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# CASH HOLDING ROLE OF PROPERTY, REAL ESTATE, AND MINING COMPANIES REGISTERED IN INDONESIAN STOCK EXCHANGE 2012-2016

*Amelia Sulistiawati*[1], *Noor laily Fitdiarini*[2]

[1,2]Department of Management, Faculty of Economy and Business, Universitas Airlangga, Surabaya Jl. Airlangga No.4, Airlangga, Gubeng, Surabaya.

***Correspondence Author Email : [2]noorlaily-f@feb.unair.ac.id**

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**Keywords: Cash Holding, Mining, Property & Real Estate, Companies**

## ABSTRACT

**Background**: The property and real estate,also the mining companies have different company growth that mayaffect the cash holding policy.

**Objective**: This study aimed to analyze the cash holding role of property, real estate and mining companies listed in the Stock Exchange during 2012-2016.

**Methods**: This quantitative study examined the cash holding role by means of observing the influence of leverage, dividend payment, profitability, liquidity, and size. Samples were taken by purposive sampling technique through Indonesian Stock Exchange and literature review data. The data were then analyzed statistically.

**Results**: For property and real estate companies, profitability and liquidity had a significant positive effect, while size had a significant negative effect, however, the leverage and dividend payment had a positive yet insignificant effect on the cash holding. In mining companies, the dividend payment and profitability had a significant positive effect, the variable size had a positive yet insignificant effect, while the leverage and liquidity had no significant negative effect. The cash holding rateanalyzed through leverage, dividend payment, profitability, liquidity,and size was 37.1% in property and real estate companies; and 42% in mining companies.

**Conclusion**: Leverage, dividend payment, profitability, liquidity,and size have different effects on property and real estate companies as well as mining companies in cash holding role, but a greater influence was found in mining companies. Mining companies should be careful with the company's cash holding policy regarding these factors in order to manage the cash holding role wisely.

## INTRODUCTION

Cash is the most liquid asset of a company, as well as the lifeblood of any business. Cash is required to maintain company liquidity, in terms of paying labor, buying raw materials, paying interest on debt, etc (Sudana, 2011). The dilemma faced by companies is how much the company needs to hold cash (cash holding) since it constitutes a non-learning asset which can also be used for other beneficial investments. Cash also plays a vital role in this modern world. Companies may hold cash to face unpredictable future contingencies, however, an unwise decision may not allow them to invest in profitable projects (Al Najjar, 2013). Holding too much cash also lead to a lower rate of return than investing in real assets. The free cash flow argument regarding managerial opportunism explains that cash holding leads to money accumulation that is detrimental to shareholders since the level of return, which is the right of shareholders, is below expectation (Jinkar, 2013).

The economic crisis occurred in 1997-1998 and 2008 was more aggravated because many companies did not maintain liquidity. One of the financial-crisis-affected sector that was forcibly stopped was the property and real estate sector because they were heavily dependent on bank debt. The financial crisis had totally changed the viewpoints of large companies in respect of the importance of maintaining liquidity and minimizing liquidity risk by maintaining cash holding rates. For example, the cash to asset ratio of the 500 largest non-financial companies in America which increased to 9.8% (Jinkar, 2013). Based on literature studies, the company's motives for holding cash are transaction motives, speculation motives, guard motives, tax motives, and agency motives. Cash can reduce the possibility of financial distress (Ferreira, Miguel A., 2004).

Every company has different cash holding policy depending on the conditions faced and the underlying motives. Companies assume cash as a strategic weapon that can be used to exploit the future opportunities they anticipate. These opportunities may never be seen but reamain the reason for the company to accumulate cash. The advantage of having a large amount of cash is when the cash becomes a scarce resource and the capital market is difficult to access (Syafrizalliadhi, 2014). For property and real estate, as well as mining companies, most of the assets are invisible, in other words, fixed assets which are difficult to convert into cash immediately.

Companies with more liquid assets can easily convert them into cash if the company holds lower cash (Ozkan, A and Ozkan, 2002; Al Najjar, 2013). This is inversely proportional to the non-liquid assets of the property and real estate also the mining companies, so they need for more cash to be maintained. In addition, the two companies funding are mainlyused long-term debt. The greater the company involved in debt, the greater the need for cash holding that must be maintained to avoid bankruptcy. The property and real estate industry has become booming lately because of the turmoil of tax amnesty, which made this sector more crowded (Naoki, 2012). The property and real estate sector recorded a good economic journey amid the sluggish economy of Indonesia. Whereas, the mining sector tends to be sluggish amid an economic slowdown. Weakening prospects in the mining business due to falling prices of mining commodities along with mining commodity prices in the international market is declining and decreasing export demand and decreasing demand for energy sources.

The level of cash holding in as many as 15 mining companies in Indonesia in 2008-2012 was in line with the increasing sales volume and growth of their assets (Manuaba, Ida Bagus Pradnyana, 2014). Various studies on the factors that determine the level of cash holding have been carried out with varying research variables and objects in different countries and produce different conclusions. Previous research used variables including leverage, dividend payment, profitability, liquidity, and size in influencing the company's cash holding. Capital structure and dividend policy affect cash holdings. There are similarities between developed countries and developing countries on the factors that determine the company's cash holdings. The results of our cross-country model provide evidence that capital structure, dividend policy, and company size are important factors in determining cash holdings. Companies operating in countries with low shareholder protection have more cash (Al Najjar, 2013).

By analyzing the cash holding role, it will control spending through cash in both companies so that cash holding roles can be managed wisely for the future growth of the company. This study aimed to analyze the cash holding role of property and real estate and mining companies that are listed on the Indonesian Stock Exchange in 2012-2016.

## LITERATURE REVIEW

Various studies show different results. Based on the observation of 22 property and real estate companies in 2009 to 2013 conducted in Indonesia, size and cash flow had significant positive effect on cash holding, networking capital,and sales growth had significant negative effect on cash holding, CCC variable had a negative yet not significant effect on cash holding, while the leverage did not have a significant effect on cash holding (Prasetianto, 2014). Other research on 465 companies from various countries in 1998-2003, showing that cash flow, growth opportunities, and size of firms had a positive effect on cash holding, while non-cash liquid assets and leverage had a negative effect on cash holding (Wenyao Li, 2007). In Pakistan, 50 companies in 2012-2014 showed that size, the board size, net working capital, and investment had a significant positive effect on cash holding, while debt structure, leverage and profitability (ROA) had no significant negative effect on cash holding (Jamil, 2016).

Based on the theoretical foundation that has been stated, the hypothesis tested in this study was that Leverage has a negative effect on Cash Holding, Dividend Payments negatively affects Cash Holding, Profitability has a positive effect on Cash Holding, Liquidity has a negative effect on Cash Holding and Size has a negative effect on Cash Holding.

The analysis was done with the regression model equation;

$$CASH_{it} = \alpha + \beta_1 DAR_{it} + \beta_2 DPR_{it} + \beta_3 ROA_{it} + \beta_4 CR_{it} + \beta_5 SIZE_{it} + \varepsilon it$$

with description: CASHit: Cash Holding company i in year t, DARit: Debt to Asset Ratio company i in year t: DPRit: Dividend Payout Ratio company i in year t, ROAit: Return on Assets company i in year t, CRit: Current Ratio of company i in year t, SIZEit: Size of company i in year t, α: β constant (1,2,3,4): Regression coefficient, εit: Factor of disturbance or error of company i in year t, i: Company Sample, t: Period of time (year)

**METHODS**

This study used a quantitative approach, examining the cash holding role through leverage (X1), dividend payment (X2), profitability (X3), Liquidity (X4), and size (X5) on property and real estate and mining companies that have been listed on the Exchange Indonesia Securities (IDX) during 2012-2016. Secondary data of this study were reviewed through IDX (Indonesia Stock Exchange), related company websites, magazine literature, online news. Determination of samples was chosen by purposive sampling method with a note that the company had a full annual financial report (ending on December 31)in the period of 2012-2016. This research was carried out through two main procedures, i.e. reviewing and gathering theories and field assessments.

In this study, there were 6 operational definitions. Cash holding is defined as cash that is in the company or available for investment in physical assets and to be distributed to investors calculated through the cash holding ratio. Leverage is the proportion of funding for companies financed by debt with calculated leverage to debt to asset ratio (DAR). The dividend payment is how much part of net income is paid as dividends to shareholders through the Dividend Payment Ratio (DPR). Profitability is the company’s ability to generate profits using resources owned by the company, such as assets, capital, or sales of the company. The profitability ratio used in this study is the Return on Assets (ROA). Liquidity is the ability of companies to meet short-term obligations with calculated liquidity ratios (current ratio). Size is a company is the size of the company.

Data obtained were analyzed through multiple linear regression through several stages. The first stage was to test the classic assumption through normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test. Normality test was done using Kolmogorov Smirnov, chi-square, or visually through P-Plot. Autocorrelation test was carried out with the Durbin-Watson test (DW test) and multi-collinearity test was done using Variance Inflation Factors (VIF). Heteroscedasticity test was carried out using scatter-plot charts. Once fulfilled, multiple regression analysis and t-test were carried out, and the coefficient of determination was determined. This study had a significance level (α) at the level of 5%. The analysis in this study used multiple linear analysis with the help of SPSS 24 application.

## RESULTS

A total of 35 property and real estate companies, also 30 mining companies were involved in the research. Property and real estate companies showed the average cash holding in 2012-2016 as much as 0.095, the lowest value was 0.004 and the highest value was 0.40. Whereas in mining companies, the average cash holding company that became the sample in 2012-2016 was 0.075, the lowest value was 0.001 and the highest value was 0.309. The results of statistical descriptions are presented in **Table 1**.

**Table 1**. Description of statistics on the property and real estate sector and mining companies

| Variable | N | Minimum | Maksimum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Property and real estate sector | | | | | |
| DAR | 164 | 0.034 | 0.691 | 0.37951 | 0.163597 |
| DPR | 164 | 0.000 | 0.849 | 0.09420 | 0.127538 |
| ROA | 164 | -0.085 | 0.316 | 0.06202 | 0.058805 |
| CR | 164 | 0.241 | 19.067 | 2.60584 | 2.726438 |
| SIZE | 164 | 16.537 | 24.543 | 21.70930 | 1.675763 |
| CASH | 164 | 0.004 | 0.402 | 0.09543 | 0.075882 |
| Mining sector | | | | | |
| DAR | 112 | 0.007 | 0.923 | 0.47171 | 0.210502 |
| DPR | 112 | 0.000 | 1.888 | 0.23717 | 0.421990 |
| ROA | 112 | -0.362 | 0.290 | 0.01046 | 0.096413 |
| CR | 112 | 0.052 | 78.004 | 2.96898 | 8.016156 |
| SIZE | 112 | 18.816 | 25.196 | 22.07673 | 1.570842 |
| CASH | 112 | 0.000 | 0.309 | 0.07530 | 0.066566 |

This study used normal p-plot by visually viewing the distribution of points on the normal p-plot. In property and real estate companies as well as mining companies, the point in the normal p-plot was around the diagonal line and it can be said that the data were normally distributed. The multicollinearity test results showed that the tolerance values of all independent variables were more than 0.1 and the VIF values of all independent variables were less than 10 so that the regression model did not have multicollinearity. The autocorrelation test using the Durbin-Watson test showed that there was no autocorrelation because the DW value was between -4 and <4. In the results of the heteroscedasticity test, the graph plot spread and did not form a regular pattern, so there was no heteroscedasticity.

Based on the data variables that have been measured and classical assumption tests had been carried out, using multiple linear regression models, DAR, DPR, ROA, CR variables had a positive effect on cash holding, while SIZE had a negative effect on cash holding property and real estate companies. ROA, CR, and SIZE had a significant effect on the cash holding of property and real estate companies. The coefficient of determination (R2) of 0.371 indicated that the cash holding was explained by DAR, DPR, ROA, CR, and SIZE of 37.1%, while the remaining 62.9% was explained by other variables not included in this study. Different results were presented by mining companies. DPR, ROA, and SIZE variables had a positive effect on cash holding, while DAR and CR negatively affected cash holding. DPR and ROA had a significant effect on cash holding. The results of the coefficient of determination (R2) of 0.531 indicated that the cash holding was explained by DAR, DPR, ROA, CR, and SIZE of 53.1%, while the remaining 46.9% was explained by other variables not included in this study. The results of the analysis are presented in **Table 2**.

**Table 2**. The results of the analysis of DAR, DPR, ROA, CR, and DIZE influences on Cash Holding

| Independent variable | Unstandardized Coefficient | | Standardized Coefficient | T | Sig | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| Property and real estate companies | | | | | | | |
| Constant | 0.154 | 0.066 | | 2.323 | 0.021 | | |
| DAR | 0.035 | 0.034 | 0.076 | 1.041 | 0.299 | 0.756 | 1.322 |
| DPR | 0.068 | 0.040 | 0.115 | 1.709 | 0.089 | 0.884 | 1.131 |
| ROA | 0.453 | 0.087 | 0.351 | 5.178 | 0.000 | 0.867 | 1.153 |
| CR | 0.017 | 0.002 | 0.594 | 8.325 | 0.000 | 0.782 | 1.279 |
| SIZE | -0.007 | 0.003 | -0.152 | -2.198 | 0.029 | 0.833 | 1.200 |
| R2 | 0.371 | | | | | | |
| F | 18.675 | | | | | | |
| DW | 1.141 | | | | | | |
| Mining companies | | | | | | | |
| Constant | 0.074 | 0.068 | | 1.079 | 0.283 | | |
| DAR | -0.027 | 0.025 | -0.086 | -1.106 | 0.271 | 0.732 | 1.367 |
| DPR | 0.050 | 0.012 | 0.319 | 4.077 | 0.000 | 0.723 | 1.383 |
| ROA | 0.356 | 0.051 | 0.515 | 7.024 | 0.000 | 0.823 | 1.215 |
| CR | -0.001 | 0.001 | -0.102 | -1.379 | 0.171 | 0.803 | 1.246 |
| SIZE | 5.906 E-5 | 0.003 | 0.001 | 0.019 | 0.985 | 0.784 | 1.275 |
| R2 | 0.531 | | | | | | |
| F | 23.967 | | | | | | |
| DW | 1.437 | | | | | | |

## DISCUSSION

Finance leverage is one of the most influential factors in determining a company's growth (Bei and Wijewardana, 2012). In this study, it is known that leverage had a positive and insignificant effect on cash holding property and real estate companies. This possibly due to the property and real estate companies hold large amounts of cash on the basis of motives in the case of future contingencies or unexpected financial difficulties through bank loans or third parties. A previous study stated that company size, leverage, cash flow, cash flow volatility, and investment opportunities influence the behavior of holding cash. The trade-off theory, pecking-order theory, and free cash flow theory are relatable to explain the decline of the cash holding level for the post-crisis period (Duck Hoang Ye, 2018). This changed a lot of views about the importance of holding cash along with the increase of the property and real estate companies' dependency on bank debt. Companies with large leverage need to maintain cash liquidity because banks as creditors will analyze the level of liquidity of the company prior to granting the credit. The larger the company involved in debt, the greater the need for cash to be held that must be maintained to avoid bankruptcy (Naoki, 2012). Economic shocks in 1997-1998 and 2008 affected many property and real estate companies, causing an abrupt stop.

Different results were found in mining companies. Leverage has no significant negative effect on cash holding in mining companies. The higher leverage does not make mining companies increasingly increase cash holding, but increasingly make mining companies hold back a little cash. Negative influences can also be illustrated through the pecking order theory, that companies tend to fund companies with internal funds and little debt so that the cash held is large because debt is cash substitution. The decrease in leverage is due to the high level of profitability (ROA) for investment in mining sector companies that allows companies to finance most of the funding needs with internal funds generated by the company. In addition, the capital structure of mining companies is different from the capital structure of property companies because the investment property companies are very dependent on bank debt.

Basically, leverage decisions are also related to companies affiliated with certain groups which indicate that the ownership structure of a business group creates a virtual (or internal) capital market. Companies affiliated with groups will be able to enjoy extraordinary access to government and foreign loans, as proposed by the theory of market failure and business group policy distortion (Ronny Manos, Victor Murinde, 2007). Finance leverage is related to the emergence of outsourcing that is increasing due to the reduction in the volume of materials and suppliers (Lisa Ellram, 2001). Growth opportunities in corporate investment opportunities are influenced by leverage, debt maturity, and agreements. Protection agreements will increase opportunities for growth, debt maturity, and leverage. Agreements can reduce debt agency costs for companies with high growth (Matthew T. Billett, Tao-Hsien Dolly King, 2007). The negative effects of short-term debt are less than one-sixth of the effect on long-term corporate debt. But short maturities also increase liquidity risk, which negatively affects leverage (Shane A. Johnson, 2003).

Dividend payment has a positive and insignificant effect on cash holding property and real estate companies but has a significant positive effect on the cash holding of mining companies. This means that companies that pay dividends to shareholders, the cash holding held will be even greater. Companies need enough cash to pay dividends in the future and need to hold cash with precautionary motives. When a company has determined to dare to pay a certain nominal amount, the company will experience a tendency to maintain payments within that range for the following years. It was proven that 13 out of 35 samples of property & real estate companies and 10 out of 30 samples of mining companies paid dividends in succession during the 2012-2016 period. The aim of the company to hold cash to pay dividends in the future is to create a good impression in the eyes of investors by providing a stable dividend compared to giving a large dividend and then giving a negative payout ratio in the following years. The company has a lot of profit reserves that have been used both to be reinvested and distributed in the form of dividends without having to change the proportion of dividends for shareholders, most of whom are managerial shareholders (Maskiyah, 2013). So far, the size of a large dividend is not an indicator of higher earnings quality. Although the status of dividend payments, an increase in the size of dividends, and persistence in dividend payments are indicators or signals of higher earnings quality (FebrielaSirait, 2014).

Profitability has a significant positive effect on cash holding property & real estate companies and mining companies. The positive influence is caused by property companies starting to change the company's mindset since the crisis of 1997-1998 and 2008 will maintain liquidity. The property sector has skyrocketed, showing high dependence on property companies on bank debt, so the company is increasingly at risk of a major bankruptcy. Whereas in mining companies, mining companies are obliged to fulfill tax expense obligations in each of their business cycles to production operations. Tax obligations in the mining sector are closely monitored by the state because mining companies are companies whose management must be controlled by the state and closely monitored through the system (Tax Clearance) is a portrait of a company’s taxation track record. The two companies are indeed different in terms of industry concentration and regardless of the financial metrics used. Certain industries can show increased profitability after undergoing industry concentration, there is no consistent relationship between industry concentration ratios and industry average profitability (L. Jay Bourgeois III, Adam Ganz, Andrew Gonce, Keith Nedell, 2014). Mining companies hold cash holdings in line with the increasing sales volume and asset growth, where sales volume growth indicates an increase in profitability (Manuaba, Ida BagusPradnyana, 2014).

Liquidity has a significant positive effect on the cash holding of property and real estate companies. The results of this study are contrary to the hypothesis proposed because cash is part of the liquidity component. When liquidity increases, cash holding will also increase. The more companies have liquid assets that are easily transformed into cash without significant value changes, the company does not need to hold large amounts of cash (Ozkan, A and Ozkan, 2002; Al Najjar, 2013). Components of current assets in property companies are not as liquid as other sectors and require a long time to be converted into cash until property and real estate companies keep holding cash. Although most are supported by bank loans, the types of loans in the property and real estate sector can be withdrawn from time to time by the public. Current assets of property and real estate companies except for cash and cash equivalents, even short-term credit sales receivables depend on the sale of inventories so that liquidity is not reliable. Positive influence is also caused because when a property company is able to fulfill its short-term obligations such as paying building material suppliers, the company must also hold cash to pay interest charges on bank loans and debt principal. These results are different from mining companies. This can be caused by the structure of current assets except cash and cash equivalents in mining more liquid than in the property and real estate sector, especially in inventory. Inventories in mining are said to be more liquid because in general the mining products are directly supplied by other parties with a network of business cooperation. Basically, the measure of liquidity is related to profitability through a cash conversion cycle or cash gap at the industry level (Abuzar M.A. Eljelly, 2004; Harymawan I, 2017). Liquidity management aggressively improves operating performance and is usually associated with higher corporate values regardless of differences in structural characteristics or in the company's financial system (Yung-JangWang, 2002).

Size has a significant negative effect on the cash holding of property and real estate companies. The bigger the property and real estate companies, the smaller the cash holdings the company does. This is because small companies have a higher level of cash holding than large companies because large companies are considered to have easier access to external funds and generally have a better image than small companies and diversification of large companies that are less vulnerable to bankruptcy costs. In addition, companies with smaller sizes make it possible to liquidate their assets in the event of financial distress so that they hold more cash. The negative influence can also be illustrated that a larger company (represented by a larger total asset as a divider ratio in a cash holding) causes the ratio of cash holdings to decrease (Ferreira, Miguel A., 2004; Saddour, 2006; Gill, 2011). Different results are found in the mining company sector. Size has a positive and insignificant effect on the mining company's cash holding. Larger companies have a larger operational cash flow that requires greater cash holdings. The greater the mining company can be indicated by the higher sales volume and operational activities, so the greater the holding of cash for transportation costs, the cost of buying and maintaining heavy equipment as the number of fixed assets in the form of heavy equipment, labor costs and costs anticipated due to mining is a risk-intensive industry (Al Najjar, 2013; Abdilah, 2014).

In the cash holding aspect, companies have their own policies. Limited companies show greater investment-cash flow sensitivity than unrestricted companies. Also, there is strong evidence that cash stands as an effective tool for companies, especially during the crisis period (ÖzgürArslan, ChrisostomosFlorackis, 2006). Financial market imperfections are positively correlated with corporate cash holdings (Giorgio Calcagnini, Adam Gehr, 2009). In addition to these aspects, companies differ in their dependence on labor. Companies with a higher share of skilled workers have more flexibility to adjust their labor demand in response to cash flow shocks (Mohamed Ghaly, Viet Anh Dang, 2017).

Several other aspects need to be assessed considering the variables studied in this study only provide a few percents of the link with Cash Holding. Management of property and real estate companies should pay more attention to profitability, liquidity, and size as variables that determine cash holding. However, companies also need to pay attention to leverage and dividend payments as a consideration because these variables also have an effect on cash holding. The management of a mining company should pay more attention to dividend payments and profitability as the variables that determine the cash holding. However, companies also need to pay attention to leverage, liquidity, and size for consideration because these variables also influence the cash holding.

## CONCLUSION

Leverage, dividend payment, profitability, liquidity, and size have different effects on property and real estate companies and mining companies in cash holding. Greater influence occurs in mining companies compared to property and real estate companies.

## RESEARCH IMPLICATION

Both companies of property and real estate companies and mining companies should be careful with the company's cash holding policies related to these factors explained above. This can be emphasized so that the cash holding role can be managed wisely for the company's current and future growth.

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