

THE LINK OF CURRENT RATIO, BENCHMARK COAL PRICE, RETURN ON ASSETS, AND DEBT TO EQUITY RATIO TO CASH HOLDING: THE CASE OF ADARO ENERGY TBK IN 2018 – 2022

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Abstract

In the modern era of financial management, effective cash management plays a critical role in ensuring the stability and growth of companies across various industries. Understanding the factors that influence cash holdings has become a subject of substantial interest for researchers and practitioners alike. This study aims to explore the intricate relationship between four key financial variables, namely the current ratio, coal price index, debt to equity ratio, and return on assets, and their impact on the cash holding decisions of PT Adaro Energy Indonesia during the 2018 – 2022 financial years. By examining these interrelated factors, this paper offers valuable insights into the dynamics of corporate cash management, providing a foundation for strategic financial planning and decision-making. The results of the study found that all independent variables have a simultaneous but no partial effect on cash holding.

Keywords: *benchmark coal price, cash holding, current ratio, debt to equity, return on asset*

HUBUNGAN CURRENT RATIO, BENCHMARK COAL PRICE, RETURN ON ASSETS, DAN DEBT TO EQUITY RATIO TERHADAP CASH HOLDING: KASUS ADARO ENERGY TBK TAHUN 2018 – 2022

Abstrak

Di era modern manajemen keuangan, manajemen kas yang efektif memainkan peran penting dalam memastikan stabilitas dan pertumbuhan perusahaan di berbagai industri. Memahami faktor-faktor yang mempengaruhi kepemilikan uang tunai telah menjadi subjek yang sangat menarik bagi para peneliti dan praktisi. Penelitian ini bertujuan untuk mengeksplorasi hubungan rumit antara empat variabel keuangan utama, yaitu rasio lancar, indeks harga batubara, rasio utang terhadap ekuitas, dan pengembalian aset, dan dampaknya terhadap keputusan kepemilikan kas PT Adaro Energy Indonesia Tbk pada tahun 2018 – 2022. Dengan memeriksa faktor-faktor yang saling terkait ini, makalah ini menawarkan wawasan berharga tentang dinamika manajemen kas perusahaan, memberikan landasan bagi perencanaan keuangan strategis dan pengambilan keputusan. Hasil penelitian menemukan bahwa semua variabel independen memiliki efek simultan tetapi tidak parsial terhadap kepemilikan kas.

Kata Kunci: *harga batubara acuan, kepemilikan kas, rasio lancar, debt to equity, return on asset*

INTRODUCTION

Cash, often referred to as a company's "lifeblood," represents the ability to meet short-term obligations, invest in growth opportunities, and deal with unexpected financial downturns (Amess et al., 2015). Efficient cash management is critical to a company's survival and success, as it ensures the availability of liquid assets when needed, minimizes costs associated with external financing, and improves overall financial stability. As a result, researchers and financial managers have sought to uncover the determinants of cash ownership to optimize cash management strategies and improve company performance.

Previous studies have extensively explored factors that affect cash holdings, including company size, industry characteristics, profitability, and financial flexibility (Akben-Selcuk & Altiook-Yilmaz, 2017; Yun et al., 2021). However, the role of certain financial ratios and external market factors, such as the Benchmark Coal Price, in shaping a company's cash ownership decisions remains relatively unexplored. Recognizing this knowledge gap, the study investigated the relationship between the current ratio, benchmark coal price, debt to equity ratio, return on assets, and cash holdings.

The current ratio reflects a company's short-term solvency by comparing its current assets with its current liabilities. Optimal current ratios ensure the availability of sufficient liquid assets to meet financial obligations promptly (Coulon, 2020b). The benchmark coal price, as an external market factor, has the potential to affect cash holdings due to its impact on production costs, revenues, and overall business operations. Meanwhile, the debt to equity ratio highlights the company's capital structure and financial risk profile (Coulon, 2020a). Lastly, return on assets provides insight into a company's profitability, reflecting the efficiency of using its assets to generate revenue (Cai et al., 2019). By understanding their effect on cash holdings, financial managers can assess the optimal balance between debt and equity to maximize cash availability. Interestingly, PT Adaro Energy Indonesia Tbk – one of the biggest coal public companies from Indonesia – has a dividend payout ratio of 40.5% by 2022, especially during the elevated coal price index. This is intriguing, as other companies such as Indo Tambangraya Megah Tbk, Bukit Asam Tbk, Mitrabara Adiperdana Tbk, and Golden Energy Mines Tbk have a dividend payout ratio of > 60% and up to 100%. Furthermore, dividend cashout is linked to the cash holding of a company. Therefore, by integrating these important financial variables, this study aims to explain the complex relationship between these factors to a company's cash-holding decisions. Understanding the interaction between these variables can help financial managers adopt appropriate cash management policies, reduce financial risk, and optimize company performance. These empirical findings from PT Adaro Energy Indonesia Tbk will contribute to existing knowledge of cash management and offer practical implications for financial decision-makers in various industries, particularly the energy and mining industries.

LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

Current Ratio

Liquidity measures a company's ability, especially the availability of cash to pay maturing obligations. This condition can affect business operations and company profitability. The liquidity ratio that is widely used for liquidity management is the current ratio (CR). A low CR usually indicates that there are problems regarding the company's liquidity, while a high CR indicates a good amount of cash reserves to pay short-term obligations (Usman, 2022). Therefore, the first hypothesis in this study is:

H₁: "CR positively affects Cash Holding".

According to Insan and Purnama (2021), CR can be measured through the following equation:

$$\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liability}}$$

Benchmark Coal Price

The benchmark coal price (BCP) is obtained from the website of the Ministry of Energy and Mineral Resources (<https://www.minerba.esdm.go.id>). The price obtained is in units of USD per ton, which is then divided by 100 so that there is a large adjustment of data with other variables. Previous research on 9 coal companies in Indonesia found that BCP had no significant effect on Cash Holding (Endri et al., 2020). However, logically, the higher the BCP, the higher the profit obtained by the company, including in the form of cash. Therefore, the second hypothesis in this study is:

H₂: “BCP positively affects Cash Holding”.

Return on Asset

According to the pecking order theory, highly profitable companies often have high cash reserves for reinvestment, which is consistent with previous research (Al-Najjar & Clark, 2017). Companies are used to holding profits to create liquidity and competitive advantage in their business, which is the reason why they maintain a high level of cash ownership to give them profits. Thus, profitability has a positive effect on the company's cash holdings. One of the main measures of profitability is the return on asset (ROA). The third hypothesis in this study is:

H₃: “ROA positively affects Cash Holding”.

According to Kurniasari (2017), ROA can be measured through the following equation:

$$\text{Return on Asset} = \frac{\text{Net Profit}}{\text{Total Asset}}$$

Debt to Equity Ratio

According to the trade-off theory, highly leveraged companies have high financial risks. Therefore, under the supervision of financial institutions, corporations need to have high cash holdings. This can mean that companies have various insurance assets or liquid assets to demonstrate their ability to pay in case of financial hardship (Amess et al., 2015). Thus, there is a positive relationship between corporate leverage with the company's cash holdings. One metric for leverage is the debt to equity ratio (DER). The fourth hypothesis in this study is:

H₄: “DER positively affects Cash Holding”.

According to Sherman (2015), DER can be measured through the following equation:

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liability}}{\text{Total Equity}}$$

Cash Holding

Cash holdings have gained significant attention for their role in reducing the risk of potential cash shortages, especially in situations where credit constraints, capital markets, and financial crises can lead to devaluation. During such crises, cash holdings serve as a protective mechanism against credit constraints and limitations in capital markets, providing a buffer to navigate and navigate difficult financial circumstances (Alves et al., 2022). The proxy used in calculating cash holding (CH) is to compare cash and cash equivalents with the company's total assets. The ratio is to find out how much the company holds cash withheld. Subsequently, the fifth hypothesis of the study is:

H₅: “CR, BCP, ROA, and DER simultaneously affect Cash Holding”.

According to Thu and Khuong (2018), CH can be measured as follows:

$$\text{Cash Holding} = \frac{\text{Cash \& Cash Equivalent}}{\text{Total Asset}}$$

RESEARCH METHOD

This research is based on secondary data obtained from the quarterly Financial Statement of PT Adaro Energy Indonesia Tbk for the period 2018 – 2022. Data analysis is carried out using panel data consisting of time series data. The panel data regression test is used in assessing the relationship between independent variables in the form of Liquidity (Current Ratio), Benchmark Coal Price, Profitability (Return on Assets), and Leverage (Debt to Equity Ratio) and dependent variables in the form of Cash Holding. Classical assumptions are also used to improve the quality of data used in regression. Complementary analyses in regression tests include partial tests, simultaneous tests, and determination of coefficients of determination. The analysis was performed using IBM Statistical Package for Social Sciences (SPSS) version 25. The regression models used in this panel data are:

$$Y = \alpha + \beta_1.X1 + \beta_2.X2 + \beta_3.X3 + \beta_4.X4 + e$$

With α = Constant; β = Coefficient; e = Error; β_1 = Current Ratio; β_2 = Benchmark Coal Price; β_3 = Return on Asset; β_4 = Debt to Equity Ratio; and Y = Cash Holding.

RESULT AND ANALYSIS

Table 1 summarizes several economic metrics of PT Adaro Energy Indonesia Tbk for the period 2018 – 2022. PT Adaro Energy Indonesia Tbk's balance sheet is healthy, with an average CR and DER value of 1.9748 and 0.6431, respectively. This is because the value of $CR > 1$ and $DER < 1$ is categorized as good for a company's balance sheet in general. Furthermore, the composition of cash held by the company has an average of 19.40%. Large cash composition can be a challenge, given that excessive cash can be poorly organized and lead to depreciation in value; which should be used to generate profitability (Banjade & Diltz, 2022). Furthermore, BCP experienced significant price fluctuations with an average of 1.2760 and a price spread of 0.49 – 3.24.

Table 1

Descriptive Statistic of Variables

	Minimum	Maximum	Mean	Standard Deviation
Current Ratio (X1)	1,23	2,62	1,9748	0,39210
Benchmark Coal Price (X2)	0,49	3,24	1,2760	0,86839
Return on Asset (X3)	0,1	0,26	0,0681	0,07000
Debt to Equity (X4)	0,55	0,81	0,6431	0,05963
Cash Holding (Y)	0,12	0,38	0,1940	0,06700

Table 2 represents the relationship of CR, BCP, ROA, and DER with CH based on multiple linear regression analysis, which is obtained from panel data with a total of 20 data and at a confidence level of 5%. From the results of linear regression also obtained an equation that can estimate the value of CH.

Table 2
Multiple Linear Regression

	Unstandardized Coefficient		Standardized Coefficient	t	Sig.
Model 1	B	Std. Error	Beta		
Constant	-0,049	0,102		-0,481	0,638
Current Ratio (X1)	0,007	0,028	0,042	0,252	0,804
Benchmark Coal Price (X2)	0,027	0,028	0,344	0,945	0,360
Return on Asset (X3)	0,558	0,281	0,583	0,1983	0,066
Debt to Equity (X4)	0,244	0,154	0,218	0,1586	0,134

Dependent Variable: Cash Holding (Y)

$$Y = -0,049 + 0,007.X1 + 0,027.X2 + 0,558.X3 + 0,244.X4 + e$$

Table 2 indicates that only ROA (X3) is marginally significant which influences the value of CH (Y). From this equation, it can be seen that ROA has the greatest contribution to the value of CH. This result is interesting, given that other studies have proven that ROA is strongly correlated with dividend distribution, which is an indicator of the availability of "real cash" that a company can distribute to investors (Chakkravarthy et al., 2023). On the other hand, other variables such as CR, BCP, and DER do not influence the value of CH, and their effects can be considered as 0.

Table 2 shows that CR has no significant effect on CH ($p > 0.05$). Several factors can explain why CR does not have a significant influence on CH on PT Adaro Energy Indonesia Tbk. First, energy and mining companies generally have business characteristics that are different from other sectors. These industries often have large investments in fixed assets such as high-value infrastructure, machinery, and equipment. Therefore, cash flows generated by companies tend to come from long-term operational activities, such as energy sales or mining commodity production. In this context, current assets covered by CR may not be the primary determining factor in a company's decision regarding CH. Second, energy and mining companies often have a high-risk nature of business. They face significant fluctuations in commodity prices and regulatory changes that could affect their income and cash flow. In such a situation, companies may focus more on mitigating risk and maintaining sufficient liquidity to deal with uncertainty in their industry. Therefore, a company's decision to hold cash may be more influenced by other risk and financial factors, such as the availability of access to external sources of financing or changes in capital structure. Third, in the context of energy and mining companies, external factors such as fluctuations in commodity prices have a more significant impact on CH decisions than internal financial ratios. The price of commodities such as coal can fluctuate

substantially, which can affect a company's earnings and cash flow. Therefore, companies are more likely to use risk management strategies or other financial instruments to cope with commodity price volatility, rather than relying on CR as a major factor in CH decisions (Lee et al., 2023).

Table 2 shows that BCP has no significant effect on CH ($p > 0.05$). BCP is often considered an important factor that can influence company performance and CH-related management decisions. However, studies have shown that BCPs generally do not have a significant influence on a company's CH (Endri et al., 2020; Kusuma et al., 2018). Energy and mining companies tend to have high-risk businesses and are influenced by external factors that are difficult to control. For example, BCPs can vary significantly due to global market factors, including demand and supply, government policies, and changes in global economic conditions. Therefore, BCP fluctuations tend to be beyond the direct control of energy and mining companies and are not a major factor in CH decisions. On the other hand, energy and mining companies have long business cycles in their operational planning and development. Investment decisions in infrastructure, mine exploration, and energy project development are often based on long-term projections and coal price assumptions that are more conservative than BCPs. Therefore, CH decisions tend to be influenced by broader long-term considerations, such as return on investment, capital requirements, and the balance between the company's liquidity and growth needs.

Table 2 shows that ROA has no significant effect on CH ($p > 0.05$). Although ROA is considered an important performance indicator, there is evidence to suggest that it does not significantly or negatively affect CH in energy companies (Thu & Khuong, 2018). This can be caused by several things. First, fluctuations in commodity prices can have an impact on the company's revenue and profits. Therefore, ROA may not be the dominant factor in a company's decision regarding CH, as fluctuations in commodity prices can interfere with operational performance and profits reflected in ROA. Second, energy and mining companies also face significant R&D risks to create technological innovation, operational efficiency, and environmental sustainability. R&D often requires substantial investment and generates negative cash flow in the short term. In this case, a company's CH decision is more likely to be influenced by the need to finance R&D and innovation initiatives than by ROA (Khatib et al., 2022).

Table 2 shows that DER has no significant effect on CH ($p > 0.05$). Although DER is often considered an important indicator in financial analysis, there is evidence to suggest that DER does not have a significant influence on CH in energy and mining companies (Angelica & Suhendah, 2022). Some of the factors that can influence this are explained as follows. First, energy and mining companies often require significant funds to finance mining development projects, natural resource exploration, and infrastructure development. Due to the capital-intensive nature of these businesses, companies tend to have higher levels of debt compared to other industries. Therefore, high DER in energy and mining companies may be common and do not have a significant influence on CH decisions. Second, CH decisions tend to be influenced by broader liquidity considerations, including the need to finance capital investments, maintain cash reserves to deal with risks and uncertainties and maintain financial flexibility in the face of market changes. Third, energy and mining companies often have better access to capital markets and external sources of financing. Because of the risk profile associated with these industries, they often attract investors and financial institutions willing to provide large amounts of loans or capital investments. Thus, companies in this sector may rely more on external financing than on CH derived from profits generated. Therefore, DER may not have a significant influence on CH because companies can obtain funds through external financing sources (Nejadmalayeri & Usman, 2022).

The simultaneous effects of variables X1 to X4 on CH are also analyzed and presented in Table 3. Based on these results, it can be concluded that all variables simultaneously affect the value of CH (Y) marked with $p < 0.05$. It can also be defined that all variables synergize to affect cash ownership in PT Adaro Energy Indonesia Tbk. This result is similar to other studies that found that firm size, profitability, leverage, sales growth, and capital expenditure together affect the company's CH tendency (Octavian et al., 2022).

Table 3**ANOVA Assay**

Model		Sum of Squares	dF	Mean Square	F	Sig.
1	Regression	16,867	4	4,217	2,748	0,032
	Residual	170,311	111	1,534		
	Total	187,178	115			

Dependent Variable: Cash Holding (Y)

Predictor: (Constant), Cash Holding (X4), Leverage (X3), Benchmark Coal Price (X2), Liquidity (X1)

The coefficient of determination describes how accurately independent variables can estimate the value of the dependent variable. The coefficient of determination test in this study is presented in Table 4, which explains that CR, BCP, ROA, and DER can estimate CH values of 77.1%. Another explanation is that all independent variables together affect the CH value by 77.1%. This value is relatively high and similar to other studies that also examine the determinants that affect CH in companies (Angelica & Suhendah, 2022). The study also found that other factors such as the availability of working capital and company size were other factors that contributed to CH. This is also supported by other studies that leverage, profitability, liquidity, company size, and capital expenditure contribute to the amount of CH (Akben-Selcuk & Altio-k-Yilmaz, 2017).

Table 4**Determination Coefficient**

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	0,905	0,819	0,771	0,03208

Predictor: (Constant), Debt to Equity (X4), Return on Asset (X3), Current Ratio (X1), Benchmark Coal Price (X2)

Conclusion

The results of the analysis conducted using panel data regression found that each of CR, BCP, ROA, and DER did not affect CH at PT Adaro Energy Indonesia Tbk in the period 2018 – 2022. Although all these independent variables can predict the value of CH by 77.1% and simultaneously affect the size of CH, it is estimated that other variables contribute more to the composition of cash held by the company.

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