

Determinant of Corporate Cash Holding: Evidence From LQ45 Index Companies on Indonesia Stock Exchange

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Abstract. This study aims to examine the effect of institutional ownership, profitability and firm size on the cash holding of the LQ45 Index Companies on the Indonesia Stock Exchange. The population of this study is the company of LQ 45 Index on the IDX for the period 2015-2017. A total of 210 companies were determined target populations based on certain criteria. This study uses a regression method for panel data, namely by looking at random effects based on the Hausman test results. The results show that institutional ownership, profitability and firm size have a positive effect on cash holding. The findings are beneficial for managers, shareholders, investors, regulatory bodies, and researchers for developing appropriate policies.

Keywords: Cash holding, Institutional ownership, Profitability, Firm Size, LQ45

1. Introduction

Indonesia is a country that is still very dependent on the flow of funds from foreign investors so that when the global financial crisis in 2008, automatically stopped investment funds from foreign investors. As a result, many companies are experiencing a liquidity crisis. To avoid this, it is very important for companies to determine the optimal cash holding level that must be owned by the company. In strategy formation, holding company cash is an important factor for financial management, which is not only related to operations and company enhancement, but also related to corporate governance and institutional environment (Ali, Ullah, & Ullah, 2016)[1]. Another view is expressed by [2] Ferreira and Vilela (2004) that holding cash from companies can reduce the possibility of financial pressure due to unexpected losses. Cash holding is one of the most important policies, but it is very complicated to deal with the company's financial strategy. Cash holding is used as a buffer between retained earnings and investment needs [3] (Loncan and Caldeira, 2014). Managers as part of companies prefer to maintain cash holding for their own interests rather than increasing payments to shareholders when the company has a bad investment opportunity. Profitability is also expected to affect cash holding. If it is associated with the Pecking Order Theory, an increase in profitability will cause the cash holding to increase because the company will use its profitability to increase liquidity. therefore, companies tend to have more cash holding [4] (Opler, et al, 1999). Firm size is also estimated to affect cash holding. Large companies have access to good capital markets at lower costs compared to small companies that face limitations in funding [5] (Kim, Kim and Wood, 2011). Larger companies are

assumed to be more successful so they must be able to collect more money, after controlling investment spending [6] (Borici and Kruja, 2016).

2. Methodology

The analytical method used in this study is panel data regression analysis and the data is processed using the EVIEWS version 10. To test panel data there are two regression models used known as the common effect model and the fixed effect model. The Chow test is carried out to select the most suitable model between common effects and fixed effects. Furthermore, the Hausman test is used to select the most suitable model between the fixed effect model and the random effect model. The procedure for the two tests is as follows:

a) Chow Test

H_0 : the models follow common effect. H_1 : model follow fixed effect.

Decision: Decline H_0 if value of Probability $< \alpha$. Conclusion: If H_0 rejected then, fixed effect models better than common effect models.

b) Hausman Test

H_0 : models follow random effect. H_1 : models follow fixed effect.

Decision: Decline H_0 if value of Probability $< \alpha$. Conclusion: If H_0 rejected then fixed effect models better than random effect models.

The panel data regression equation model in this study can be described as follows:

$$CH_{it} = \alpha + \beta_1 KI_{it} + \beta_2 ROA_{it} + \beta_3 SIZE_{it} + e_{it} \quad (1)$$

Information:

CH_{it} = The indicator used to measure cash holding

α = Constanta

$\beta_1, \beta_2, \beta_3$ = Regression coefficient

KI_{it} = The indicator used to measure institutional ownership of i company for year t

ROA_{it} = The indicator used to measure profitability of i company for year t

$SIZE_{it}$ = The indicator used to measure firm size of i company for year t

e = *epsilon (error term)*

In this study testing hypotheses used include testing regression coefficients together and partial regression coefficients. The research hypothesis will be accepted if β_i ($i = 1, 2, 3$) = 0: H_0 accepted (H_{a1} decline). If there is at least one β_i ($i = 1, 2, 3$) $\neq 0$: H_0 decline (H_{a1} accepted). H_0 not decline (H_{a1} decline) meaning that the independent variables together do not affect the dependent variable, whereas H_0 decline (H_{a1} accepted) means that the independent variables jointly influence the dependent variable.

Table 1. PICOC Criteria

Population	LQ 45 Index Company
Intervention	-
Comparison	a combination of cross-sectional studies with longitudinal studies (time series)
Outcomes	Answer the research hypothesis
Context	Research in company index by LQ 45 on Indonesia Stock Exchange

Table 2. Research Question (RQ)

ID	Research Question	Motivation
RQ1	Does the institutional ownership, profitability, and firm size jointly effect on corporate cash holding of LQ45 Index on the Indonesia Stock Exchange.	To examine the effect of institutional ownership, profitability, and firm size on corporate cash holding of LQ 45 Index on the Indonesia Stock Exchange.
RQ2	Does the institutional ownership effect on corporate cash holding of LQ45 Index on the Indonesia Stock Exchange.	To examine the effect of institutional ownership on corporate cash holding of LQ 45 Index on the Indonesia Stock Exchange.
RQ3	Does profitability effect on corporate cash holding of LQ45 Index on the Indonesia Stock Exchange.	To examine the effect of profitability on corporate cash holding of LQ 45 Index on the Indonesia Stock Exchange.
RQ4	Does firm size effect on corporate cash holding of LQ45 Index on the Indonesia Stock Exchange.	To examine the effect of firm size on corporate cash holding of LQ 45 Index on the Indonesia Stock Exchange.

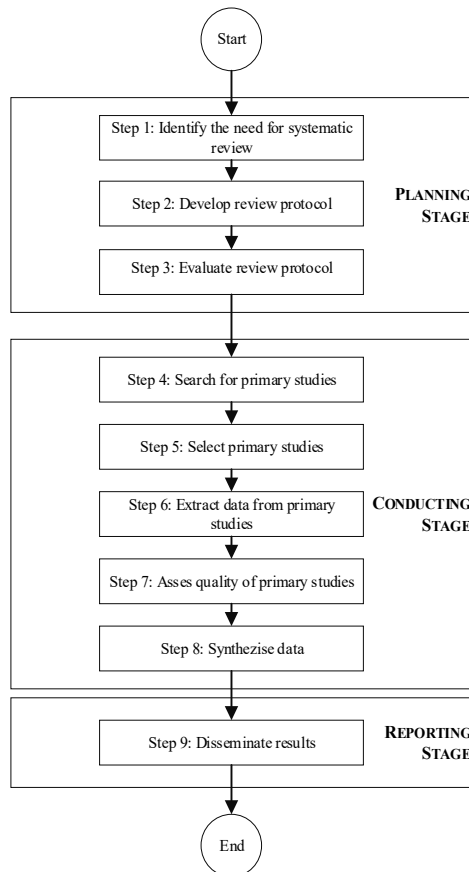


Fig.1. Map Research

This research located at IDX with an analysis unit of companies LQ45 Index from 2015 to 2017. The time horizon of the study is a combination of cross-sectional studies with longitudinal (time series). The data used is panel data. The data source used is secondary data in the form of financial statements for 2015-2017. Data collection techniques used are documentation techniques.

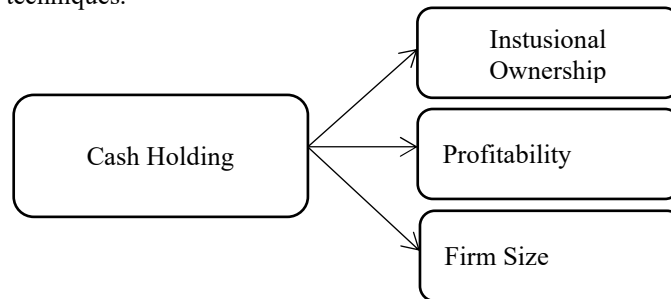


Fig.2. Mind Map Research Question

3. Result and Discussion

The results of hypothesis testing are the answers to the hypothesis in this study. The panel data regression results of the effect of institutional ownership, profitability and firm size on corporate cash holding can be seen in Table 3.

Table 3. Results of Regression Effect of Institutional Ownership, Profitability and Firm Size on Cash Holding of LQ 45 Index on IDX

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
Constanta	-1,442425	0,81377	-1,773378	0,0779
Institusional Ownership	0,022726	0,061098	0,371960	0,7104
Profitability	0,150914	0,123653	1,220467	0,2240
Firm Size	0,114202	0,059446	1,921092	0,0564
<i>R-squared</i>	0,602906			
<i>Adjusted R-Square</i>	0,517485			
<i>F-statistic</i>	7,058024	Durbin-Watson Stat		
<i>Prob (F-statistic)</i>	0,00000			2,606633

Based on Table 1.1 the regression equation can be made as follows:

$$CH_{it} = -1,442425 + 0,022726KI_{it} + 0,150914ROA_{it} + 0,114202SIZE_{it} + e_{it}$$

Based on Table 3 it is known that the constant value is -1.442425. This constant value indicates that if institutional ownership, profitability and size of the company are considered constant, then the amount of cash holding held by the company will decrease by 14.42%.

3.1 Selection of the Model Analysis Approach

Because the analytical method used in this study is panel data regression which can be made based on three approaches namely the fixed coefficient between time models (common effect model), fixed effect models (random effect models), and random effect models, then to determine which model to use in panel data analysis is based on two tests, namely the chow test and the hausman test.

Table 4. Result of Chow Test

<i>Effects Test</i>	<i>Statistic</i>	<i>d.f</i>	<i>Probability</i>
<i>Cross-section F</i>	6,370880	(34,172)	0,000
<i>Cross-section Chi-Square</i>	171,167131	34	0,000

Based on Table 4, it is known that the probability value for cross-section F is 0,000. This value indicates that the probability value is smaller than the value of α (0.05) so that the decision taken is to reject H_0 , meaning that the fixed effect model is better than the common effect model. Because a suitable model is a fixed effect, it is necessary to conduct a Hausman test to see the feasibility of the model between fixed effects or random effects. The Hausman test results can be seen in Table 5.

Table 5. Result of Hausman Test

<i>Effects Test</i>	<i>Chi. Sq. Statistic</i>	<i>Chi-sq.d.f</i>	<i>Probability</i>
<i>Cross-Section Random</i>	6,61334	3	0,0853

Based on Table 5, it is known that the probability value for the random cross-section is 0.0853. This value indicates that the probability value is greater than the value of α (0.05) so that the decision taken is to accept H_0 , meaning that the random effect model is better than the fixed effect model. Because the hausman test results choose the random effect model, then the Lagrangian Multiplier test is needed to determine the best estimate of the model to be used whether or not to use the random effect model.

Table 6. Result of Lagrangian Multiplier Test

<i>test</i>	<i>Both</i>	<i>Probability</i>
Breusch-Pagan	105,0870	0,0000

Based on Table 6 above it is known that the Breussch-Pagan Probability value is 0.0000. These results indicate that if Breusch-Pagan Probability is $0,000 < 0,05$, H_0 is rejected, meaning that the model that fits in this study is the Random Effect Model

3.2 Result of Simultaneous Hypothesis Testing

Based on Table 3, it is known that the regression coefficient value of the influence of each independent variable on the dependent variable is 0.022726, 0.150914 and 0.114202, respectively. This regression coefficient indicates that the regression coefficients of institutional ownership, profitability and firm size for cash holding are not equal to zero ($\beta_i \neq 0$, $i = 1,2,3$), so H_{a1} is accepted which means institutional ownership, profitability and

company size together -sama affects the cash holding company indexed by LQ 45 on the Indonesia Stock Exchange.

3.3 Results of Partial Hypothesis Testing

3.3.1 Effect of Institutional Ownership on Corporate Cash Holding

The value of regression coefficient effect of institutional ownership on cash holding is 0.022726. This value indicates that $\beta_1 \neq 0$ so that Ha2 is accepted and shows that institutional ownership has a positive effect on corporate cash holding. This result is in line with the results of the study [7](Khan, Bibi, & Tanveer, 2016) which shows that institutional ownership has a positive effect on cash holding. When there is an increase in institutional ownership, there will be more company external part that also as owners of the company will oversee the survival of the company and all its activities. The share owner by the institution is referred to as the principal or facilitator who supports the company through the funds provided. The funds are used not only for company activities, but also as salaries and various other forms of compensation given to management in this matter as agents who act as drivers and manage of the company.

3.3.2 Effect of Profitability on Corporate Cash Holding

Value of regression coefficient of the effect of profitability on cash holding is 0,150914. This value indicates that $\beta_2 \neq 0$ so Ha3 is accepted and shows that profitability has a positive effect on the company's cash holding. Every increase in profitability by 1% will increase the cash holding by 0,150914%. The results of this study are in line with the results of the study [8] Shabbir, Hashmi and Chaudary (2016), [1]Ali, Ullah and Ullah (2016), [9] Cheryta, Moeljadi and Indrawati (2017 and [10] Sari and Ardian (2019) which states that profitability has a positive effect on cash holding. High profitability shows the company's ability to generate high profits for the company. Profits will be retained earnings which are used as a buffer for companies and can add cash holding. This is in accordance with the pecking order theory which states that companies prefer to use retained earnings as additional capital compared to obtaining it through issuance of equity which is considered expensive.

3.3.3 Effect of Firm Size on Corporate Cash Holding

Based on the results of testing the third hypothesis, it was found that firm size has a positive effect on the cash holding with a regression coefficient of 0.114202. This positive influence shows that the larger the firm size, the greater the company holds cash (cash holding). The results of this study are in line with the results of the study Kafayat, Rehman and Farooq (2014) [11], [8] Shabbir, Hashmi and Chaudhary (2016) and [1] Ali, Ullah and Ullah (2016) which states that firm size has a significant positive effect on Cash Holding. Firm size influences the level of the company's cash holding because the company will try to maintain the level of its operations and investments Gomes (2012) [12]. Larger companies have the ability to maintain a large amount of cash holding, so that they can be used for reserves when there are unexpected events in the future.

4. Conclusion

Based on the results of testing and analysis that has been done, it can be concluded that institutional ownership, profitability and firm size has a positive effect on corporate cash holding LQ45 index on the Indonesia Stock Exchange.

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