



Working Capital Management and Cash Holdings: Evidence from LQ45 Companies in Indonesia

Anggita Langgeng WIJAYA, Mayang Resqita Ayu NADYA

Universitas PGRI Madiun, Indonesia

Abstract

The aim of this study is to examine the effect of working capital management on corporate cash holdings with a sample of LQ45 index companies on the Indonesia Stock Exchange. This study used all companies included in the LQ45 stock index company category on the Indonesia Stock Exchange as the population. The purposive sampling method was used as a sampling technique, with the research period set between 2012 and 2019. The hypothesis in this study was tested using a multiple regression model. The results of this study indicate that working capital management has a positive influence on LQ45 companies' cash holdings on the Indonesia Stock Exchange. This research proves that in the case of LQ45 companies on the Indonesia Stock Exchange, even though the company has an adequate working capital ratio, the company does not reduce the amount of company's cash holdings to maintain the level of corporate liquidity.

Key terms: cash holdings, liquidity, LQ45 index, net working capital, profitability

JEL Classification: G30, G32, M40

To cite this article: Anggita Langgeng Wijaya, Mayang Resqita Ayu Nadya, *Working Capital Management and Cash Holdings: Evidence from LQ45 Companies in Indonesia, CECCAR Business Review*, N° 9/2021, pp. 52-62, DOI: http://dx.doi.org/10.37945/cbr.2021.09.06

Introduction

Ginglinger & Saddour (2012) state that determining the optimal level of cash holdings is one of the critical financial decisions for corporate financial managers. Afza & Adnan (2007) state that the company has sufficient cash holding with several objectives, such as re-investment activities, cash distribution to investors, and efforts to maintain the company's financial flexibility. Ferreira & Vilela (2004) state that at the end of 2000, most companies in the European Union countries had an average of 14.8% cash and cash equivalents in the total composition of company assets. Duchin (2010) explains that based on data from 1990 to 2006, companies in the United States with diverse business activities have an average cash holding of 11.9%, while stand-alone companies hold more than 20.9% of company assets in cash.

Kusnadi (2005) reveals that the company's efforts to maintain optimal cash reserves are financial decisions related to agency problems (Jensen & Meckling, 1976). The problem of information asymmetry between the bondholders, management, and shareholders causes problems related to the company's funding sources. The availability of sufficient cash holding is an effort to maintain company liquidity, the availability of internal funding sources to finance investment without depending on external funding sources. Gill & Shah (2012) state that cash holdings are guarantees of a company's ability to pay the short-term debt. Companies need sufficient cash reserves to ensure business operations are running well. The decision on the number of cash holdings is an attempt to create positive cash flow for the company, which is expected to have an impact on increasing sales and profit





growth of the company. However, according to Jensen (1986), high cash holding has the potential to increase agency conflict between managers and shareholders. Cash holding has a liquid nature so that it is easy to control. The large cash holding can be an unproductive asset, triggering management overinvestment, consumption for personal gain, and unfavourable cash turnover, which ultimately harms the company's shareholders.

This study examines the effect of working capital management on corporate cash holdings. According to Couderc (2006), research on cash holdings is still considered insufficient to prove the motivation of company managers to have excess cash holdings. Iqbal *et al.* (2014) revealed that working capital management is an essential financial decision that affects the company's cash holdings. Working capital management will have a direct impact on the company's profitability and liquidity. If the company has a lot of working capital, the company will have difficulties in making a business investment. However, on the other hand, if the amount of working capital is too small, the company will have liquidity problems to carry out daily business operations. Autukaite & Molay (2012) explain that most companies operate in imperfect capital markets, so working capital management and cash holdings are sensitive areas. By conducting effective working capital and cash management, the company will reduce the dependence on external funding sources and can use cash for investment purposes. These conditions will create financial flexibility for the company. Effective management of working capital and cash management reduce company risk, suggesting cheaper external financing, thereby reducing the average cost of capital.

Wieczorek-Kosmala *et al.* (2016) state that working capital management tries to find the best formulation in facing risks to business operations as well as risks to external funding. The company's cash flow volatility is directly related to the company's liquidity and has an impact on the company's efforts to increase profitability and avoid bankruptcy. Yeboah & Agyei (2012) explain that companies that have optimal working capital have the potential to maximize return and firm value. Working capital has many advantages for the company: the company's ability to pay debts quickly, the ability to distribute funds to the owner, the ability to finance the company's activities, and sufficient liquidity. Efficient working capital management will have an impact on the long-term growth of the company and the company's ability to generate sustainable profits. The core of working capital management in both developed and developing countries has the same goal of ensuring that the organization has a sufficient level, regularity and consistency of cash flow to finance the company's business activities (Yeboah & Agyei, 2012).

The context of this study is the analysis of financial policies related to cash holdings on LQ45 index companies on the Indonesia Stock Exchange. The LQ45 index is an index consisting of 45 shares on the Indonesia Stock Exchange that are most actively traded. The LQ45 index company contains 45 companies with the highest stock liquidity and the largest market capitalization in Indonesia. The contribution of this research is to provide a more complete and comprehensive explanation of the influence of working capital management and cash holdings on LQ45 index companies on the Indonesia Stock Exchange. The LQ45 index on the Indonesia Stock Exchange is an indicator that the company's shares have the best trading liquidity, have favorable business prospects, and get high appreciation and trust from investors. The LQ45 stock index liquidity shows the company's easy access to funding sources on the Indonesia Stock Exchange.

According to Li (2007), if a company has excellent access to the capital market, it will be easy and inexpensive to obtain external funding sources. In these conditions, Li (2007) states that cash holdings are less relevant, and if the amount is too large, it is an unproductive asset. Based on this explanation, the research on working capital management, and cash holdings on LQ45 index companies on the Indonesia Stock Exchange is very interesting to study. This study uses the research period between 2012 and 2019. The year 2012 was chosen because, in that year, Indonesia began to make a full adoption of the International Financial Reporting Standards (IFRSs). The implementation of the IFRSs in Indonesia in 2012 has become something new for the Indonesian capital market. The full adoption of the IFRSs has an impact on the fundamental changes in the way management presents financial reporting and influences the way and mindset of investors in understanding the information presented in financial reporting. 2019 was chosen because the researchers used the most up to date data that was already available on the Indonesia Stock Exchange.





This research is organized as follows. The second part of this study discusses the review of the literature and the development of hypotheses that explain working capital management and cash holding and research hypotheses. The third part presents the research methodology, which contains a discussion of population and sample, variable definitions, and data analysis techniques. The fourth section presents the results of the empirical analysis and discussion of the results of the study. The fifth part presents conclusions, which contain research conclusions, limitations, and suggestions for further research.

Review of literature and hypothesis

■ Working capital management

Ali & Ali (2012) explain that working capital management is an essential component of corporate financial management. Control of the company's current asset components such as cash and cash equivalents accounts receivable, and also company inventories are part of working capital management. Some studies link working capital management with company profitability. Changes in the accrual component in the company's working capital sensitive affect the accrual in the financial statement component, where the eventual impact will affect the company's earnings. Rahman *et al.* (2015) state that working capital is a component of company capital that used to finance the daily activities of the company. The productivity and profitability of the company will depend on the effectiveness and efficiency of using company assets. Every company wants efficient working capital management to minimize the short-term costs of equity capital, increasing production, which has an impact on company profitability. Working capital is a comparison between the composition of current assets and current liabilities of the company, and it will have an impact on the company's liquidity and profitability.

Den & Oruc (2009) explain that the essential subject of working capital management is to balance each component of working capital. Working capital management manages cash inflows from changes in current assets and cash outflows to pay current liabilities. Agency theory explains that increasing the firm's value is the primary goal of every company. A company's value is influenced by various factors, one of which is the company's financial profitability. The company's working capital strategy will affect profitability, while profitability will have an impact on the firm's value. Working capital management will directly or indirectly affect the activity of corporate value creation. The component of a company's working capital can change dynamically according to the conditions faced by the company. The need for working capital affects the profitability and liquidity, which in turn will have an impact on corporate funding and investment decisions.

Addae & Nyarko-Baasi (2013) state that working capital management has an impact on profitability and liquidity. Working capital balance serves to meet the short-term operational needs of the company's business. Hopefully, the money that the company invested will turn back into more money through the company's business activities. Company managers will be faced with two situations that require the right decision to make optimal financial policies. On the one side, working capital management is designed to support productive activities that can increase profitability and increase shareholder value. On the other side, working capital management is needed to minimize the risk of company liquidity. By managing cash optimally, the company can fulfil the company's short-term obligations to the bondholders, while still being able to carry out the company's operational activities.

Boisjoly *et al.* (2020) explain that working capital management can be a competitive advantage for companies. The availability of the company's cash flow helps the company's management in forming and managing the working capital component. A continuous increase in working capital helps the company improve its performance by increasing its return on equity. This study indicates that large companies in the USA can make continuous improvements to the company's working capital management. This increase can have an impact on improving company performance, which has an impact on increasing its market value.

Yunos *et al.* (2015) state that effective working capital management is crucial for companies. The company tried to achieve high profits, but faced liquidity problems. Working capital management shows the management





of current assets and current liabilities of the company. If current assets are higher than the current debt, it shows a positive working capital ratio. The positive working capital ratio is an indicator of a company's financial health. Efforts to maintain the level of company liquidity have a trade-off with company profitability. Companies can pursue profitability by financing prospective investment opportunities but will face difficulties in terms of liquidity. Based on the explanation, Yunos *et al.* (2015) state that the relationship between working capital and profitability is negative.

Autukaite & Molay (2012) explain that efficient working capital management will reduce company risk. The low business risk will make it easy for companies to obtain cheap funding sources from both shareholders and bondholders. Cheaper sources of funding will reduce the cost of equity capital. Shubita (2019) explains that a company's business decisions have a boundary between business liquidity risk and profitability. Working capital management focuses on the quality of the company's current assets. The quality of current assets is related to the average time to convert current assets into cash. The quality of work management will depend on the company's ability to hold sufficient cash to finance short-term debt and the adequacy of cash flow for the day-to-day operations of the company.

■ Net working capital and corporate cash holdings

Sarmiento (2016) explains that investment strategies and funding decisions are an essential part of the efforts to minimize company business risk. The company's financial management strategy focuses on creating value through effective and efficient financial management so that it has a superior advantage over competitors. Management of corporate working capital is related to efforts to create corporate earnings through efficient financial management (Boisjoly *et al.*, 2020). Maya (2014) explains that companies always expect investments that generate a positive net present value (NPV). A positive NPV shows the company's ability to generate cash in the future. An increase in cash in the future is an indicator of an increase in shareholder welfare. According to Afza & Adnan (2007), cash holding companies are also used to carry out investment activities. When a company experiences financial difficulties and expensive external funding sources, it can use cash holdings to finance the investment with the best NPV.

Ginglinger & Saddour (2012) state that cash holding is the amount of cash (cash) that a company has to carry out various company activities. Cash holding is a financial ratio that compares the amount of cash and cash equivalents with the amount of all assets owned by the company (García-Teruel *et al.*, 2009). According to Mesfin (2016), there are several motives of company cash holdings. The first motive is the transaction motive. According to the transaction motive, the company holds cash intending to finance the company's daily transactions. The second motif is the precaution motive. According to the precaution motive perspective, the company has a cash holding to anticipate events and unexpected fluctuations from the financing aspect to maintain the company's security. The third motif is speculation motive. According to the speculation motive explanation, the company has the cash to speculate observing various new business opportunities that are considered profitable.

According to Abel (2008), there are several factors related to the company's cash holding. Some factors have a positive impact, and other factors have a negative impact. If the company has a high investment association, the company will hold large amounts of cash with the aim of investment financing, anticipating information asymmetry on external funding. If the company has a fluctuation and risk on the company's cash flow, the company holds high amounts of cash intending to meet internal financial needs and anticipating unexpected events. With this explanation, the company's working capital management has a positive impact on the company's cash holdings. Opler *et al.* (1999) found that net working capital had a negative effect on cash holding. Working capital is a substitute for cash, so companies that have high working capital ratios can reduce the amount of cash holding companies. According to Abel (2008), the opposite perspective explains that the effect of working capital management is negative towards the company's cash holdings. If the company has high assets and high leverage, it has easy access to the capital market so the company can hold cash holding in a low amount. If the company has high investor protection and cash holding is considered as a potential takeover of investor rights, the effect





on cash holding is negative. In terms of liquidity, if the company has a high level of liquidity, the company can hold cash in small amounts by explaining the speed of conversion of non-cash assets into cash so that the company does not need to hold cash in large amounts.

Aftab *et al.* (2018) examine that cash holding by comparing the data of the research between various countries. By taking samples and comparisons from North America, South America, Africa, Europe, and the Asia Pacific, this study shows consistent results that net working capital has a negative effect on the company's cash holding. Ozkan & Ozkan (2004) studied cash holding in companies in the United Kingdom. The results of this study indicate that liquidity measured by net working capital has a negative effect on the company's cash holding. If a company has high liquidity of assets, the company does not need to have a large balance and does not need to be too dependent on external funds from the capital market.

Autukaite & Molay (2012) explain that with efficient working capital management, companies can reduce dependence on the company's external funding sources and are more likely to use cash to finance company investment. This condition will cause companies to have more financial flexibility. With proper management of current assets, companies can reduce the need for funding, especially those from external sources. According to Shubita (2019), if working capital is managed effectively and efficiently, the company can hold cash in small amounts. Companies can form an optimal cash holding because large cash holding does not bring profit and is a less productive asset. According to Ginglinger & Saddour (2012), non-cash current assets are substitutes for company cash. If current non-cash is easily converted to cash, the company can hold cash in small amounts. Based on this explanation, the relationship between working capital management and cash holding is negative.

Based on the literature review above, the researcher concluded that the effect of working capital on cash holding can be positive and can also be negative, with most of the results of previous studies showing a negative effect. Then, what about the effect of net working capital on cash holding on companies included in LQ45 on the Indonesia Stock Exchange? General knowledge has stated that the LQ45 company is a stock index for companies with high levels of market liquidity and large market capitalization on the Indonesia Stock Exchange. LQ45 index companies have access to good sources of funding in the capital market. This company gets more appreciation and trust from Indonesian market participants. LQ45 companies should be able to hold small amounts of cash when viewed from the ability to access capital market funding sources. However, the LQ45 index indicator is capital market liquidity. This market liquidity is not necessarily directly proportional to the financial liquidity on the company's balance sheet.

Based on the explanation above, the research hypothesis is formulated as follows: H1: Working capital management influences cash holding in LQ45 index companies on the Indonesia Stock Exchange.

Research methodology

■ Data of the research, population, and samples

This research was conducted at the Indonesia Stock Exchange. The population of study consisted of all companies listed on the LQ45 stock index. The data of the research used was LQ45 company data from 2012 to 2019. Each year, there were two periods of valuation of the company shares included in the LQ45 index on the Indonesia Stock Exchange, namely the February-July period and the August-January period. Researchers used the LQ45 index announcement data in the second period, August-January, with closer consideration to the date of the company's financial statements in Indonesia, which was on December 31. The data of the research came from audited financial statements, the Indonesian Capital Market Directory (ICMD), and performance summary documents. The following are the criteria used by researchers in the selection of samples with a purposive sampling method approach.

- ✓ The company is included in the LQ45 stock index on the Indonesia Stock Exchange in the second period in 2012-2019.
 - ✓ The company has an audited financial statement with a December 31 report date.
 - ✓ The company has complete financial data following the data needs of researchers.





■ Definition of operational variables

✓ Independent variable

The independent variable in this study is working capital management, which is proxied by net working capital. According to Shubita (2019), net working capital is a financial ratio that explains the difference between current assets and current liabilities when compared to the overall total assets of a company. Regarding Den & Oruc (2009), net working capital is calculated using the following formula.

Net working capital =
$$\frac{Current \ asset \quad Current \ liabilities}{Total \ asset}$$
 (1)

✓ Dependent variables

Cash holding is the dependent variable in this study. According to García-Teruel *et al.* (2009), cash holding is a comparison between the amount of cash and the total assets of a company. Regarding García-Teruel *et al.* (2009), cash holdings in this study were calculated using the following formula.

Cash holding =
$$\frac{Cash \ and \ cash \ equivalents}{Total \ asset}$$
 (2)

✓ Control variables

Leverage and firm size are used as control variables in this study. According to García-Teruel *et al.* (2009), leverage has a negative effect on the company's cash holding. Companies with high leverage show an excellent ability to get debt on the bond market. Corporate debt can serve as a substitution of the company's current assets. The company can finance the company's investment activities with debt so that the company does not need to hold a large amount of cash holding. Referring to García-Teruel *et al.* (2009), leverage in this study is measured by a comparison between total debt and total company assets. Shubita (2019) explained that the existence of cash holding would be influenced by firm size. Large companies need more cash to finance their activities compared to smaller companies. Referring to Shubita (2019), the size of the company is measured by the natural log of the total assets.

Regression test

Multiple regression is used to test the hypothesis in this study, while the regression equation of this study is presented in the following model.

$$CHt = \alpha + \beta 1 \ NWCt + \beta 2 \ LEVt + \beta 3 \ LNSIZE + e$$
 (3)

Where *CHt* is the notation for the dependent variable corporate cash holdings, while *NWCt* is the notation for net working capital as an independent variable. *LEVt* is a notation for leverage, and *LNSIZEt* is a notation for the log nature of firm size. 61-63 are the symbol for is regression coefficient, and e is the symbol for error.

The analysis technique used is multiple regression. The regression tests include testing in the form of the coefficient of determination (adjusted R²), the value of F regression, and the value of t regression. This study also analyzes the classic assumption test as a prerequisite for multiple regression testing. Testing of descriptive statistics and correlations between research variables was also carried out, providing more detailed information on the distribution of research data.

Analysis and discussion

■ Descriptive statistics

The empirical results of this study begin with a discussion of descriptive statistics. Based on the results of data collection obtained, the number of observations during the research period from 2012 to 2019 is 360 data



CECCAR BUSINESS REVIEW ISSN 2668-8921 • ISSN-L 2668-8921 Nº 9/2021





of companies. In the next stage, the researchers conducted testing of the outlier data. Test results for outlier data show that there are 27 outlier data. The researchers remove the outlier data from the stages and process of analysis. The total of research observations that used was 333 research observations.

An explanation of the descriptive statistical tests for each research variable is shown in the table below.

Table 1. Descriptive statistics

Variable	N	Min	Max	Mean	SD
CASH	333	0.000	0.333	0.116	0.073
NWC	333	-0.494	0.671	0.161	0.184
LEV	333	0.136	0.946	0.521	0.211
LNSIZE	333	26.052	34.887	31.318	1.393

Source: Authors calculation results.

Table 1 explains that the average LQ45 company on the Indonesia Stock Exchange has a cash holding of 11.6% when compared to the company's total assets. LQ45 index companies have the highest amount of cash holding of 33.3% with the smallest cash holding value of 0.4%. The dependent variable working capital of LQ45 companies on the Indonesia Stock Exchange provides a different distribution. Some companies have weak net working capital, which is a figure of -49.4%, but some companies have excellent working capital at a rate of 67.1%. The negative net working capital ratio value shows that there is a LQ45 company that has higher current liabilities than the current assets of the company, it means that the company's liquidity is in bad condition. The average working capital of LQ45 companies on the Indonesia Stock Exchange is 16.1%. The LQ45 leverage ratio on the Indonesia Stock Exchange averages 0.521 (52.1%) with a standard deviation of 0.21, while the average size of the company is 31.32 with a standard deviation of 1.39.

The following table presents the test results for the correlation matrix.

Table 2. Correlation matrix

	CASH	NWC	LEV	LNSIZE
CASH	1			
NWC	0.391	1		
LEV	-0.244	-0.432	1	
LNSIZE	-0.031	-0.096	0.492	1

Source: Authors calculation results.

Table 2 shows that the correlation between the most significant variables occurs between leverage and firm size that are equal to 0.492. In contrast, the correlation between the smallest variables occurs between firm size and working capital that is equal to 0.031.

The result of classical assumption

The results of classical assumption in this study include normality tests, multicollinearity, autocorrelation, and heteroscedasticity. The results of the normality test in this study used the One-Sample Kolmogorov-Smirnov test. The One-Sample Kolmogorov-Smirnov test results showed that a p-value of 0.078, so it can be concluded that the data in this study had passed the data normality test. The results of the multicollinearity test showed tolerance values above 10% and VIF values smaller than 10, so it can be concluded that there is no multicollinearity problem in the research model. The autocorrelation test results showed a calculated DW value of 1.911, so it can be concluded that in this study there is no autocorrelation problem. The heteroscedasticity test in this





study used the scatterplots test approach. Heteroscedasticity test results showed points on scatterplots graphs that spread irregularly, no regular patterns formed, so it can be concluded that in this study there were no heteroscedasticity problems.

■ The results of multiple regression

The following table presents the results of the regression analysis of this study.

Table 3. Regression results

Description	Coefficient	Std Error	t-Statistic	p-value
Constanta	0.011	0.092	0.115	0.909
NWC	0.136	0.023	6.041	0.000
LEV	-0.045	0.023	-0.129	0.047
LNSIZE	0.003	0.003	0.065	0.269
F-value	21.361			0.000
Adjusted R-squared	0.155			

Source: Authors calculation results.

Table 3 presents the empirical results of the research hypothesis test. The testing of the coefficient of determination shows the value of adjusted R-squared of 0.155. This result means that 15.5% of the variation in changes in the company's cash holding can be explained by net working capital, leverage, and company size. 84.5% influence by outside factors of the research. The results of the F regression test showed the calculated F-value of 21.36 with a p-value of 0.000. Based on the results of the F-test, it can be concluded that the regression model is fit with the data used.

The aims of hypothesis 1 in this study is to examine the effect of working capital on corporate cash holding at LQ45 companies in Indonesia. Regression test results showed an unstandardized beta coefficient of 0.136, with a p-regression value of 0.000. Regression test results showed significant results with positive coefficients. Hypothesis 1 in this study is accepted. This study found that net working capital had a positive effect on the company's cash holding on LQ45 companies on the Indonesia Stock Exchange. The result of this study does not support by the results of Aftab *et al.* (2018) and also Shubita (2019), which found a negative influence of working capital on the company's cash holding. However, the results of this study supported by the opinion of Abel (2008), which states that working capital can have a positive effect on the company's cash holding.

Regression test results also show that leverage has a regression coefficient of -0.045, with a p-value of 0.047, while firm size has a regression of 0.003 p-values of 0.269. The results of testing of the control variables indicate that leverage negatively affects the company's cash holding while firm size does not affect the company's cash holding. The results of testing of leverage as a control variable support the research of García-Teruel *et al.* (2009), who found that leverage negatively affects a company's cash holding. The results of testing the firm size do not support the results of research Shubita (2019), who found that the firm size has a positive effect on the company's cash holding.

■ Discussion

The results of this study indicate that working capital management has a positive effect on cash holdings on LQ45 index companies on the Indonesia Stock Exchange. Working capital management, as measured by net working capital, has a positive impact on corporate cash holdings. The results of this study contradict the results of previous studies conducted by Ozkan & Ozkan (2004), Aftab *et al.* (2018), Shubita (2019). They explain that net working capital is cash substitution so that net working capital has a negative influence on the company's





cash holdings. Although Abel (2008) states that working capital can have a positive effect on cash holding, empirical evidence that shows the positive effect of net working capital on cash holding is very little.

The researchers believe that several factors cause the differences in the results of this study with previous studies. In the first explanation, Indonesia is a country with emerging market types. Investors and company management are faced with the potential for high information asymmetries that can have an impact on the interests of each party. Company managers take a conservative policy by having a certain amount of cash holding that is considered appropriate and sufficient to anticipate the adverse effects of information asymmetry. More flexible cash holding is also formed by managers to anticipate business operational risks and potential agency conflicts.

The second explanation is that the net working capital can be a cash substitution if the cost of converting non-cash current assets into cash is easy and inexpensive compared to other assets (Ozkan & Ozkan, 2004). LQ45 companies in the Indonesian Capital Market consist of companies in which internal financial conditions and cash flow fluctuations faced by companies are not the same. LQ45 index is measured based on the level of stock trading liquidity and market capitalization, but each company has an unequal ability to convert non-cash assets into cash. The positive effect of net working capital on cash holdings shows the company's efforts to maintain liquidity at a safe level. If related to the principle of accounting conservatism, LQ45 companies in Indonesia, despite having a good net working capital ratio, still hold cash in a certain amount. The company does not take risks by reducing the number of cash holdings despite the company's excellent working capital.

The third explanation is that companies in the LQ45 index consist of various companies with different industry backgrounds. The company faces the risk of business activities and cash flow fluctuations that are not the same. These conditions explain why the LQ45 company does not reduce cash holding despite a positive working capital ratio. The precautionary motives and the motives for anticipating unexpected events in the company's business activities can explain this condition. This opinion is consistent with Mesfin (2016), which explains that there is a precaution motive in having cash holding, namely the company's anticipation of events and unexpected fluctuations from the aspects of financing and business operations to maintain the company's liquidity security.

Conclusions

Based on the results of the analysis and discussion in the previous section, this study concludes that working capital management, which is proxied by net working capital, has a positive impact on the LQ45 index company's cash holding on the Indonesia Stock Exchange in 2012-2019. The results of this study contribute to increasing the understanding of company managers at the Indonesia Stock Exchange on working capital management and corporate cash holdings. The findings of this research show that although a company has a high working capital ratio, company managers still try to maintain the company's financial liquidity by not reducing the number of cash holdings.

This study's results contribute to previous literature on working capital management and cash holding research, primarily for companies in emerging economies. Although it will cause debate, this research found that research models and theoretical studies on cash holdings in developed capital markets are not always suitable for cash holdings research in emerging market countries. Researchers believe this is due to a variety of factors, such as more reliable capital market supervision mechanisms, different levels of corporate governance, business risks, macroeconomic variables, and different information asymmetry.

The findings from this study have implications for managers in the Indonesian capital market. Based on the findings of this research, managers of emerging markets such as the Indonesia Stock Exchange should adopt more conservative policies related to corporate cash holdings. Even though the company has an excellent working capital ratio, company managers still hold cash in specific amounts, which are considered sufficient to anticipate unexpected business risks. The high ratio of net working capital does not necessarily make managers adopt policies that reduce the number of corporate cash holding.





The findings of this research are certainly different from previous international research, which states that the higher the net working capital, the smaller the number of corporate cash holdings. The results of this study indicate contradictory results in which the net working capital has a positive effect on the company's cash holding. Researchers provide several arguments related to this. First, the Indonesia Stock Exchange is a capital market with emerging market types. In capital markets with emerging market types, there is a high probability of information asymmetry. Companies in the capital market still have sufficient cash holdings to protect themselves from the adverse effects of unexpected events and the risk of information asymmetry. Second, the company's internal capability and cycle time in converting current assets into cash are not the same. Even though LQ45 companies are trusted and have good access to the capital market, managers still maintain liquidity risk at a safe level for the company so that business operations continue to run well. This explanation is consistent with the precaution motive given by Mesfin (2016).

Limitations of this study include that it only sampled LQ45 index companies on the Indonesia Stock Exchange so that results could be different for other types of companies. This study only took the LQ45 index in the second assessment period each year and ignored the Indonesian macroeconomic conditions during this study. Further research is suggested to test this research model in other industries, such as banking and manufacturing. Further research is also recommended to develop research by linking the working capital management with the company's profitability and firm value.

References

- 1. Abel, M. (2008), *The Impact of Working Capital Management on Cash Holdings: A Quantitative Study of Swedish Manufacturing SMEs*, Master Thesis, Mid Sweden University.
- 2. Addae, A.A., Nyarko-Baasi, M. (2013), *Working Capital Management and Profitability: An Empirical Investigation in an Emerging Market*, Research Journal of Finance and Accounting, Vol. 4, No. 15, pp. 143-152.
- 3. Aftab, U., Javid, A.Y., Akhter, W. (2018), *The Determinants of Cash Holdings Around Different Regions of the World*, Business & Economic Review, Vol. 10, No. 2, pp. 151-182, https://doi.org/10.22547/ber/10.2.7.
- 4. Afza, T., Adnan, S.M. (2007), *Determinants of Corporate Cash Holdings: A Case Study of Pakistan*, Proceedings of Singapore Economic Review Conference (SERC), https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=SERC2007&paper_id=166.
- 5. Ali, A., Ali, S.A. (2012), Working Capital Management: Is It Really Affects the Profitability? Evidence from Pakistan, Global Journal of Management and Business Research, Vol. 12, No. 17, pp. 75-78.
- 6. Autukaite, R., Molay, E. (2012), *Cash Holdings, Working Capital and Firm Value: Evidence from France*, SSRN Electronic Journal, https://doi.org/10.2139/ssrn.1836900.
- 7. Boisjoly, R.P., Conine, T.E., McDonald, M.B. (2020), *Working Capital Management: Financial and Valuation Impacts*, Journal of Business Research, Vol. 108, pp. 1-8, https://doi.org/10.1016/j.jbusres.2019.09.025.
- 8. Couderc, N. (2006), *Corporate Cash Holdings: Financial Determinants and Consequences*. Revue économique, Vol. 57, No. 3, pp. 485-495, https://doi.org/10.3917/reco.573.0485.
- 9. Den, M., Oruc, E. (2009), *Relationship Between Efficiency Level of Working Capital Management and Return on Total Assets in ISE (Istanbul Stock Exchange)*, International Journal of Business and Management, Vol. 4, No. 10, https://doi.org/10.5539/ijbm.v4n10p109.
- 10. Duchin, R. (2010), *Cash Holdings and Corporate Diversification*, Journal of Finance, Vol. 65, No. 3, pp. 955-992, https://doi.org/10.1111/j.1540-6261.2010.01558.x.
- 11. Ferreira, M.A., Vilela, A.S. (2004), Why do Firms Hold Cash? Evidence from EMU Countries, European Financial Management, Vol. 10, No. 2, pp. 295-319, https://doi.org/10.1111/j.1354-7798.2004.00251.x.





- 12. García-Teruel, P.J., Martínez-Solano, P., Sánchez-Ballesta, J.P. (2009), *Accruals Quality and Corporate Cash Holdings*, Accounting and Finance, Vol. 49, No. 1, pp. 95-115, https://doi.org/10.1111/j.1467-629X.2008.00276.x.
- 13. Gill, A., Shah, C. (2012), *Determinants of Corporate Cash Holdings: Evidence from Canada*, International Journal of Economics and Finance, Vol. 4, No. 1, pp. 70-79, https://doi.org/10.5539/ijef.v4n1p70.
- 14. Ginglinger, E., Saddour, K. (2012), *Cash Holdings, Corporate Governance and Financial Constraints*, SSRN Electronic Journal, https://doi.org/10.2139/ssrn.2154575.
- 15. Iqbal, N., Ahmad, N., Riaz, Z. (2014), *The Relationship Between Working Capital Management and Profitability: Evidence from Pakistan*, International Letters of Social and Humanistic Sciences, Vol. 20, pp. 14-25, https://doi.org/10.18052/www.scipress.com/ilshs.20.14.
- 16. Jensen, M.C. (1986), *Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers*, The American Economic Review, Vol. 76, No. 2, pp. 323-329.
- 17. Jensen, M.C., Meckling, W.H. (1976), *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, Journal of Financial Economics, Vol. 3, No. 4, pp. 305-360, https://doi.org/10.1016/0304-405X(76)90026-X.
- 18. Kusnadi, Y. (2005), *Corporate Governance Mechanisms and Corporate Cash Holdings*, SSRN Electronic Journal, https://doi.org/10.2139/ssrn.675462.
- 19. Li, W. (2007), The Determinant of Cash Holdings: Evidence from Chinese Listed Companies, in Research on Organizational Innovation: 2007 Proceedings of International Conference on Enterprise Engineering and Management Innovation, pp. 346-352.
- 20. Maya, C. (2014), *Valuation: From the Discounted Cash Flows (DCF) Approach to the Real Options Approach (ROA)*, SSRN Electronic Journal, https://doi.org/10.2139/ssrn.2498316.
- 21. Mesfin, E.A. (2016), *The Factors Affecting Cash Holding Decisions of Manufacturing Share Companies in Ethiopia,* International Journal of Advanced Research in Management and Social Sciences, Vol. 5, No. 3, pp. 48-67.
- 22. Opler, T., Pinkowitz, L., Stulz, R., Williamson, R. (1999), *The Determinants and Implications of Corporate Cash Holdings*, Journal of Financial Economics, Vol. 52, No. 1, pp. 3-46, http://dx.doi.org/10.1016/S0304-405X(99)00003-3.
- 23. Ozkan, A., Ozkan, N. (2004), *Corporate Cash Holdings: An Empirical Investigation of UK Companies*, Journal of Banking and Finance, Vol. 28, No. 9, pp. 2103-2134, https://doi.org/10.1016/j.jbankfin.2003.08.003.
- 24. Rahman, M.M., Uddin, M.N., Ibrahim, S. (2015), *Measuring the Relationship Between Working Capital Management and Profitability: Empirical Evidence from Bangladesh*, Journal of Accounting and Finance, Vol. 15, No. 8, pp. 120-132.
- 25. Sarmiento, J.P. (2016), *Disaster Risk Management in Business Education Setting the Tone*, AD-Minister, No. 28, pp. 7-32, https://doi.org/10.17230/ad-minister.28.1.
- 26. Shubita, M.F. (2019), *The Impact of Working Capital Management on Cash Holdings of Large and Small Firms: Evidence from Jordan*, Investment Management and Financial Innovations, Vol. 16, No. 3, pp. 76-86, http://dx.doi.org/10.21511/imfi.16(3).2019.08.
- 27. Wieczorek-Kosmala, M.W., Doś, A., Błach, J., Gorczyńska, M. (2016), *Working Capital Management and Liquidity Reserves: The Context of Risk Retention*, Journal of Economics and Management, Vol. 23, No. 1, pp. 5-20.
- 28. Yeboah, B., Agyei, S.K. (2012), *Working Capital Management and Cash Holdings of Banks in Ghana*, European Journal of Business and Management, Vol. 4, No. 13, pp. 120-130, http://www.iiste.org/Journals/index.php/EJBM/article/view/2710.
- 29. Yunos, R.M., Nazaruddin, N., Ghapar, F.A., Ahmad, S.A., Zakaria, N.B. (2015), *Working Capital Management in Malaysian Government-Linked Companies*, Procedia Economics and Finance, Vol. 31, pp. 573-580, https://doi.org/10.1016/S2212-5671(15)01203-4.