasing power will	The acceleration of pursuing a renewable energy by the Indonesian Government will slowly decreasing coal demand



<p>ABMM has a good inventory management practice. Reflected by the stable value of inventory periods. ABMM has the strongest financial position compared to the benchmark companies according to Piotroski F-Score. ABMM is the most undervalued companies compared to its competitors.</p>	<p>ABMM has a good inventory management practice. Reflected by the stable value of inventory periods. ABMM has the strongest financial position compared to the benchmark companies according to Piotroski F-Score. ABMM is the most undervalued companies compared to its competitors.</p>	<p>encourage a strong economic recovery. A stable population growth in Indonesia will increase the electricity demand and coal demand will increase simultaneously. Coal price will stay well above its five years average in 2023 - 2025. New market opportunities in the EU as Russia cutting down its energy supply to the region.</p>	<p>Ban on the construction and early retirement of coal-based power plant will hinder national coal development High rivalry among existing companies. While ABMM is still a growing company, many of its competitors are at a mature stages and hold the majority of coal market share in Indonesia.</p>
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III. BUSINESS SOLUTION

This chapter discuss the analysis of the future prospect of ABMM. While the previous chapter already discuss the relative valuation of ABMM using P/E Ratio and PBV, it is only limited to the current value of the company. The future porspect of the company is still unknown. The analysis carried out in this chapter is using absolute valuation. The analysis is divided into three sections, normalized earnings, discounted cash flow, and monte carlo simulation.

A. Normalized Earnings

According to (Damodaran, 2009) If we want to remove our views of commodity prices from valuations of commodity companies, the safest way to do this is to use market-based prices for the commodity in our forecasts. The advantage of this approach is that it comes with a built-in mechanism for hedging against commodity price risk. The analysis carried out by regressing the coal price relative to the operating income of ABMM, then the calculation of normalized earnings relative to normalized coal price can be carried out.

1) Linear Regression Modelling

Linear Regression Modelling used to find the correlation model between the coal price and operating income of ABMM. The coal price used in this research is based on HBA (Harga Batu Bara Acuan). Figure 12 below is the graph of ABMM’s operating income as a function of the average HBA coal price each year from 2012 – 2022, and linear regression result respectively.



Figure 12. ABMM’s Operating Income relative to HBA & Linear Regression Result



Figure 12 shows that ABMM’s operating income is clearly increase and decreased as parallel as the HBA. Then Linear Regression in the Excel is used to find the correlation model. It also shows that the R2 is 0.72, which means that 72% variance of the operating income can be explained by the variance of the independent variable (Coal Price). According to Investopedia, in financial terms, R2 value above 0.7 indicates high level of correlation. And according to (Damodaran, 2009) the larger and more stable the firm, the higher the correlation between the two. Therefore, referring to the previously mentioned statements, there is a high level of correlation between ABMM’s operating income and the coal price (HBA). After it is found out that there is a correlation between the two variable, the correlation model can be accepted. The model is as follows:

$$\text{Normalized Operating Income} = 0 + 1145.035 * (\text{Average Coal Price})$$

After finding the correlation model for the normalized operating income, transforming it into equity value to generate the value per share is needed. Therefore the next step of calculation is determining the Weighted Average Cost of Capital (WACC).

2) *Weighted Average Cost of Capital (WACC)*

The weighted average cost of capital (WACC) measures a company’s total after-tax cost of capital. WACC is the average interest rate that a corporation anticipates paying to finance its assets. The data needed for WACC will be obtained through company reports, moody’s rating, Damodaran Rating, and Pefindo. The following Table III.2 is the data needed for WACC calculations.

Table 4. WACC Calculation Variables

No	Varibale	Value	Remarks	Source
1	Risk Free Rate	6.37%	Indonesia 10Y Bond Yeild	Ipba.co.id
2	Beta Stock	0.494	Adjusted Beta	Pefindo Jan 2022
3	Equity Risk Premium	6.12%	Equity Risk Premium Jan 2022	Damodaran
4	Country Default Spread	1.62%	Country Risk Premium Jan 2022	Damodaran
5	Default Spread	1.29%	ABMM's Interest Coverage Rate	Damodaran
6	Tax Rate	22%	Corporate Tax Rate	Financial Statement

The first step of the calculation is to calculate the Cost of Debt (CoD). Cost of Debt is the interest rate that a business pays on its obligations, which include loans and bonds. The results of the Cost of Debt calculations are described below.

$$\begin{aligned} \text{Cost of Debt} &= \text{Risk Free Rate} + (\text{Country Default Spread} + \text{Company Default Spread}) \\ \text{Cost of Debt} &= 6.37 + (1.62\% + 1.29\%) = 9.28\% \end{aligned}$$

Then, the calculation of Cost of Equity (CoE) is conducted. Cost of Equity is the anticipated return that a business needs for a project or investment, or the projected return that a person needs for an equity investment. The result of the Cost of Equity calculations are described below.

$$\begin{aligned} \text{Cost of Equity} &= \text{Risk Free Rate} + (\text{Beta} \times \text{Equity Risk Premium}) \\ \text{Cost of Equity} &= 6.37\% + (0.494 \times 6.12\%) = 9.39\% \end{aligned}$$

Lastly, after the Cost of Debt and Cost of Equity have been conducted, the calculation of WACC can be done. The results of the WACC calculations are described below.

$$WACC = (We \times CoE) + (Wd + CoD) \times (1 - t)$$



Table 5. WACC Calculation Result

Variables	Value
ABMM's Debt (USD)	387,656,000
ABMM's Equity (USD)	345,688,000
Total Debt + Equity (USD)	733,344,000
Wd	52.86%
We	47.14%
Cost of Debt	9.28%
Cost of Equity	9.39%
WACC	8.25%

3) Normalized Earnings Valuation

After all variables to compute the valuation are obtained, the next step is to transform it into equity value or value of operating asset. The first step of the process is to calculate the normalized operating income based on the regression result that have been conducted. The result of normalized operating income is described below.

$$\begin{aligned} \text{Normalized Operating Income} &= 0 + (1145.035 \times \text{Average Coal Price}) \\ \text{Normalized Operating Income} &= 0 + (1145.035 \times 89.07) = 101,992,887 \end{aligned}$$

The average coal price used for this calculation is obtained from the average HBA 2012 – 2021 weekly data. As seen on the calculation, the normalized operating income is US\$ 101,992,887. Then, the next step of the calculation is to calculate the Return on Capital. But first, calculating the invested capital is needed. The result of Invested Capital and Return on Capital is described below.

$$\begin{aligned} \text{Invested Capital} &= \text{Equity Value} + \text{Debt Value} - \text{Cash} \\ \text{Invested Capital} &= 345,688,000 + 387,656,000 - 237,220,441 = 496,123,559 \\ \text{Return on Capital} &= \frac{\text{Operating Income} \times (1 - \text{tax rate})}{\text{Invested Capital}} \\ \text{Return on Capital} &= \frac{101,992,887 \times (1 - 0.22)}{237,220,441} = 16.04\% \end{aligned}$$

After all variables have been obtained, the calculation of the value of operating assets can be done. The result of the calculation of operating asset is described below.

$$\begin{aligned} \text{Value of Operating Assets} &= \frac{\text{Operating Income} \times (1 + g) \times (1 - \text{tax Rate}) \times \left(1 - \frac{g}{\text{ROC}}\right)}{(\text{WACC} - g)} \\ \text{Value of Operating Assets} &= \frac{101,992,887 \times (1 + 0.02) \times (1 - 0.22) \times \left(1 - \frac{0.02}{0.16}\right)}{(0.0825 - 0.02)} = \text{US\$ } 1,135,955,303 \end{aligned}$$

As seen on the equation above, the value of operating assets of ABMM is at US\$ 1,135 million, slightly higher than the actual total assets of US\$1,043 million. Lastly, the calculation of value per share is needed in order to find out the intrinsic value of ABMM. The result of the value per share is described below.

$$\begin{aligned} \text{Value Per Share} &= \frac{\text{Operating Assets} + \text{Cash} - \text{Debt}}{\text{Number of Shares Outstanding}} \\ \text{Value Per Share} &= \frac{1,135,955,303 + 237,220,441 - 387,656,000}{2,753,165,000} = \text{US\$ } 0.358 = \text{IDR } 5,317 \end{aligned}$$



As seen on the calculation above, the intrinsic value per share of ABMM is US\$ 0.358 or IDR 5,317 (multiplied by USD to IDR exchange rate of IDR 14,855). From these result it can be concluded that through normalized earnings calculation the current market value of IDR 3000 (September 2022) is lower than the intrinsic value or in other words, ABMM is currently undervalued. This shows an upside of IDR 2,317/share or around 77% from the current market price. Figure 13 below depict the value of ABMM as a function of the normalized coal price.



Figure 13. Normalized Coal Price and Value Per Share

Operating income and return on capital will fluctuate with the coal price. But the capital invested figure at US\$1,135 million is maintained and to re-estimate the return on capital, the calculation is using the expected operating income. For example, if the normalized coal price is US\$60, then the value per share is IDR 3000, which is the same as the price of the current stock price. Or, to put it another way, any investor who thinks that the coal price will remain stable above this point will think that ABMM is undervalued.

B. Discounted Cash Flow

The second method used in this research is Discounted Cash Flow (DCF) Analysis. DCF Analysis is a method of valuation that calculates an investment’s worth using its anticipated future cash flows. Using estimates of how much money an investment will make in the future, DCF analysis seeks to evaluate the value of an investment now, or the present value of the investment.

1) Income Statement Projection

Income Statement is a report that shows a company’s profitability on a certain period. Estimating the company’s future Income Statement is needed in order to be the basis for calculating the Discounted Cash Flow. The Assumption used for the calculation is based on 2017 – 2021 financial report of ABMM. For the Depreciation and Amortization account, this research used percentage average of SG&A Expenses because in the financial statement those account are included in the SG&A Expenses account. Therefore, using the assumption is the most reasonable. There is also some account that does not included in the assumptions due to insufficient data and the value of the account is not significant. Furthermore, for other accounts, average percentage is used because it can produce a roughly precise value for the projection. The following Table III.6 described the Income Statement Projection using the previously explained assumption.



Table 6. Income Statement Assumption

Income Statement (Thousand US\$)	2021	2022F	2023F	2024F	2025F	2026F
Revenue	1,021,866	1,775,112	1,279,622	1,184,860	1,204,023	1,223,569
COGS	655,509	1,365,954	984,673	911,753	926,499	941,540
Gross Profit	366,357	409,158	294,949	273,107	277,524	282,029
SG&A Expense	60,086	156,572	112,868	104,510	106,200	107,924
Impairment (Loss)/Gain on Mining Property	-	-	-	-	-	-
Other Income	15,755	24,942	17,980	16,648	16,918	17,192
Depreciation & Amortization	4,252	16,173	11,659	10,795	10,970	11,148
Other Expense	18,524	46,203	33,306	30,840	31,339	31,847
Operating Income	303,502	231,324	166,754	154,405	156,903	159,450
Net Non Operating Interest (Expense)/Income	(55,711)	-	-	-	-	-
EBIT	247,791	231,324	166,754	154,405	156,903	159,450
NOPAT	193,277	180,433	130,068	120,436	122,384	124,371
EBITDA	307,754	247,497	178,413	165,201	167,873	170,598
Tax Expense	61,607	50,891	36,686	33,969	34,519	35,079
Net Profit	186,184	180,433	130,068	120,436	122,384	124,371

2) *Balance Sheet Projection*

Balance Sheet provides information regarding the condition of the company based on its assets, liabilities, and equity. ABMM's Balance Sheet Projection is required to conduct stock valuation in the future. The account's needed for the projection are: Cash, Cash Equivalents, and Short Term Investments, Account Receivables, Inventories, Fixed Asset, Mining Properties, Investment in Shares & Long Term Receivables, Intangibles Asset, Account Payable, Accruals, Tax Payable, Long-Term Debt, Etc.

Table 7. Balance Sheet Assumption

Balance Sheet (Thousand US\$)	2021	2022F	2023F	2024F	2025F	2026F
Cash, Cash Equivalent, & Short Term Investment	237,293	377,120	233,956	158,021	101,783	46,223
Accounts Receivable	164,630	339,976	245,078	226,929	230,599	234,342
Inventories	39,690	82,830	59,710	55,288	56,182	57,094
Other Current Assets	53,581	62,055	44,734	41,421	42,091	42,774
Total Current Assets	495,194	861,981	583,477	481,658	430,654	380,433
Fixed Asset	349,195	368,736	389,369	411,158	434,166	458,461
Mining Properties	36,033	44,431	46,917	49,543	52,315	55,242
Investment In Share & Long Term Receivables	23,463	23,562	24,881	26,273	27,743	29,296



Balance Sheet (Thousand US\$)	2021	2022F	2023F	2024F	2025F	2026F
Intangibles Asset	79,986	32,493	34,311	36,231	38,259	40,400
Other Non Current Asset	52,833	60,831	64,235	67,829	71,625	75,633
Total Non Current Asset	541,510	530,052	559,713	591,034	624,108	659,032
Total Asset	1,036,704	1,392,033	1,143,190	1,072,692	1,054,762	1,039,465
Account Payables	134,817	312,150	225,019	208,355	211,725	215,162
Accruals	60,558	141,064	101,688	94,158	95,681	97,234
Tax Payable	50,338	47,162	33,997	31,480	31,989	32,508
Short Term & Current Portion of Long Term Debt	38,150	32,247	29,272	26,571	24,119	21,894
Other Current Liabilities	15,829	21,513	15,508	14,360	14,592	14,829
Total Current Liabilities	299,692	554,135	405,485	374,923	378,106	381,627
Provision for Environment Restoration	4,957	4,083	4,312	4,553	4,808	5,077
Long Term Debt	349,506	317,259	287,988	261,417	237,298	215,404
Deffered Tax	5,647	26,337	18,986	17,580	17,864	18,154
Long Term Employee Benefits Liabilities	20,012	48,125	34,692	32,123	32,642	33,172
Total Non Current Liabilities	380,122	395,805	345,977	315,673	292,612	271,807
Total Liabilities	679,814	949,940	751,462	690,596	670,718	653,434
Shareholders' Equity	345,688	442,093	391,728	382,096	384,044	386,031
Retained Earnings	124,092	179,923	129,558	119,926	121,874	123,861
Total Equity	356,890	442,093	391,728	382,096	384,044	386,031
Total Liabilities & Equity	1,036,704	1,392,033	1,143,190	1,072,692	1,054,762	1,039,465

The assumptions used for the balance sheet projection is based on the historical performance of ABMM. For the account receivables, the average days of collection period is used for the projection. For inventories, the average days of inventory periods is used for the projection. For the account payables and other current liabilities, the average days of payable period is used for the projection. Furthermore, other accounts primarily use the average growth for the balance sheet projection.



3) *Discounted Cash Flow Valuation*

The DCF analysis forecasts future revenue and assists investors in choosing between various investment options, including stock purchases and firm acquisitions. The variable needed to do a DCF analysis are EBIT, EBITDA, and NOPAT. EBIT is calculated by taking the total profit and deducting all operating costs and depreciation. The depreciation value is then added back to EBIT to create EBITDA. The value of the available cash flows from operations after subtracting depreciation, costs, taxes, CAPEX, working capital, etc is shown by the flow to firm (FCFF) calculation, which may also be used to compute NOPAT. The formula and assumptions for calculating FCFF is explained below.

$$FCFF = EBIT - Tax + Depreciation - Working Capital - CapEx$$

Table 8. Assumption used for DCF Analysis

Assumptions	
Tax Rate	22.00%
Discount Rate	8.25%
Perpetual Growth Rate	2.00%
EV/EBITDA Multiple	2.08x
Current Price	3,000
Share Outstanding	2,753,165,000
Debt (Thousand US\$)	387,656
Cash (Thousand US\$)	237,293
Capex (Thousand US\$)	82,940

Table 8 shows the assumption used to conduct a DCF analysis. The tax rate was obtained from the financial statement of ABMM. The discount rate is obtained from the WACC calculation that previously have been done. The perpetual growth rate is the obtained from the World Bank Commodity Outlook 2022, in the coal energy section. Then, other assumptions are obtained from the latest annual financial report at the end of 2021 fiscal year. After all the data needed for the analysis have been obtained, the calculation of FCFF can be done. Table 9 below described the FCFF calculation of ABMM.

Table 9. ABMM FCFF Calculation

Discounted Cash Flow (Thousand US\$)	Entry	2022F	2023F	2024F	2025F	2026F	Exit
Time Periods		0	1	2	3	4	
EBIT		231,324	166,754	154,405	156,903	159,450	
Less: Cash Taxes		50,891	36,686	33,969	34,519	35,079	
Plus: D&A		16,173	11,659	10,795	10,970	11,148	
Less: CAPEX		35,714	32,293	32,584	33,978	35,443	
Less: Change in NWC		41,153	(30,888)	(5,907)	1,195	1,218	
Unlevered FCF		119,740	140,322	104,555	98,182	98,857	
(Entry)/Exit	(641,503)						984,165
Transaction CF	-	119,740	140,322	104,555	98,182	98,857	984,165
Transaction CF	(641,503)	119,740	140,322	104,555	98,182	98,857	984,165

After conducting the FCFF calculations, the next step is to calculate the Free Cash Flow to Equity (FCFE). This calculation is useful to find out the comparison between the existing market value and the company’s intrinsic value. FCFE is done by first, calculating the enterprise value in the market by taking the market capitalization added by the debt outstanding and subtracted by the cash. Then, to analyze the enterprise value of the intrinsic value, generating the Net Present Value (NPV) of the cash flow generated from the FCFF result is done. Lastly, the NPV is added with the cash and subtracted with the debt outstanding. Table III.9, Table III.10 below described the intrinsic value and the market value of ABMM, and intrinsic value upside & internal rate of return respectively.



Table 10. Intrinsic Value & Market Value of ABMM

Intrinsic Value		Market Value	
Enterprise Value	1,112,853	Market Capitalization	491,140
Plus: Cash	237,293	Plus: Debt	387,656
Less: Debt	387,656	Less: Cash	237,293
Equity Value	962,490	Enterprise Value	641,503
Equity Value/Share	5,193	Equity Value/Share	3,000

Table 11. Intrinsic Value Upside & Internal Rate of Return

Rate of Return	
Target Price Upside	73.11%
Internal Rate of Return	24.63%

Market Value vs. Intrinsic Value	
Market Value	3,000
Intrinsic Value	5,193
Upside	2,193

Table 10 shows that the intrinsic value of ABMM using DCF analysis is IDR 5,193/share. From these result it can be concluded that through DCF analysis, the intrinsic value of ABMM is much higher than the market value which is IDR 3000, or in other words, ABMM is currently undervalued. The table also shows there is an upside of IDR 2,193 or 73.11%. Furthermore, it is also shows that the IRR obtained is at 24%.

C. Monte Carlo Simulation

In this research, the simulation used is the Monte Carlo Simulation. Since the premise that the key driver of revenue, earnings, cash flow and value for ABMM is the coal price, simulation can be used to derive the value of ABMM. Monte Carlo Simulation is an analysis that obtained a comprehensive information regarding the financial risk of investment based on the valuation. The first step of the process is to determine the probability distribution for the coal price. In this research, the coal price used is the HBA coal price. Using historical data on HBA coal price, adjusted for inflation, to both define the distribution and estimate its parameters. Figure 14 below summarize the distribution of HBA coal price.



Figure 14. HBA Coal Price Distribution

Figure 14 shows that the coal prices can vary from about US\$50 per tonne at the minimum to more than US\$300 per tonne at the maximum. Then from the graph it also shown that the statistical distribution that seemed to provide the closest fit is the lognormal distribution (right-skewed curve). Then, we chose the parameter values that yielded numbers closest to the historical data.



Afterwards, linking the operating income result to the coal price. To link the two, this research used the previous correlation model that have been done, which described below

$$\text{Normalized Operating Income} = 0 + 1145.035 * (\text{Average Coal Price})$$

There are two levels at which the operational income fluctuations impact the firm’s value. The first is that the lower the operating income, other things will remain equal, while lowering the base free cash flow, and it reduces its value, and vice versa. The second is that while operational revenue fluctuates, the return on capital is updated while retaining the capital invested constant. To maintain the consistent growth rate of 2%, the company will need to reinvest more as operating income diminishes, which also affects return on capital. Furthermore, while it could be possible to allowed the WACC and the growth rate to vary, to keep it comfortable, both of those numbers are left as fixed numbers. The last step of the process is to develop a distribution for the intrinsic value. In this research, it used an Excel function to develop it. The Excel function will ran 1,000 simulations, letting the coal price to vary and valuing the firm and intrinsic value per share in each simulation. The intrinsic value distribution and the simulation result are summarized in Figure 15 and Table 12 below respectively.



Figure 15. Intrinsic Value Distribution

Table 12. Simulation Results

Descriptive Statistics	
Min	750.00
Max	16,441.47
Mean	5,233.04
Stdev	2,375.56
Median	4,912.44
Kurtosis	0.53
Skewness	0.71
Prob Value < 3000	18.45%

shows that the intrinsic value vary from the minimum value of IDR 750 to the maximum value of IDR 16,441. For this research the intrinsic value is obtained from the mean value of the simulation which is IDR 5,233. The intrinsic value from simulation also shows that the current stock price of ABMM is undervalued. From the 1,000 simulation ran it also shows that there is 18.45% probability that the price will drop to below its current price. it also means that there a 81,55% chance that the price will go rise from the current prices.

IV. CONCLUSION AND RECOMMENDATION

A. Conclusion

The conclusion of this research will explain the main findings from the study and answers the research questions:

1. The financial performance of ABMM when viewed from its financial statement from 2017 – 2021 is strongly increased in 2021, but stagnant in 2017 – 2020. This is due to DMO policy, and COVID-19 pandemic. However, the Piotroski F-Score shows that ABMM financial health is the strongest at 9 points similar to MBAP, while other benchmark companies are below that score with BUMI scored the lowest at 5 points. Therefore, ABMM financial performance indicating a strong performance.
2. The intrinsic value of ABMM is done through an Absolute Valuation method. This method divided into three parts, normalized earnings valuation, DCF valuation, and Monte Carlo Simulation. Through normalized earnings valuation, the intrinsic value of ABMM is at IDR 5,137. Through DCF valuation, the intrinsic value of ABMM is at IDR 5,193. Lastly, through Monte Carlo Simulations, after running 1,000 simulations the mean value or the intrinsic value of ABMM is at IDR 5,233.
3. After obtaining the valuations result through three absolute valuation method, the normalized earnings valuation shows an upside of IDR 2,317 or 77%, the DCF valuation shows an upside of IDR 2,193 or 73%, and lastly, the Monte Carlo Simulation shows an upside of IDR 2,233 or 74%. Therefore, from all three method, ABMM current stock price is considered as undervalued.



B. Recommendation

Based on the results obtained from the Absolute Valuation method (Normalized Earnings, DCF Analysis, and Monte Carlo Simulation) in calculating the intrinsic value of ABMM, this research recommend to buy the ABMM stock. It is because from three absolute valuation method it was showed that the current stock price is undervalued, meaning that anyone that buy the stock at its current price (3000) will get a capital gain from its investment. The capital gain expected is around 74 – 77 percent from its current value. After the price hit around IDR 5,137 – IDR 5,233, the recommendation is either to sell or continue to invest, if it decided to continue to invest, further research should be done. It is also worth buying because the Monte Carlo Simulation shows that there is an 82% percent chance that the stock price will go above its current price. Then referring to the World Bank Commodity Projection, the coal price will moderately declining in 2023 although it will stay above its 5 years average price, showing that the Monte Carlo Simulation are in the right track.

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