# The Effect of Term Debt Short, Investment in Fixed Assets, Board Size, Networking Capital, Leverage, Firm Size and Return on Assets on Cash Holding in Goods Consumer Sector Companies Listed in Indonesia Stock Exchange

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## Abstract

This study aims to analyze the effect of short-term debt, investment in fixed assets, the board size, net working capital, leverage, firm size, and return on assets toward cash holding for consumer goods companies in Indonesia. Using the purposive sampling technique, only 27 of 45 consumer goods companies listed on the Indonesia Stock Exchange were selected as samples. With the sample data usage period between 2013 and 2016, the total sample used is 108 firms. The data analysis method used is panel data regression with a fixed-effect model using EViews 9. The results of the hypothesis show that short term debt, investment in fixed assets, and return on assets have a significant impact on cash holding with a positive direction relationship. Meanwhile, the other independent variables have an insignificant impact on cash holding.

## Keywords
Board Size, Cash Holding, Firm Size, Investment in Fixed Assets, Leverage

## 1. Introduction
The global economic crisis that hit the world economy began with the failure to pay for housing loans (subprime mortgage default) indirectly affects how companies take a policy. One policy that is of concern now is the policy regarding cash holding. This is because, at that time, high-interest rates made borrowing costs expensive and difficult to obtain. Gill and Shah define cash holding as cash available in the hands and easily available to invest in physical assets and to be distributed to investors in the form of dividends. Because the nature of cash is very easy to use and cash at any time without reducing the real value of the money, then the determination and supervision of the optimal amount of cash that must be owned by the company become an important thing to consider because it will affect the company's liquidity.

The research on the topic of cash holding is taken because companies still have difficulty maintaining liquidity even though the liquidity problem is a serious problem because it will adversely affect the company. The liquidity problem is a problem due to the unavailability of sufficient cash to meet the company's financial obligations, so the determination of cash holding must be considered well like a double-edged knife if the shortage will hamper the company's operations while if excessive cash will not be good for the company because it will only become idle cash it will even eliminate opportunities for companies to obtain benefits such as interest income if the funds owned are invested in securities or projects that will benefit the company. Therefore, researchers are interested in researching the factors that affect cash holding in a company because previous studies still found inconsistencies in the study results. This research refers to previous journals conducted by Sulaman Jamil, Amna Anwar, NailaAfzaal,

Adnan Tariq, and Mohsin Asif in 2016 with the title "Determinants of Corporate Cash Holdings: Empirical Analysis of Pakistani Firms".

This research is a replication of the previous research but by using a different research object, namely consumer goods sector companies listed on the Indonesia Stock Exchange from the period 2013 to 2016 by using the variable short-term debt, investment in fixed assets, the board size, net working capital, leverage, firm size, and return on assets. The reason for this research uses the consumer goods sector or the consumer goods industry sector because recently, a well-known herbal medicine company, PT. XYZ, in 2017, experienced liquidity problems that caused the company to become bankrupt by its creditors due to its inability to pay its debts of 89 billion. In addition, based on cash holding data processed from financial statements, it can be seen that in 2015 there was an average increase in cash holding of 1.38%, from 16.85% in 2014 to 18.23% in 2015. Although there was an average decline in cash holding in the previous year, in 2015, consumer goods companies increased their cash holding again in 2015. This indicates that the consumer goods sector companies are increasingly aware of the important role of cash for the company. The consumer goods sector is a sector that produces goods of daily necessities, so it requires smooth cash flow to finance its production needs. This sector is also considered a potential sector because the sector is expected to continue to grow in line with the increasing purchasing power of Indonesian consumers.

## 2. Literature Review

Jamil, Anwar, Afzaal, Tariq, and Asif conducted a study entitled "Determinants of corporate cash holdings: an empirical analysis of Pakistani firms" to investigate the factors that influence cash holding in non-financial companies in Pakistan. The sample used was 50 companies listed on the Karachi Stock Exchange for 2012-2014. The independent variable used consisted of debt structure, investment, the board size, net working capital, leverage, firm size, and return on assets using the panel data regression method with the ordinary least square approach. The results show that investment, net working capital, firm size, and board size significantly influence cash holding. In contrast, debt structure, leverage, and return on assets do not significantly influence cash holding.

Chireka and Fakoya conducted a study entitled "The determinants of corporate cash holdings levels: evidence from selected South African retail firms" to identify the factors affecting cash holding in 17 retail companies listed on the Johannesburg Stock Exchange from the period 2000 to 2015 in the African country. The independent variables used are firm size, leverage, investment opportunities, liquid asset substitutes, capital expenditure, dividend payments, cash flow and cash flow volatility using panel data regression analysis methods. The results show that dividend payments, cash flow volatility, liquid asset substitutes, and capital expenditure significantly influence cash holding. In contrast, firm size, leverage, investment opportunities, and cash flow do not significantly influence cash holding.

Christian and Fauziah conducted a study titled "Factors of withholding funds" to identify the factors that influence cash holding in Indonesia. The sample used was 218 non-financial companies listed on the Indonesia Stock Exchange from 2010 to 2014. The independent variables used are firm size, market to book ratio, net working capital, leverage, cash flow, return on assets, investment in fixed assets, dividends and board size using panel data regression analysis methods. The results show that market to book ratio, cash flow, board size, dividend, firm size and return on assets significantly influence cash holding. In contrast, leverage, net working capital, and investment in fixed assets do not significantly influence cash holding.

Borici and Kruja conducted a study entitled "Determinants of Firm's Cash Holding: Evidence from Shkodra Region, Albania, " which investigates the factors that influence cash holding in non-financial companies in the Shkodra region. The sample used was 30 non-financial companies in the Skhodra area from 2013 to 2014. The independent variables used to consist of firm size, cash flow, leverage, and networking capital using pooled ordinary least square regression analysis. The results show that firm size, leverage, and networking capital significantly influence cash holding with a significance level of 1%. In comparison, cash flow significantly influences cash holding with a significance level of 5%.

Shabbir, Hashmi, and Chaudhary conducted a study entitled "Determinants of corporate cash holdings in Pakistan" to investigate factors influencing cash holding in Pakistan. The sample used was 150 non-financial companies listed on the Karachi Stock Exchange for 2004-2012. The independent variables used to consist of leverage, firm size,

profitability, liquidity, growth opportunity, cash flow, dividends, and debt maturity. The results show that all independent variables significantly influence cash holding except the dividend variable.

Hapsari conducted a study entitled "Factors affecting the amount of cash holding in a company" to examine the influence of cash holding factors in the State-Owned Enterprises period 2009-2013. The samples used were 11 BUMN companies listed on the Indonesia Stock Exchange from 2009 to 2013. The independent variables used consisted of firm size, cash flow, net working capital, leverage, capital expenditure, growth opportunity, return on assets, and dividends. The results show that net working capital and return on assets significantly influence cash holding while other variables do not significantly influence cash holding.

Khalil and Aliconducted a study entitled "The effect of family ownership on cash holdings of the firm (Karachi Stock Exchange)" to determine the effect of family control on cash holding. The sample used in the study was 100 non-financial companies registered in Pakistan from the 2008 to 2013 period. The independent variables used to consist of family ownership, the board size, net working capital, and firm size using panel data regression (fixed-effect model). The results show that family ownership and firm size variables significantly influence cash holding, whereas board size and networking capital do not significantly influence cash holding.

Syafrizaliadhi and Arfiantoconducted a study entitled "Factors affecting the behaviour of cash holdings in large and small companies". The sample used in the study was 130 manufacturing sector companies listed on the Indonesia Stock Exchange in the 2011-2012 period. The independent variables used are leverage, diversified firms, dividend payments, investment opportunities, capital expenditure, bank involvement, and size using multiple regression analysis with the ordinary least square approach. The results show that leverage, diversified firms, investment opportunities, bank involvement, and size significantly influence cash holding, while capital expenditure and dividend payments do not significantly influence cash holding.

Dianah, Basri, and Arfan conducted a study entitled "Effect of growth opportunities, networking capital, and financial leverage on cash holding on manufacturing companies on the Indonesia Stock Exchange", which aims to examine the effect of growth opportunities, networking capital and financial leverage both partially and jointly with cash holding. The independent variable used consists of growth opportunities, networking capital, and leverage using the unbalanced panel data method. The results show that growth opportunities, networking capital, and leverage significantly influence cash holding.

Hemmati, Rezaei, and Anaraki conducted a study entitled "Investigating the financial determinants of corporate cash holdings in the Tehran Stock Exchange" to investigate the financial factors that affect cash holding in the state of Tehran. The sample used was 121 companies listed on the Tehran Stock Exchange from 2003 to 2011. The independent variables used are leverage, dividends, ROE, asset liquidity, firm size, and free float stock by using multiple pooled data regression. The results show that leverage, ROE, liquidity, firm size, and free float significantly influence cash holding, while dividends do not significantly influence cash holding.

Al-Najjar conducted a study entitled "The financial determinants of corporate cash holdings: evidence from some emerging markets". The sample used was 1992 non-financial companies in Brazil, Russia, India, China, United States, and United Kingdom from 2002 to 2008. The variables used to consist of leverage, dividend payment, profitability, liquidity, and firm size using cross-sectional time-series regression analysis. The results show that leverage, dividend payments, liquidity, profitability, and firm size significantly influence cash holding.

Ogundipe, Ogundipe, and Ajao conducted a study entitled "Cash holding and firm characteristics: evidence from the Nigerian Emerging Market" to prove the relationship between cash holding and company characteristics. The sample used was 54 non-financial companies listed on the Nigerian Stock Exchange from 1995 to 2010. The variables used are investment opportunity, size, cash flow, networking capital, leverage, return on assets and investment in fixed assets using multiple regression methods. The results show that the variable cash flow, leverage, return on assets, net working capital and investment in fixed assets significantly influence cash holding. In contrast, investment opportunity and firm size do not significantly influence cash holding.

Gill and Shah conducted a study entitled "Determinants of corporate cash holding: evidence from Canada", which investigates the factors that influence cash holding in the Canadian state from 2008 to 2010. The sample used was 166 non-financial companies in Canada listed on the Toronto Stock Exchange. The independent variables used are the market to book ratio, cash flow, networking capital, leverage, firm size, the board size, CEO duality, and dividends using ordinary least square regression analysis. The results show that market to book ratio, cash flow, networking capital, leverage, firm size, the board size, and CEO duality significantly affect cash holding. At the same time, dividends do not significantly influence cash holding.

Islam conducted a study titled "Manufacturing firms' cash holding determinants: evidence from Bangladesh", which aims to determine what variables are very instrumental in determining cash holding in the country of Bangladesh. The sample used was 54 manufacturing companies listed on the Dhaka Stock Exchange with five years of research from 2006 to 2010. The independent variables used consisted of current assets, operating income, cash flow, volatility of cash flow, size, short term debt, total debt, leverage, market to book ratio, intangible assets, Tobin's Q, tangibility ratio, net cash, and networking capital using panel data regression with the ordinary least square approach. The results show that current assets, operating income, cash flow, size, short term debt, total debt, leverage, market to book ratio, intangible assets, tangibility ratio, and net cash have a significant effect on cash holding, whereas volatility of cash flow, Tobin's Q, and networking capital does not significantly influence on cash holding.

Drobetz and Grüninger conducted a study entitled "Corporate cash holdings: evidence from Switzerland" to investigate the factors affecting cash holding in 156 non-financial companies listed on the Swiss Performance Index in Switzerland in the 1995-2004 period. The independent variable used consists of asset tangibility, firm size, dividend payment, operating cash flow, board size, investment opportunities, leverage, and profitability. The results show that asset tangibility, firm size, dividend payments, and operating cash flow significantly influence cash holding. In contrast, the board size, investment opportunities, leverage, and profitability do not significantly influence cash holding.

Ferreira and Vilela conducted a study entitled "Why do firms hold cash? Evidence from EMU countries" to investigate the factors affecting cash holding in listed EMU companies from the 1987 to 2000 period using three regression methods. The difference is the Fama and MacBeth methodology, pooled time-series cross-sectional regression and cross-sectional regression. The countries sampled for the study consisted of Germany, France, the Netherlands, Italy, Spain, Finland, Belgium, Austria, Portugal, Ireland, Greece, and Luxembourg. The independent variable used consists of investment opportunity, net working capital, leverage, size, bank debt, dividends, cash flow volatility, cash flow, and debt maturity. The results show that investment opportunity, cash flow, networking capital, leverage, size, and bank debt significantly influence cash holding, while other variables do not significantly influence cash holding.

As for the formulation of the problems that form the basis of the preparation of this research are:
1. Does Short Term Debt significantly influence on Cash Holding in the company?
2. Does Investment in Fixed Assets significantly influence on Cash Holding in the company?
3. Does the Board Size significantly influence on Cash Holding in the company?
4. Does Net Working Capital significantly influence on Cash Holding in the company?
5. Does Leverage significantly influence on Cash Holding in the company?
6. Does Firm Size significantly influence on Cash Holding in the company?
7. Does Return on Assets significantly influence on Cash Holding in the company?

This research aims to analyze the effect of short-term debt, investment in fixed assets, the board size, net working capital, leverage, firm size, and return on assets on cash holding in the company.

## 3. Methods
### 3.1 Research Characteristics
The characteristics of this research are as follows:
1. The type of data used is panel data.
2. This type of research is hypothesis testing.
3. This research was conducted by quantitative methods.
4. This research is a causative study that aims to determine the relationship and the influence of independent variables on the dependent variable.
5. The data collection method uses secondary data, namely financial statements obtained from the Indonesia Stock Exchange website at www.idx.co.id.

6.     The research analysis unit is a consumer goods sector company listed on the Indonesia Stock Exchange from 2013 to 2016.
7.     The dependent variable in this study is cash holding. In contrast, the independent variables used in this study consist of Short-term debt, Investment in fixed assets, Board size, Net working capital, Leverage, Firm size, and return on assets.

## 3.2 Sample Collection Method

The sampling technique used is the purposive sampling method to get a representative sample considering certain criteria. From the selection results carried out for four years of research, 108 samples were obtained. The sample selection criteria in this study are:

1.     Consumer goods sector companies listed on the Indonesia Stock Exchange from 2013 to 2016.
2.     Have consecutive audited financial statements that have been audited each year ending on December 31 from2013 to 2016.
3.     The financial statements are presented using the rupiah currency.
4.     Does not contain outlier data

## 3.3 Data Analysis Method

The data analysis method used is a panel data regression model with a fixed-effect approach. Because of the Chow test and the Hausman Test results, the probability value is less than 0.05. The panel data regression analysis is used to examine the effect of independent variables, namely short-term debt, investment in fixed assets, the board size, net working capital, leverage, firm size, return on assets to the dependent variable, cash holding in consumer sector companies' goods listed on the Indonesia Stock Exchange for the period 2013-2016.

## 3.4 Operationalization of Variables

Table 1. Operationalization of Variables

| Variables | Variables Definition | Measurement Indicator |
|---|---|---|
| Cash holding (CH) | Cash is available in the hands and easily available to invest in physical assets or to be distributed to investors in the form of dividends. | $CH = \dfrac{Cash\ and\ Cash\ Equivalent}{Book\ value\ of\ Assets\text{-}Cash\ and\ Cash\ Equivalent}$ |
| Short term debt (STD) | Financial obligations of companies whose repayments are made in a short time that is less than one year. | $STD = \dfrac{Short\ Term\ Debt}{Total\ Assets\text{-}Cash\ and\ Cash\ Equivalent}$ |
| Investment in fixed assets (INV_FA) | Capital expenditure in the form of company expenses to obtain a fixed asset. | $INV\_FA = \dfrac{Fixed\ Asset}{Total\ Assets - Cash\ and\ Cash\ Equivalent}$ |
| Board size (BS) | The proportion of leaders in a company chosen by shareholders to represent their interests in managing the company. | $BS = Number\ of\ Board\ of\ Directors\ Members$ |

| *Net working capital* (NWC) | All components in current assets take into account short-term debt as a deduction. | $NWC = \dfrac{Net\ Current\ Asset\text{-}Cash\ and\ Cash\ Equivalent}{Total\ Assets\text{-}Cash\ and\ Cash\ Equivalent}$ |
|---|---|---|
| *Leverage* (LEV) | The company's ability to use assets or funds that have a fixed burden to enlarge the level of income for company owners. | $LEV = \dfrac{Long\ Term\ Debt}{Total\ Assets\text{-}Cash\ and\ Cash\ Equivalent}$ |
| *Firm size* (FS) | Size comparison of the size of the business of an organization. | $FS = natural\ log\ of\ sales$ |
| *Return on assets* (ROA) | The ratio shows the contribution to the use of company assets in creating a net profit. | $ROA = \dfrac{Net\ profit}{Total\ Assets\text{-}Cash\ and\ Cash\ Equivalent}$ |

## 4. Results and Discussion

### 4.1 Normality Test
Based on the histogram normality test results in Figure 1, the Jarque-Bera value is 0.762852, and the Jarque-Bera probability is 0.682887. From the Jarque-Bera probability value obtained, it can be concluded that the data has been normally distributed because the probability value is greater than 0.05 (0.682887>0.05).
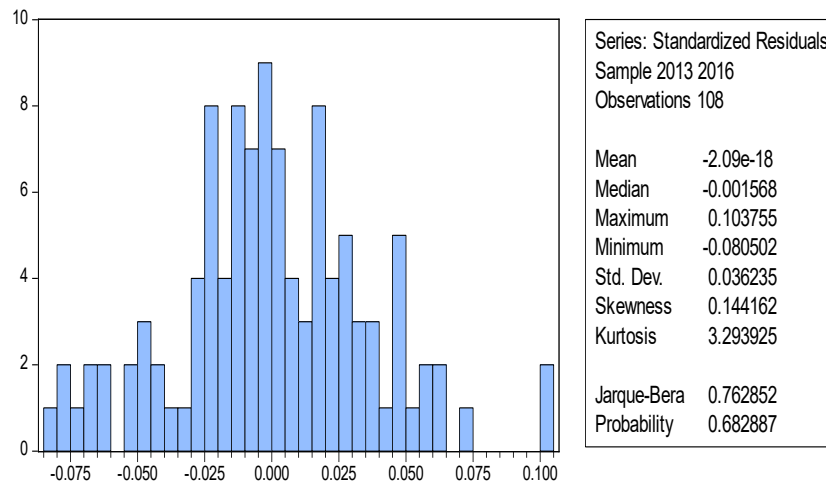


Figure 1. Normality Test Result

## 4.2 Panel Data Regression Analysis

Panel data regression analysis is used to measure the effect of independent variables on the dependent variable. The regression model is expressed using the equation as follows:

$$CH = \beta 0 + \beta 1 STD + \beta 2 INV\_FA + \beta 3 BS + \beta 4 NWC + \beta 5 LEV + \beta 6 FS + \beta 7 ROAi + ei$$

(1)

Information:
CH = Cash Holding
β0 = Constant or coefficient of the regression equation
β1, β2, β3, β4, β5, β6, β7 = Coefficient of change in value
STD = Short Term Debt
INV_FA = Investment in Fixed Assets
BS = Board Size
NWC = Net Working Capital
LEV = Leverage
FS = Firm Size
ROA = Return on Assets
ei = Interference or error variables (errors terms)

Table 2. Results of Panel Data Regression by Using the Fixed Effect Model Approach
Dependent Variable: CH
Method: Panel Least Squares
Date: 05/23/18   Time: 03:14
Sample: 2013 2016
Periods included: 4
Cross-sections included: 27
Total panel (balanced) observations: 108

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 0.412259 | 0.427924 | 0.963395 | 0.3385 |
| STD | 0.257504 | 0.099404 | 2.590476 | 0.0115 |
| INV_FA | 0.348673 | 0.101431 | 3.437554 | 0.0010 |
| BS | 0.013731 | 0.012411 | 1.106383 | 0.2721 |
| NWC | -0.041543 | 0.049552 | -0.838357 | 0.4045 |
| LEV | 0.166105 | 0.118615 | 1.400367 | 0.1656 |
| FS | -0.024167 | 0.015609 | -1.548325 | 0.1258 |
| ROA | 1.249517 | 0.156198 | 7.999570 | 0.0000 |

Effects Specification

Cross-section fixed (dummy variables)

| | | | |
|---|---|---|---|
| R-squared | 0.957755 | Mean dependent var | 0.146182 |
| Adjusted R-squared | 0.938916 | S.D. dependent var | 0.176296 |
| S.E. of regression | 0.043572 | Akaike info criterion | -3.177251 |
| Sum squared resid | 0.140489 | Schwarz criterion | -2.332876 |
| Log likelihood | 205.5715 | Hannan-Quinn criter. | -2.834887 |
| F-statistic | 50.83906 | Durbin-Watson stat | 2.287719 |
| Prob(F-statistic) | 0.000000 | | |

From the results of panel data regression with fixed-effect models obtained the following regression equation:
CH=0.412259+0.257504STD+0.348673INV_FA+0.013731BS-0.041543NWC+0.166105LEV-0.024167FS+1.249517ROA+ei (Table 2)

(2)

Table 3. Conclusion of the results of the t-test

| Independent Variable | Coefficient | *Prob. t-Statistic* | Conclusion |
|---|---|---|---|
| Short term debt | 0.257504 | 0.0115 | Significant and positive influence on cash holding. |
| Investment in fixed assets | 0.348673 | 0.0010 | Significant and positive influence on cash holding. |
| Board size | 0.013731 | 0.2721 | No significant effect on cash holding. |
| Net working capital | -0.041543 | 0.4045 | No significant effect on cash holding. |
| Leverage | 0.166105 | 0.1656 | No significant effect on cash holding. |
| Firm size | -0.024167 | 0.1258 | No significant effect on cash holding. |
| Return on assets | 1.249517 | 0.0000 | Significant and positive influence on cash holding. |

## 4.3 F-Test

F-test is used to determine whether the independent variables simultaneously in this study significantly influence or not the dependent variable. From the results of EViews 9 conducted, it can be concluded that simultaneously short-term debt variable, investment in fixed assets, the board size, net working capital, leverage, firm size and return on assets have a significant effect on cash holding because of the probability value 0.000000<0.05. (Table 3)

## 4.4 Determination Coefficient Test

The coefficient of determination is a proxy used to measure the independent variable's ability to explain the variation of the dependent variable. This can be indicated from the Adjusted R-squared value of 0.938916. From the results of EViews 9 conducted, it can be concluded that the independent variables used in the study could explain the cash holding variable of 93.9%. In comparison, the remaining 6.1% was explained by other variables outside the variables in this study.

## 4.5 Discussion of Research Results

**Short Term Debt significantly effect on Cash Holding**

Short-term debt is debt where the repayment period is less than one year. Short-term debt has a positive direction toward cash holding with a value change coefficient of 0.257504. If the short-term debt variable increases by 1, then cash holding will increase by 0.257504, assuming the other independent variables are constant or constant. Based on the results of tests that have been carried out, it can be concluded that short term debt has a significant influence on cash holding in the consumer goods sector companies listed on the Indonesia Stock Exchange in the 2013-2016 period because of the significant value obtained is less than 0.05 (0.0115 <0.05). A positive influence indicates that a company's dependence on the short-term debt will cause the company to make larger cash reserves as a precautionary motive and pay off the debt when the debt is due. Because if the company is unable to pay off its debts, it will be able to impact liquidity problems.

**Investment in Fixed Assets significantly effect on Cash Holding**

Investment in fixed assets is investments in fixed assets such as land, buildings, machinery, etc., that have an economic life of more than one year. Investment in fixed assets has a positive direction toward cash holding with a coefficient of change in the value of 0.348673. If the variable investment in fixed assets has increased by 1, cash holding will increase by 0.348673, assuming the other independent variables are constant or constant. Based on the results of tests that have been carried out, it can be concluded that investment in fixed assets has a significant influence on cash holding in the consumer goods sector companies listed on the Indonesia Stock Exchange in the

2013-2016 period because of the significant value obtained is less than 0.05 (0.0010 <0.05). A positive influence indicates that the greater investment in fixed assets made by the company will tend to cause the company to create a larger cash reserve in the future to be able to finance costs that may arise from the results of such investments, such as maintenance costs, depreciation costs, construction costs, interest costs if the purchase of fixed assets is financed from debt and so on.

**Board Size not significantly effect on Cash Holding**
The board of directors has a role in determining the direction, policies, and strategies taken by the company. The study results note that the board size has a positive relationship with cash holding with a value change coefficient of 0.013731. However, the effect was not proven significant in the consumer goods sector companies listed on the Indonesia Stock Exchange in the 2013-2016 period because the significance value obtained was greater than 0.05 (0.2721> 0.05). This means that the size of the board size does not affect company policy in determining the size of the cash holding in the future. The insignificance of board size with cash holding is due to the fact that although there are many boards of directors in the company, each director has its responsibilities and generally, the one who controls the cash policy is the president director and also the director of finance. The entitled director will decide on the number of cash reserves in accordance with the proportion of cash needs in the company in the future. Therefore, the size of the board of directors will not significantly affect the cash holding policy because not all board directors play a role in determining cash policy.

**Net Working Capital not significantly effect on Cash Holding**
Networking capital is all current assets owned by a company after deducting its current debt. The study results note that networking capital has a negative relationship with cash holding with a value change coefficient of 0.041543. However, the effect was not proven significant in the consumer goods sector companies listed on the Indonesia Stock Exchange in the 2013-2016 period because the significance value obtained was greater than 0.05 (0.4045> 0.05). This means that the size of the networking capital in the company does not affect the company's policy in determining the size of the cash holding in the future. The insignificance of networking capital with cash holding is caused by the management of the working capital required by each company to vary according to the conditions of the company. And in the consumer goods sector, managing working capital, both positive and negative current assets and current liabilities, will still create the same cash reserves because the consumer goods sector needs to set aside its cash to maintain liquidity. This sector needs smooth cash flow to run production and daily operations properly.

**Leverage not significantly effect on Cash Holding**
Leverage is a proxy for the use of debt in financing company financing. Leverage is used to measure how much a company depends on debt with its assets. The study results note that leverage has a positive direction toward cash holding with a value change coefficient of 0.166105. However, the effect is not proven significant in the consumer goods sector companies listed on the Indonesia Stock Exchange in the 2013-2016 period because the significance value obtained is greater than 0.05 (0.1656> 0.05). This means that the size of the leverage in the company does not affect the company's policy to determine the size of the cash holding in the future. The insignificance of leverage with cash holding is caused by the average consumer goods sector company not using long-term debt in financing companies. This can be indicated from the average leverage value in a fairly small company, which is only 15.16%. The consumer goods sector is a business sector that has a fairly fast cash turnover compared to other sectors because this sector is a sector that produces consumer goods that are needed by the people daily. Therefore, companies are less dependent on long-term debt and prefer short-term debt options as an alternative to financing.

**Firm Size not significantly effect on Cash Holding**
The size of a company can be measured by the size of the sales value in the company. The greater the sales, the greater the size of the company. The results of the study note that the firm size has a negative relationship with cash holding with a value change coefficient of 0.024167. However, the effect was not proven significant in the consumer goods sector companies listed on the Indonesia Stock Exchange in the 2013-2016 period because the significance value obtained was greater than 0.05 (0.1258> 0.05). This means that the company's size does not affect the company's policy in determining the size of the cash holding in the future. The insignificance of firm size with cash holding is because cash is the company's most liquid asset and is most useful for supporting company operations properly. Therefore, sufficient cash is still needed by the company regardless of the size of the company because both small, medium and large companies still need adequate cash to support the daily operational needs of the company.

**Return on Assets significantly effect on Cash Holding**

Return on assets measures the company's ability to utilize its assets effectively and efficiently in increasing net profit for the company. Return on assets has a positive direction toward cash holding with a value change coefficient of 1.249517. If the return on assets variable increases by 1, cash holding will increase by 1.249517, assuming the other independent variables are constant. Based on the results of tests that have been conducted, it can be concluded that return on assets has a significant effect on cash holding in the consumer goods sector companies listed on the Indonesia Stock Exchange in the 2013-2016 period because of the significant value obtained is less than 0.05 (0.0000 <0.05). A positive effect because the greater the profitability of the company, which is indicated by a high return on assets indicates that the company's ability to generate profits is also greater so that the company will be better able to reserve more cash to be able to offset the company's cash flow is also large.

## 5. Conclusion

From the analysis results, it can be concluded that short term debt, investment in fixed assets, and return on assets have a significantly positive effect on cash holding, whereas the board size, net working capital, leverage, and firm size do not significantly influence on cash holding.

The advice that can be given is:

    1.   For companies

From the results of this study, it is expected that companies can pay more attention to the level of liquidity by maintaining optimal cash holding levels. If the cash owned by the company is too large, it is recommended to invest a portion of the cash into securities and profitable projects.

    2.   For further researchers

For researchers interested in researching the same topic, it is recommended to expand the research sample to other sectors both in Indonesia and outside Indonesia so that the results can better explain the factors that influence cash holding more broadly. Further research is also suggested to extend the research period so that the results can better reflect the company's condition in the long run and consider other factors that influence cash holding beyond the variables in this study.

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