

**CASH HOLDINGS AND FINANCIAL PERFORMANCE
COMPANIES IN THE BASIC AND CHEMICAL INDUSTRY
OF INDONESIA STOCK MARKET**

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Abstract

The modern business landscape is characterized by dynamic interactions between various financial indicators that influence a company's financial health and performance. This study aims to investigate the impact of growth, liquidity, and profitability on capital reserves. It is an associational quantitative study that utilizes secondary data. The present research adopts an associational quantitative approach, utilizing secondary data from a five-year period spanning from 2016 to 2020. The population of interest comprises basic and chemical industrial enterprises that are publicly listed on the Indonesia Stock Exchange. The study employs a robust combination of literature review and documentation techniques to collect pertinent data, creating a comprehensive foundation for analysis. To rigorously investigate the interplay of growth, liquidity, profitability, and their connection to capital reserves, the study employs advanced panel data regression analysis. The analysis reveals that growth exerts no discernible impact on cash on hand, suggesting that while expansion may drive other financial outcomes, it does not directly affect the immediate availability of capital reserves. Conversely, liquidity emerges as a crucial determinant, exhibiting a positive influence on cash on hand. This underscores the importance of maintaining a robust liquidity position, which enables companies to effectively manage day-to-day financial obligations and seize strategic opportunities. Furthermore, the study establishes a positive correlation between profitability and cash on hand. Companies that exhibit higher profitability are more likely to accumulate substantial capital reserves, reflecting a capacity to generate surplus funds even after accounting for operational expenses.

Keywords: Cash Holding, Growth, Liquidity, Profitability

1. INTRODUCTION

In recent years, the Indonesian economy has experienced both growth and decline, as shown by the data for Gross Domestic Product (GDP) growth from 2014 to 2020. According to data from the Central Statistics Agency (BPS), Indonesia's economy grew from 2016 to 2018, then encountered a slight decline in 2019, and fell to -2.07% in 2020. The sharp decline in the Indonesian economy in 2020 was a consequence of the Covid 19 pandemic, which was not foreseen and caused a global economic downturn in nearly all nations. The global economic turmoil caused by the US-China trade war, geopolitical tensions in the Middle East, and unstable commodity prices led to Indonesia's economic decline in 2019.

The corporate sectors most susceptible to fluctuating economic conditions are the basic and chemical industrial companies listed on the Indonesia Stock Exchange. The company's activities are intrinsically linked to transactional and operational tasks that require the availability of currency. The company's financial policy for preparing funding

outside of operational costs is cash on hand. The availability of cash is intended as a precautionary measure in the event of unforeseen circumstances, and can also be used for company investment funds.

According to the trade-off theory, in order to achieve optimal currency holdings, companies must ensure that the marginal value of benefit is greater than the marginal value of cost (Ogundipe et al., 2012). Therefore, the company must be aware of its capital structure. Another theory, the ascending order theory, explains that there is a sequence or hierarchy for companies to provide cash, beginning with internal funds and ending with external funds. According to Najema & Asma (2019), when internal funding sources are insufficient, managers will issue debt, and if that is insufficient, they will use company equity as a last resort. This concept focuses on the sources of financing for company activities. Therefore, cash reserves play an important function in the organization. This research seeks to demonstrate the factors influencing cash holdings by analyzing the impact of growth, liquidity, and profitability on cash holdings. The research intends to explore the relationship between the level of cash holdings and the financial performance of companies in the basic and chemical industry in the Indonesian market. The study may aim to understand if there is any correlation between higher cash reserves and better financial performance or if certain patterns emerge within this industry.

2. LITERATURE REVIEW

2.1. Trade-Off Hypothesis

Miller & Modigliani (1963) trade-off theory explains how much debt and equity a company needs to achieve a balance between costs and profits. Typically, the trade-off theory is used to describe the company's motivations when engaging in debt transactions and to explain the motivations behind the company's cash decisions, in this instance its cash holding.

2.2. The Pecking Order Hypothesis

This theory explains, based on Myers & Majluf (1984), that there is a sequence or hierarchy of funding sources that determines corporate funding decisions. According to this theory, when companies must incur costs to finance company investments, they tend to use internal funding as opposed to external funding, such as debt and equity. The funding of a business is determined by the order of risk preference.

2.3. Cash Holding

In order to conduct transactional and operational activities, the company requires a secure quantity of cash. In comparison to the organization's other assets, cash is the most liquid, so the time required to use cash will be shorter. According to Gill & Shah (2012), cash holding is defined as cash contained in the organization or available being committed in tangible assets and can be distributed as dividends to investors. There are four motivations that encourage business to hold cash: transactional, precautionary measures, taxes, and agency motives.

2.4. Growth

Growth refers to the ability to develop or expand a company in relation to future investment opportunities that have the potential to increase company profits or profits. When viewed from the perspective of investors, a developing company indicates that there are profitable aspects of the business, resulting in higher returns on investments (Alicia et al., 2020).

2.5. Liquidity

According to Hery (2015), liquidity is the capacity of a business to meet its short-term obligations in the near future. Therefore, if the company can meet its short-term obligations, this indicates that the company is liquid. According to Van Horne and (Van Horne & Wachowicz Jr, 2012), liquidity is the calculations used to determine how well a company meets its short-term obligations.

2.6. Profitability

According to Kasmir et al. (2011), The profitability ratio measures a company's profitability. Profitability can be determined through a variety of appropriate calculation methods, including the use of financial ratios. The greater the company's profitability, the higher the expected rate of return. Therefore, the company's value will increase.

2.7. Impact of Development on Cash Holdings

Between retained earnings and investment, cash is utilized as a buffer. Therefore, if a high company receives Growth Opportunities, the company will maximize its retained earnings in cash (holding cash for investment), thereby increasing its cash holdings. According to previous (Jebran et al., 2019; Jinkar, 2013; Ozkan & Ozkan, 2004), growth opportunities have a positive impact on cash reserves. Based on the research findings of the aforementioned reference journals, the hypothesis is:

H1: Growth has a positive impact on cash holding.

2.8. Impact of Liquidity on Cash Holding

A company's liquidity level plays an essential role in determining its financial health. If the company lacks sufficient funds, the likelihood of it experiencing financial difficulties increases. In preparation for meeting its obligations, the company decided to hold more currency. Therefore, the liquidity level of the company has a positive effect on cash holding. This viewpoint is persistent with the findings of Musarat & Ullah (2015) study, which describes liquidity as having a considerable positive impact on cash holdings. According to the results of the above research published in scholarly journals, so:

H2: Liquidity positively impacts cash holding.

2.9. Profitability's impact on Cash Holding

Profitability is one of the indicators of a company's ability to assure its long-term survival. The greater a company's profitability, the more valuable it is, the more assured its survival. Based on the findings of Shabbir et al. (2016), profitability has a significant

positive influence on cash holdings because profitability increases the amount of money flowing into the business. According to the above research published in scholarly journals, so:

H3: Profitability has a positive influence on cash holding.

3. RESEARCH METHODS

3.1. Population and Sample Research

Our research focuses on fundamental and chemical industrial firms listed on the Indonesia Stock Exchange between 2016 and 2020. This study employed a technique called purposive sampling, which is used to determine a sample based on specific criteria.

3.2. Data source

This study employs secondary data types, in which the researcher does not collect data directly from the research object. External quantitative data derived from the annual reports of Basic and Chemical Industry companies accessed via the website www.idx.co.id were used as the data source for this study.

3.3. Definitions of Conceptual and Operational Terms

3.3.1. Cash Holding

Based on Gill & Shah (2012), cash holding refers to a company's cash in its custody or on hand, which is utilized for investment tangible assets and can also be distributed to shareholders in the form of dividends.

This can be determined by dividing the ratio of cash and cash equivalents by total assets (Ogundipe et al., 2012).

$$\text{Cash Holding} = \frac{\text{cash}}{\text{total asset}} \times 100\%$$

3.3.2. Growth

William & Fauzi (2013) define growth as a growth opportunity as a combination of potential future investment opportunities and real assets owned by a company.

A growth opportunity is an example of growth opportunities that demonstrate an annual increase (growth) in company assets. According to Zuhlilmi (2015), growth opportunities are calculated by subtracting the total assets in year i from the total assets in the previous year and then comparing the results to the total assets in year i , or as follows:

$$\text{Growth} = \frac{\text{total asset year } i + \text{total asset year } i - 1}{\text{total asset year } i}$$

3.3.3. Liquidity

A company's liquidity level plays an essential role in determining its financial health. To fulfill its short-term obligations, the company must set aside sufficient funds so that its obligations can be met without selling its assets.

Calculated liquidity using the current ratio. The current ratio is used to determine a company's ability to satisfy its short-term obligations (Hanafi & Halim, 2016). In addition, the calculation compares current assets and short-term liabilities and can be expressed using the following formula:

$$\text{Current Ratio} = \frac{\text{current asset}}{\text{current liability}} \times 100\%$$

3.3.4. Profitability

Based on Weygandt et al. (2015), profitability is an indication of a company's ability to get profits through operational activities during a given period. Profitability is long-term survival indicator of a company's viability.

Profitability derived from Return on Assets (ROA) formula. According to Brigham (2010), ROA is calculated by comparing net income to total assets, or it can be expressed using the following formula:

$$\text{Return on Asset} = \frac{\text{net income}}{\text{total asset}} \times 100\%$$

3.4. Data analysis methodology

3.4.1. Descriptive Statistics

According to Sugiyono (2017), analysis descriptive is a statistical method for presenting data that is frequently used to analyze data by describing the collected data without drawing any broad conclusions regarding the formulation of hypotheses. Minimum value, maximum value, average value, and standard deviation value for each variable in this research constitute the data description.

3.4.2. Panel Data Regression Analysis

Due to the time series and cross-sectional nature of the data collected for this study, panel data regression analysis is the research method employed. (Basuki & Prawoto, 2016) explains that panel data regression is an approach to regression analysis that incorporates time series and cross-sectional data. The models considered for this study are:

$$CH = \beta_0 + \beta_1 GR_{it} + \beta_2 LQ_{it} + \beta_3 PR_{it} + \varepsilon_{it}$$

a. Normality test

The normality test uses the standardized residual values to determine whether or not the data is normally distributed (Suliyanto, 2011:69). If the standardized residual values are predominantly near to the values of the mean, then the data are said to be normally distributed.

b. Multicollinearity Test

The multicollinearity test is used to determine whether the regression model has a high (perfect) correlation between variables (Suliyanto, 2011:81). In this study, the test for multicollinearity was conducted by analyzing the correlation matrix between the independent variables.

c. Heteroscedasticity Test

Based on Suliyanto (2011:95), the heteroscedasticity test uses to determine if the variance of residuals from one observation to the next is unequal in the regression model. In this investigation, the heteroscedasticity test was conducted using the Glejser method. The Glejser test is the most commonly used instrument to check the presence or absence of heteroscedasticity in research.

d. Autocorrelation Test

The purpose of the autocorrelation test is to determine whether or not a correlation exists between members of a series of observational data that is explained by time series (time) and cross section (space). In this investigation, the autocorrelation test was conducted using the Durbin Watson method. The Durbin Watson method is a statistical test for determining whether the estimated empirical model exhibits autocorrelation.

3.4.3. Testing of hypotheses

a. Adjusted R^2 (Coefficient of Determination)

Based on Ghazali (2011:97), the coefficient of determination measures the regression model's capacity to explain the dependent variable. The higher the value of the coefficient of determination, the higher the capacity of the independent variables to explain variations in the dependent variable's changes.

b. Partial Test (t-Test)

The objective of the partial value or T test is to determine whether or not each independent variable has a significant impact on the dependent variable. If the calculated t value is greater than the value in the t table, it can be concluded that the variable has an effect (Suliyanto, 2011:95).

4. RESULTS AND DISCUSSION

4.1. Research Result

4.1.1. Analysis of Descriptive Statistic

Table 1. Analysis of Descriptive Statistic

Variable	N	Min	Max	Means	Std Dev
CH	150	0.205123	46.97185	9.66698	9.125079
LQ	150	70.40903	1047,979	217.5948	156.0363
PR	150	0.117039	16.55762	5.196371	3.703335
GR	150	-48.9116	55.23756	6.890035	14.73203

4.1.2. Panel Data Regression Estimation Model

Prior to estimating the model for panel data regression, the optimal estimation model is determined. According to Widarjono (2013), there are three estimation methods for models: the Common Effect Model, the Fixed Effect Model, and the Random Effect Model.

Table 2. Common Effect Models

Variables	Coefficient	Std. Error	t-Statistics	Prob.
CH	0.929369	0.137256	6.771069	0.0000
LQ	0.002897	0.000507	5.710164	0.0000
PR	0.050441	0.021750	2.319089	0.0218
GR	-0.000108	0.004992	-0.021698	0.9827

Table 3. Fixed Effect Models

Variables	Coefficient	Std. Error	t-Statistics	Prob.
CH	0.775041	0.153482	5.049733	0.0000
LQ	0.003659	0.000577	6.339334	0.0000
PR	0.051603	0.023578	2.188665	0.0305
GR	-0.002639	0.004483	-0.588549	0.5572

Chow test results show that with a profitability rate of $0.0000 < 0.05$, it can be concluded that the chosen model in the Chow test is the fixed effect.

Table 4. Random Effect Models

Variables	Coefficient	Std. Error	t-Statistics	Prob.
CH	0.842039	0.176617	4.767593	0.0000
LQ	0.003405	0.000524	6.492285	0.0000
PR	0.050188	0.021878	2.294001	0.0232
GR	-0.002027	0.004397	-0.460934	0.6455

On the basis of the Hausman and Lagrange Multiplier tests, it is possible to conclude that the Random Effect Model is more suitable for estimating panel data regression.

4.1.3. Panel Data Regression Analysis

This study used the analysis of panel data regression method after determining the optimal model for estimating panel data. Panel data regression is a technique for integrating time-series data and cross-section data analysis. To examine the impact of growth, liquidity, and profitability on capital holdings, the random effect model is employed. So as to derive the following results from the panel data regression equation:

$$CH = 0.842039 - 0.002027GR + 0.003405 LQ + 0.050188 PR + \varepsilon_{it}$$

4.1.4. Testing of hypotheses

a. Adjusted R^2 (Coefficient of Determination)

The test for the coefficient of determination using the random effect model yielded a coefficient of determination (Adjusted R-squared) of 0.301788, or 30.17 percent. According to the coefficient of determination, growth, liquidity, and profitability contribute 30.17 percent to cash on hand, while the remaining 69.83 percent is influenced by factors not examined in this study.

b. Testing of hypotheses

1) Growth

The study's null hypothesis is that growth has no influence on cash reserves. According to table 4, the significance value of the variable growth is $0.6455 > 0.05$, indicating that growth has no significant effect on cash holdings. Consequently, it was denied.

2) Liquidity

In this study's second hypothesis, liquidity has a positive influence on cash holdings. According to table 4, the significance value of the liquidity variable is $0.0000 < 0.05$, indicating that liquidity has a positive significance on cash possession. Consequently, accepted.

3) Profitability

The profitability hypothesis in this analysis has a positive effect on cash reserves. According to table 4, the significance value of the profitability variable is $0.0232 < 0.05$, so profitability has a significant positive effect on cash holding. Consequently, accepted.

4.2. Discussion

4.2.1. The effect of Growth on Cash Holding

The test results of this study indicate that growth has no effect on cash reserves. A company's capacity to capitalize on investment opportunities to increase its market value constitutes its growth. High or low growth rates have no bearing on the determination of a company's cash holdings level. This study's findings contradict the findings of Alfira et al. (2021), Jebran et al. (2019) and Sumartha & Tjakrawala (2020) who found a positive relationship between growth and cash on hand.

4.2.2. The effect of Liquidity on Cash Holding

Based on the results of the analysis, liquidity has a significant positive effect on cash on hand. In order to sustain cash reserves, it is important to keep the company's liquidity level. The greater a company's quantity of liquidity, the greater its cash on hand. The company's liquidity must be sufficient, not excessive, as excessive liquidity indicates that the company has too many low-return liquid assets. Therefore, shareholders do not want the firm to invest excessively in liquid assets. These results are consistent with the findings of Elnathan & Susanto (2020) that liquidity has a significant positive impact on cash holdings, but contradict the findings of Al-Najjar (2013) that liquidity has a negative effect on cash holdings.

4.2.3. The effect of Profitability on Cash Holding

The test results of this study indicate that profitability has a substantial positive impact on cash on hand. The higher a business' profitability ratio, the greater its ability to generate profits. This result is consistent with the findings of Shabbir et al. (2016) on non-financial firms, which states that there is a positive relationship between profitability and capital holdings, but these findings contradict those of Chistian & Fauziah (2017) regarding non-financial firms. which indicates a negative relationship between profitability and capital on hand.

5. CONCLUSION

The conclusion of this study indicates that the company's growth rate does not significantly impact its cash holdings level. However, a higher liquidity level is positively correlated with greater cash reserves. Moreover, companies with higher profitability demonstrate a greater ability to generate profits, leading to larger cash reserves.

In light of the study's conclusions, several recommendations can be made to guide the company's financial practices. First, a strategic focus on optimizing liquidity management is advised, as a positive correlation between liquidity and cash reserves suggests a prudent approach. Second, the company should emphasize strategies to enhance profitability, as greater profitability leads to larger cash reserves. Balancing growth initiatives with maintaining adequate cash reserves is crucial. Regular stress testing and contingency planning are essential to prepare for potential financial challenges. A long-term perspective on financial sustainability, a clear investment and cash allocation strategy, and cross-functional collaboration will further strengthen the company's cash position. When considering external financing, careful evaluation of terms and conditions is warranted. Lastly, fostering a culture of continuous learning and adaptation ensures the company remains agile in navigating evolving financial landscapes.

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