

Applied Quantitative Analysis (AQA)

E-ISSN 2808-4934 | P-ISSN 2808-4640

[Current](#) [Archives](#) [Announcements](#) [About](#) [▼](#)

[Home](#) / [Archives](#) / Vol. 4 No. 1 (2024): January - June 2024

In this issue (Vol. 4 No. 1 (2024)), all of the published articles were authored/co-authored by **11 authors** from **5 institutions**, i.e. Maranatha Christian University (**Indonesia**), Akademi Penerbang Indonesia Banyuwangi (**Indonesia**), Bulacan State University (**Philippines**), Bakrie University (**Indonesia**), and Bandung Institute of Technology (**Indonesia**)

DOI: <https://doi.org/10.31098/aqa.v4i1>

Published: 2024-03-22

Articles

Performance of Companies and Controlling Share Ownership on Company Liquidity: Evidence from Emerging Markets

[Aulia Asriani Putri, Riki Martusa, Meythi Meythi](#)

1-11

[PDF](#)

Evaluating The Impact of Online Product Review Credibility and Online Product Review Quality on Purchase Intention of Online Consumers

[Josephine Diana S Campos, Jofrey R Campos](#)

12-28

[PDF](#)

The Influence of Physical Training on The Flight Performance of Cadets

[Fajar Islam, Muhammad Rosihan Aristo](#)

29-41

[PDF](#)

Enhancing Retail Supermarket Financial Performance Through Market Basket Analytics Using Apriori Algorithm In Indonesia Market Case

[Jerry Heikal, Ayu Gandhi](#)

42-53

[PDF](#)

Strategic Analysis of International Oil and Gas Companies' Response to Global Carbon Emission Reduction Initiatives

[Budi Prasetyo, Utomo Sarjono Putro](#)

54-68

[PDF](#)

ARTICLE TEMPLATE



[Make a Submission](#)

PEOPLE

[Editorial Board](#)

[Scientific Reviewer](#)

[Contact](#)

POLICIES

[Focus & Scope](#)

[Journal History](#)

[Indexing and Abstracting](#)

[Peer Review Process](#)

[Open Access Policy](#)

[Archiving Policy](#)

[Publication Ethics Statement](#)

[Allegations of Misconduct](#)

[Screening for Plagiarism](#)

[Correction and Retraction](#)

[Crossmark Policy](#)

SUBMISSION

[Author Guidelines](#)

[Article Processing Charge](#)

[Copyright Notice](#)

[Privacy Statement](#)

STATISTICS

Visitors



[View My Stats](#)

JOURNAL METRICS

Acceptance Rate :	60%
Review Speed :	10 weeks
Issue Per Year :	2
Number of Volumes :	5
Number of Issues :	8
Number of Articles :	48
Number of Reviewers :	14
Number of Contributors :	124
Contributing Countries :	6
No. of Scopus Citations :	10
No. of WoS Citations :	0
No. of Google Citations :	42

Google h-index : 3
Google i10-index : 1
ICV : 85.47
Abstract Views : 0
PDF Download : 0

UPDATE: March 04, 2025

PUBLISHED BY:

Politeknik Ilmu Pelayaran Semarang and Research Synergy Foundation

Applied Quantitative Analysis (AQA)

Mailing Address:

Research Synergy Foundation
Jalan Nyaman no 31
Komplek Sinergi Antapani
Bandung 40291 - Indonesia.

Email: aqa@researchsynergypress.com

The **Applied Quantitative Analysis (AQA)** is indexed by:



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

Platform &
workflow by
OJS / PKP



Performance of Companies and Controlling Share Ownership on Company Liquidity: Evidence from Emerging Markets

Aulia Asriani Putri¹, Riki Martusa^{1*} , Meythi Meythi¹

¹ Maranatha Christian University, Indonesia

Received : December 18, 2023

Revised : March 17, 2024

Accepted : March 20, 2024

Online : March 22, 2024

Abstract

The relationship between the fundamentals of a firm and cash holdings is an interest topic in financial accounting and financial market literature. Adequate cash holdings can lead to higher profits and financial flexibility, allowing companies to take advantage of opportunities. Therefore, the real estate and property sector requires optimal liquidity holdings to avoid losing investment opportunities and achieve organizational goals. This study examines the effect of controlling share ownership and profitability on cash holdings in the corporate sector. Our samples are the real estate and property sub-sector from 2018 to 2021. The study uses quantitative methods with an archival technique from a capital market database. We performed multiple linear regression to test our hypotheses. The findings show that controlling share ownership has a significant influence on cash holdings. However, the profitability impact on cash holding is not supported. Our study has several limitations, i.e., (1) The study focused only on sub-sector real estate and property, and (2) Our sample period was conducted during 2018-2021. Originality/value examines the effect of controlling share ownership and profitability on cash holdings in the corporate sector, with a focus on the real estate and property sub-sector from 2018 to 2021.

Keywords *Controlling share ownership, Profitability, Cash Holding*

INTRODUCTION

Cash is a part of the asset from a company. The liquidity of the companies is reflected by the amount of cash that they have. The more cash gives the management of company the option to choose the opportunity of profitable projects. However, there is a cash of the companies able to induce the agency conflict between the manager and the shareholder (Huang et al., 2022). Based on asymmetry information, managers tend to use the cash of the companies to their benefit rather than the interest of shareholders. However, the pecking order perspective suggested that companies prefer to use retained earnings or cash to add to their capital structure when considering additional expenses, leading to a reduction in profit. In maximizing profit, the managers of companies prefer to decrease expenses and maintain or increase revenue. Thus, companies perform cash holding to invest in profitable projects. They also hold their cash to maintain their business operations day to day. However, the preference liquidity concept states that investors prefer to choose the firm that is more liquid than others.

A large number of studies have examined that cash holding companies are impacted by several factors, i.e., ownership structure and firm value (Afifa et al., 2021), CEO overconfidence (Aktas et al., 2019), governance structure and firm value (Asante-Darko et al., 2018), over-investment behavior (Bhuiyan & Hooks, 2019), internal control and risk management (Chen et al., 2020), state ownership (Chen et al., 2018), ex post bargaining and executive compensation (Cheng et al., 2022), CEO beliefs (Deshmukh et al., 2021), promoter ownership (Gupta & Bedi, 2020), and

Copyright Holder:

© Aulia, Riki, & Meythi. (2024)

Corresponding author's email: riki.martusa@eco.maranatha.edu

This Article is Licensed Under:



former CEO director ([Li & Lan, 2022](#)). However, the prior literature cannot relate to emerging markets. The literature stated that the capital market is affected by country factors. We explore the effect of controlling ownership and profitability on cash holdings of firms in emerging countries, particularly the Indonesia Capital Market. the Capital Market is controlled by family ownership (conglomerate) and Stated Ownership ([Rezaee et al., 2019](#)). The performance of public firms in Indonesia is influenced by political connections ([Joni et al., 2020](#)). A few public firms in Indonesia have implemented corporate governance ([Martusa et al., 2023](#)).

In international global competition, companies need cash and cash equivalents to operate their business day-to-day. They also require cash to invest in profitable future projects ([Arora, 2019](#)). Companies need to have sufficient cash to cover short-term and emergency funding needs, which can be evaluated by their readiness, adequacy, and freedom to access cash ([Suherman, 2017](#)). An excessive amount of cash can reduce profit opportunities, but having sufficient cash can also help with transactions and investments.

Cash holding within the corporate environment can be assessed from three parameters: readiness, adequacy, and freedom. The readiness indicator of the company's cash indicates that the company has cash reserves that can be used as a medium of payment. The cash adequacy indicator is a situation in which cash reserves are sufficient for transactions to be carried out. The indicator of cash freedom is cash that is always available when needed, especially when the company faces unexpected payments. Companies aim to maintain a balance of cash reserves to meet their needs and maximize profits ([Fernandes et al., 2021](#)).

The companies perform cash holding activities to ensure that they have sufficient cash reserves. Therefore, the company tries to reserve sufficient cash for operational activities, even providing cash reserves with a certain tolerance, so that this trend can be fulfilled ([Astuti et al., 2020](#)). This action allows the company to have a certain cash value in the form of physical assets. This cash value also allows it to be distributed to investors associated with the company ([Gupta & Bedi, 2020](#)).

The real estate and property sector will see a decline in both economic growth and investment realization in 2020. The Investment Coordinating Board recorded a realization of IDR 22 trillion in 2020, which is a decrease from the previous year's IDR 23.7 trillion. This decline in investment indicates that external funding is becoming scarce, making it crucial for companies in this sector to have ample cash reserves to support their operations and maintain stability.

Having good liquidity, as stated by [Sari and Ardian \(2019\)](#), can help companies generate profits by allowing them to have financial flexibility and cash reserves to take advantage of potential negotiation and acquisition opportunities. Adequate cash holdings, as noted by [Astuti et al. \(2020\)](#), are crucial in keeping the company liquid and meeting obligations. Asset liquidity is a target for business management, investors, and financial analysts, and holding an optimal level of liquidity is necessary in the real estate and property sector, as low liquidity levels can result in missed investment opportunities and failure to achieve organizational goals. However, having too much cash can result in increased opportunity costs, according to [Sutrisno \(2017\)](#).

The global recession has emphasized the importance of corporate cash holdings, as companies with more liquidity are better equipped to weather economic downturns ([Arora, 2019](#)). The trade-off theory proposes that firms strive to strike a balance between their cash holdings and profits by considering the marginal costs and profits. According to [Sutrisno \(2017\)](#), the real estate and property sector has experienced a decrease in investment and a sluggish economy, making cash a crucial element for companies to maintain their viability. Adequate cash holdings can lead to higher profits and financial flexibility, allowing companies to take advantage of opportunities.

[Afifa et al. \(2021\)](#) showed that conflicts of interest caused by concentration ownership positively affect cash holdings. Thus, increasing cash holdings of the company decreases the risk of

its day-to-day operational business and meet short-term obligations. However, [Gupta and Bedi \(2020\)](#) show that promoter ownership negatively impacts cash holdings. Based on efficient monitoring hypothesis, a large number of shareholders are able to serve in monitoring the management of company and give added value to the policy of corporate. Their research uses companies in the non-financial sector in India. However, the real estate and property sector requires optimal liquidity holdings to avoid losing investment opportunities and achieve organizational goals. The purpose of this research is to examine the effect of controlling share ownership and profitability on cash holdings companies in the real estate and property sectors of the Indonesia Capital Market.

LITERATURE REVIEW

Cash holding

Holding sufficient cash on hand is crucial for companies to support their day-to-day operations and invest in profitable future projects. The research of [Afifa et al. \(2021\)](#) stated that the management of companies holds the cash in purposing to lower the operational risk and meet short-term targets. However, the concentration of ownership can induce agency conflict and negatively impact cash holding companies ([Gupta & Bedi, 2020](#)). Therefore, the real estate and property sector experienced low economic growth in 2019 and 2020 and saw a decrease in investment realization, indicating a decrease in external capital funding. Companies should consider their cash reserves to finance operational activities ([Suherman, 2017](#)). Good liquidity can lead to profits and financial flexibility for a company, allowing them to take advantage of investment opportunities. Cash holdings, also known as cash and cash equivalents, are crucial for companies to make payments, meet emergencies, and can invest.

Cash is a liquid short-term asset that is essential for a company's operations ([Suherman, 2017](#)). Excess cash provides financial security, but holding too much cash can lead to missed profit opportunities and expense to benefit the shareholder ([Afifa et al., 2021](#)). Managing cash holdings is important for all parties involved in the company, including managers, analysts, and investors. Having tangible assets or receivables is not enough, as running out of cash can result in losses. Companies tend to hold cash to maintain liquidity rather than for payments or investments. Cash is needed for routine daily operations such as buying inventory, paying debts, and financing company operations ([Sari & Ardian, 2019](#)). According to the literature on cash holding, the reasons companies hold cash are as follows ([Gupta & Bedi, 2020](#)).

- a. Personal benefit of company management. The company holds excessively cash to use the resources of company in private target and when the shareholders are highly dispersed.
- b. Precaution motive: The company holds cash as a reserve in case of unexpected expenses in the future.
- c. Speculation motive: Companies hold cash to predict future interest rate increases.
- d. Arbitrage motive: Cash holding is used by companies to profit from differences in fiscal policies between countries.

An excessive amount of liquidity in a company can threaten or negatively affect liquidity so that it can reduce company performance. Conversely, insufficient liquidity can cause difficulties in paying short-term debt ([Suherman, 2017](#)). [Cajias et al. \(2020\)](#) examined the determinants affecting the liquidity of residences in the rental market across cities in Germany using censored quantile regression. The results showed that the development of socioeconomic and its economic effects affected each city. The development comprises population, working population, real GDP, household disposable income, unemployment rate, vacancy rate, and construction activity. Prior

studies also provide empirical evidence that the growth rates of COVID-19 cases affect firms differently through their asset holdings. They use commercial real estate (CRE) assets owned by listed U.S. equity real estate investment trusts (REITs) from January 21, 2020 to April 15, 2020. The findings showed that there is a negative relationship between abnormal return and COVID-19. The firms of retail and residential properties react more negatively among all sectors. However, the performance of the health care and technology sectors correlates positively with COVID-19 ([Ling et al., 2020](#)). Furthermore, we examine cash holdings in real estate because the sector is unique and important in terms of economic and socioeconomic aspects, especially in the Covid-19 pandemic.

Controlling Share Ownership

Controlling shareholders are those who are classified as primary shareholders who control the company. The controlling shareholder has the right to become the controlling shareholder if he owns a number of majority shares in the company ([Sari & Ardian, 2019](#)). Financial performance can be influenced by managerial, institutional, and individual share ownership in large numbers as a form of block-holder ownership. Controlling shareholders can determine strategic decisions, one of which is the tendency to determine the amount of cash.

Institutional ownership is the portion of ownership acquired by institutional owners and shareholders at the end of the year. Institutions are companies engaged in banking, investment, insurance, or other entities that resemble corporations. On the other hand, block owners mean personal ownership of more than 5% on behalf of people who are not part of management ownership. Shareholders can perform management oversight functions or are referred to as central functions. This supervision aims to ensure that shareholders get good and optimal returns ([Sari & Ardian, 2019](#)).

Profitability

Profitability is a measure of a company's success in generating returns from its business activities and provides an overview of operational efficiency in running a business. Operational efficiency is reflected in profits. [Kieso et al. \(2020\)](#) revealed that profitability is an indicator that measures a company's income or operational success over a certain period of time. Investors invest in company shares for profit, which is a combination of income and capital gains. The higher the earnings power, the more profitable it is. The finance manager is responsible for raising the company's capital to maintain inventory and profitability. Profitability can affect a company's cash reserves because when profitability increases, cash reserves actually decrease ([Arora, 2019](#)).

Hypothesis Development

Pecking order theory states that a company must choose between internal and external sources of funding. Companies with a low level of profitability tend to find it difficult to issue equity, which can result in changes from cash holdings. Companies with low profitability rarely make decisions that can affect the amount of cash holdings in the company because they do not have the freedom to increase or decrease the amount of cash as needed ([Astuti et al., 2020](#)). However, there is agency conflict between management and shareholders. Based on asymmetric information, management tends to keep more cash for personal benefit. Therefore, the shareholder gets the expense of the result from the management decision. According to [Afifa et al. \(2021\)](#), when managerial ownership is high, managers tend to act in their own self-interest, often at the expense of shareholders. Furthermore, companies with a high level of managerial ownership tend to hold more cash ([Gupta & Bedi, 2020](#)). [Jebran et al. \(2019\)](#) stated that with strict supervision, all information provided by management must be open and transparent to stakeholders. Transparency automatically discourages management from taking actions that are harmful to the

company. In conclusion, when institutional ownership increases, cash holdings decrease (Gupta & Bedi, 2020).

H1: Controlling share ownership has a significant effect on cash holding.

Based on the pecking order theory, profitability will increase the company's liquidity, which means more internal resources. Increased internal funding can be used by companies in their financial activities, thereby avoiding the risk of uncertain income and reduced liquidity. Firms with a high return on assets indicate strong profitability, increasing their cash reserves (Afifa et al., 2021). High profitability indicates a company's ability to generate high profits for itself. These profits become retained earnings that support the company and increase its cash holdings. Conversely, a less profitable or low profitability company will continue to deplete its cash and rely on debt for funding (Cheryta et al., 2018). According to Yun et al. (2021), a corporation's sales and profits can be increased by establishing a strong cash reserve through effective cash management, resulting in a positive overall cash flow. Cash is a crucial element that allows a business to succeed and thrive. A high level of profits can result in a company having more cash at its disposal. Therefore, the hypothesis is described as follows.

H2: Profitability has a significant effect on cash holding.

Gupta and Bedi (2020) revealed that in the context of influence, institutional ownership influences cash holdings. Managers look out for their own interests rather than giving back to shareholders when the company has poor investment opportunities. On the other hand, the research of Chada and Varadharajan (2023) shows that institutional ownership and profitability affect cash holdings.

According to Gupta and Bedi (2020), when managerial ownership is high, managers tend to prioritize their own interests over those of shareholders. Companies with high levels of managerial ownership also tend to hold more cash. According to this perspective, managers hold onto a large amount of corporate cash as it reduces risk and gives them more discretion. However, having a high amount of cash can also lead to the issue of free cash flow and create a conflict of interest between managers and shareholders, as ownership and control are separated. Some studies have suggested that managerial ownership can align the interests of shareholders and managers because when managers have an ownership stake, they bear the consequences of their decisions.

Other studies have demonstrated that return on assets (ROA) serves as a signal of profitability, demonstrating the company's ability to generate profits using its total assets (Chada & Varadharajan, 2023). An increase in net profit can be an indication that a company can mark its operations using internal funds, so that the company will save a larger amount of cash.

H3: Controlling share ownership and profitability has a significant effect on cash holdings.

RESEARCH METHOD

This research employs a quantitative approach with an archival technique. We use secondary data sources, specifically annual reports obtained from the Indonesia Stock Exchange (IDX). A quantitative approach is a study that proves a theory and hypothesis by numerically measuring search variables and analyzing data using statistical techniques or mathematical models. The quantitative approach is an exploratory approach to test hypotheses by testing the accuracy of statistical data. The dependent variable (Y) is cash holding, and the independent variable (X)

controls share ownership and profitability.

The research population comprises real estate and property companies listed on the IDX during the 2018-2021 period. The researcher chose the population for 2018-2021 because it illustrates company fluctuations because of the COVID-19 pandemic. However, a prior study showed that regulation of social and physical distancing in the Covid-19 pandemic created a change in people's preference from apartments to landed houses (Gamal et al., 2023). The sample is part of the population size and characteristics. Samples were selected using the random sampling method. The sampling criteria in this study are as follows:

1. Real estate and property companies listed on the IDX in 2018–2021 consecutively have not experienced losses.
2. Publish financial reports in IDR currency and have financial reports ending December 31 during the research year, namely, 2018–2021.

The regression equation is formulated as:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \varepsilon_{it} \quad (1)$$

Noted:

- Y_{it} : Cash holding company i at time t;
 X_1 : Total controlling shares of company i at time t;
 X_2 : Profitability of company i at time t;
 t : Fiscal year;
 ε_{it} : Residual error in the regression equation.

FINDINGS AND DISCUSSION

The number of research samples according to predetermined criteria was 20 companies, so that for 4 years of observation, 80 samples were obtained. Based on the central limit theorem, the numbers of samples from this study reflect the distribution normal and population (Gujarati, 2009).

Normality Testing

The normality test was performed using the non-parametric Kolmogorov– Smirnov (KS) statistical test. If the sig value > 0.05, then the data are normally distributed.

Table 1. Normality Test

	Amount	Meaning
Normality sig 0.072 (>0.05)	Sig 0.072 (>0.05)	Normal data distribution

The results of the normality test shown in Table 1 stated that the calculated significance value was 0.072 > 0.05. These results indicate that H_0 is accepted, meaning that the data are normally distributed.

Autocorrelation Test

The autocorrelation test method uses the Durbin–Watson test with the following conditions:

1. If the value of d is less than dL or greater than (4-dL), the null hypothesis is rejected, indicating autocorrelation.
2. If d falls within the range of dU to (4-dU), the null hypothesis is accepted, indicating the absence

of autocorrelation.

3. If d falls within the range of dL to dU or between $(4-dU)$ and $(4-dL)$, a definite conclusion cannot be drawn.

Table 2. Autocorrelation Test

Amount	Value	Meaning
Durbin Watson	1.351	There is no positive or negative autocorrelation

The results of the autocorrelation test shown in Table 2 state that the Durbin–Watson value was 1.351, meaning that this value complied with the requirements $dU < d < 4-dU$ so that it could be concluded that neither positive nor negative autocorrelation occurred.

Multicollinearity Test

Multicollinearity between independent variables can be assessed by examining the inflation variation coefficient (VIF) and tolerance value. If the tolerance value is greater than 0.01 and the VIF value is less than 10, it suggests the absence of multicollinearity.

Table 3. Multicollinearity Test

Score	Amount	Meaning
VIF Controlling Share Ownership	1.006 (<10)	No multicollinearity
VIF Profitability	1.006 (<10)	No multicollinearity

The results of the multicollinearity test shown in Table 3 state that the VIF value is 1.006 <10 for controlling share ownership and profitability variables, meaning that there is no relationship between the independent variables.

Heteroscedasticity Test

The heteroscedasticity test aims to determine the effect of residual homoscedasticity on the data or having a similar variance. This test was carried out using the Glejser test. If the regression coefficient (β) is not significant or $\text{sig} > 0.05$, then there is no heteroscedasticity, which is also called homoscedasticity.

Table 4. Heteroscedasticity Test

Score	Amount	Meaning
X1 regression of residuals	1.000 (>0.05)	There is no heteroscedasticity
X2 regression of residuals	1.000 (>0.05)	There is no heteroscedasticity

Table 4 explains that the sig value is 1.000 for controlling share ownership and profitability variables with $\text{sig} > 0.05$, indicating that there is no heteroscedasticity from the research results.

Simultaneous Test (F-Test)

Based on the results of the simultaneous test, a sig value of $0.002 < 0.05$ was obtained. The test results shown in Table 5 conclude that the simultaneous hypothesis is accepted, meaning that controlling share ownership and profitability have a simultaneous effect on cash holdings.

Table 5. Simultaneous Test

Score	Amount	Meaning
Effect of controlling share ownership and profitability on cash holdings	F = 6.574 Sig = 0.002	Reject H0; Accept H3

Partial Test (T-Test)

Based on the results of the partial test shown in Table 6, it can be concluded that controlling share ownership has a significant effect on cash holdings with a significance value of $0.001 < 0.05$, indicating that H1 is accepted. On the other hand, profitability has no significant effect on cash holdings with a significance value of $0.297 > 0.05$, indicating that H2 is rejected.

Table 6. Partial Test (T-Test)

Score	Amount	Meaning
Effect of the number of controlling shares on cash holdings	T = 3.467 Sig = 0.001	Reject H0; Accept H1
Effect of profitability on cash holdings	T = 1.050 Sig = 0.297	Accept H0; Reject H2

The Coefficient of Determination

The coefficient of determination shown in Table 7 indicates the regression ability to explain the dependent variable. It can be seen from the adjusted R square that can be multiplied by 100%.

Table 7. Coefficient of determination test

Score	Amount	Simultaneous Influence
Adjusted R Square	0.158	15.8%

Based on Table 7, the adjusted R Square value is 0.158, which means that the simultaneous effect of controlling share ownership and profitability is $0.158 \times 100\% = 15.80\%$. Meanwhile, 84.20% is influenced by other variables.

By referring to the results of the partial test, controlling share ownership has a significant effect on cash holding. This agrees with [Afifa et al. \(2021\)](#), where oversight has the aim of guaranteeing shareholders get good and optimal returns. Thus, cash holding in the companies studied tends to depend on the percentage of share ownership of the controlling party, in which the company is given more freedom to have a cash holding value according to the required amount ([Sari & Ardian, 2019](#)).

Improper cash holding in business can result in idle funds or unused cash. Unused funds result in company assets that should be used for investment and produce returns that are less than optimal for investors. In addition, large amounts of idle cash can also cause several other problems that can disrupt company operations ([Astuti et al., 2020](#)).

The research of [Gupta and Bedi \(2020\)](#) explains that a high level of control encourages managers to raise cash in companies in line with the company's need to reduce cash holding

problems. The Board of Directors prioritizes common interests and determines the optimal amount of cash value so that it does not create unexpected risks due to the accumulation of money in the company. In addition, large controlling ownership allows management to reserve sufficient cash for the company. If there is an increase in institutional ownership, the company's cash holdings have the potential to increase.

The partial test results suggest that profitability does not have a significant impact on cash holdings, meaning that a company's profits do not necessarily lead to an increase in its cash holdings. This finding is consistent with [Astuti et al. \(2020\)](#), who found that the amount of cash a company holds is not necessarily linked to its ability to increase or decrease cash as needed, especially in smaller companies.

In general, a company with a high level of liquidity is reflected in its optimal cash holdings, which can help finance the company in times of crisis. The higher the company's cash holdings, the less likely it is to experience financial problems. However, excessive cash holdings can also harm a company's profitability.

The level of cash holdings that a company maintains is not dependent on its profitability, but rather on how much cash it perceives it needs to hold compared to its competitors. Some businesses opt to retain cash and prioritize high-value activities, while others keep cash reserves to increase its use in the future in case of urgent funding needs.

In general, the hypothesis that controlling share ownership and profitability have a simultaneous impact on cash holdings is accepted. This agrees with research by [Gupta and Bedi \(2020\)](#), who found that institutional ownership plays a crucial role in monitoring management, as it encourages better supervision and benefits shareholders. However, institutional ownership's influence as a supervisory agent can be diminished by their significant investment in the capital market.

This agrees with the research of [Chada and Varadharajan \(2023\)](#). ROA as an indication of profitability shows a company's ability to generate profits with the total assets in the company. This research is also in line with the research of [Cheryta et al. \(2018\)](#), who explained that profitability is an indication that a company can mark its operations using internal funds by saving cash in the form of cash holdings.

Although a recession economy incurs worldwide during pandemic covid-19, a study by [Gamal et al. \(2023\)](#) showed that in Indonesia, customers change preference of housing, i.e., from apartment to landed house. Because they must perform social and physical distancing. We choose profitability and cash holding to measure the performance of the listed firms in COVID-19. We also use controlling ownership as a variable because this factor affects listed firms in the Indonesia Capital Market ([Rezaee et al., 2019](#)).

CONCLUSIONS

In this study, we examined the effect of controlling ownership and profitability on cash holding companies. This research utilized companies from the real estate sector. The findings of this research conclude that controlling share ownership influences cash holding. However, profitability affecting cash holding is not supported. However, controlling share ownership and profitability have a simultaneous effect on cash holding. The results support the concept of agency conflict, i.e., shareholders try to monitor managers in using cash of the companies in accordance with the best interest of the shareholder. The other argument is that managers keep the companies' cash to invest in profitable future projects. This agrees with the pecking order theory.

The implications of this research include two factors: practical and theoretical implications. The practical implication provides information to investors related to the motive of managers to use the companies' cash, i.e., to invest in profitable future projects. For example, the projects have

positive NPV. This research contributes to the literature on financial accounting and capital markets, especially relating to controlling share ownership, cash holding, and profitability.

LIMITATION AND FURTHER RESEARCH

This research has several limitations. First, this research was conducted in companies in the real estate and property sector. For example, the companies of the information technology sector had growth in COVID-19. This will be an interesting topic to examine in future research. The result of this research will give different findings if the research is examined in other sectors.

Second, the time horizon of this research was conducted during 2018-2021 periods. If this research is conducted over longer periods, the results will give different results and increase the generalizability of the research. We also suggest investigating cash holding related to the investment of ESG or sustainability factors from the companies. In emerging markets, whether companies have invested in sustainability or ESG in strategic business or not.

REFERENCES

- Afifa, M. A., Saleh, I., & Haniah, F. (2021). Direct and Mediated Associations Among Ownership Structure, Cash Holdings and Firm Value: The Case of Jordanian Insurance Firms. *Vision*, 25(4), 471–482. <https://doi.org/10.1177/0972262920983989>
- Aktas, N., Louca, C., & Petmezas, D. (2019). CEO Overconfidence and the Value of Corporate Cash Holdings. *Journal of Corporate Finance*, 54, 85–106. <https://doi.org/10.1016/j.jcorpfin.2018.11.006>
- Arora, R. K. (2019). Corporate Cash Holdings: An Empirical Investigation of Indian Companies. *Global Business Review*, 20(4), 1088–1106. <https://doi.org/10.1177/0972150919844911>
- Asante-Darko, D., Bonsu, B. A., Famiyeh, S., Kwarteng, A., & Goka, Y. (2018). Governance Structures, Cash Holdings and Firm Value on the Ghana Stock Exchange. *Corporate Governance: The International Journal of Business in Society*, 18(4), 671–685. <https://doi.org/10.1108/CG-07-2017-0148>
- Astuti, N., Ristiyana, R., & Nuraini, L. (2020). Faktor-Faktor yang Mempengaruhi Cash Holding. *Jurnal Ekonomi Bisnis*, 26(1), 243–252. <https://doi.org/10.33592/jeb.v26i1.624>
- Bhuiyan, M. B. U., & Hooks, J. (2019). Cash Holding and Over-Investment Behavior in Firms with Problem Directors. *International Review of Economics & Finance*, 61, 35–51. <https://doi.org/10.1016/j.iref.2019.01.005>
- Cajias, M., Freudenreich, P., & Freudenreich, A. (2020). Exploring the Determinants of Real Estate Liquidity from An Alternative Perspective: Censored Quantile Regression in Real Estate Research. *Journal of Business Economics*, 90(7), 1057–1086. <https://doi.org/10.1007/s11573-020-00988-w>
- Chada, S. & Varadharajan, G. (2023). Earnings Quality, Institutional Investors and Corporate Cash Holdings: Evidence from India. *International Journal of Managerial Finance*, 20(1), 247–277. <https://doi.org/10.1108/IJMF-05-2022-0224>
- Chen, H., Yang, D., Zhang, J. H., & Zhou, H. (2020). Internal Controls, Risk Management, and Cash Holdings. *Journal of Corporate Finance*, 64, 1–20. <https://doi.org/10.1016/j.jcorpfin.2020.101695>
- Chen, R., El Ghoul, S., Guedhami, O., & Nash, R. (2018). State Ownership and Corporate Cash Holdings. *The Journal of Financial and Quantitative Analysis*, 53(5), 2293–2334. Retrieved from <https://www-jstor-org.ezproxy.ugm.ac.id/stable/26592018>
- Cheng, Y., Harford, J., Hutton, I., & Shipe, S. (2022). Ex Post Bargaining, Corporate Cash Holdings, and Executive Compensation. *Journal of Financial and Quantitative Analysis*, 57(3), 957–987. <https://doi.org/10.1017/S0022109020000964>

- Cheryta, A. M., Moeljadi, M., & Indrawati, N. K. (2018). Leverage, Asymmetric Information, Firm Value, and Cash Holdings in Indonesia. *Jurnal Keuangan dan Perbankan*, 22(1), 83-93. Retrieved from <http://jurnal.unmer.ac.id/index.php/jkd>
- Deshmukh, S., Goel, A. M., & Howe, K. M. (2021). Do CEO Beliefs Affect Corporate Cash Holdings? *Journal of Corporate Finance*, 67, 1-25. <https://doi.org/10.1016/j.jcorpfin.2021.101886>
- Fernandes, G., Mendes, L. d S., & Leite, R. d O. (2021). Cash Holdings and Profitability of Banks in Developed and Emerging Markets. *International Review of Economics & Finance*, 71, 880-895. <https://doi.org/10.1016/j.iref.2020.10.018>
- Gamal, A., Rohmah, L., & Muhyi, M. M. (2023). Housing Preference Shifting during COVID-19 Pandemic in Indonesia. *Journal of Urban Management*, 12(3), 268-283. <https://doi.org/10.1016/j.jum.2023.05.002>
- Gujarati, D. N. (2009). *Basic Econometrics* (5th ed.): McGraw-Hill Irwin.
- Gupta, C. P., & Bedi, P. (2020). Corporate Cash Holdings and Promoter Ownership. *Emerging Markets Review*, 44, 100718. <https://doi.org/10.1016/j.ememar.2020.100718>
- Huang, B., Zhang, X., & Bi, Q. (2022). The Nonlinear Effect of Shareholder Ownership Structure on A Firm's Cash Holdings: Type I and Type II Agency Problem Perspectives in China's Split-share Reform. *International Review of Economics & Finance*, 77, 493-504. <https://doi.org/10.1016/j.iref.2021.10.014>
- Jebran, K., Chen, S., Tauni, M. Z., & Ahmad, H. (2019). Corporate Governance, Ultimate Owner, and Target Cash Holdings: Evidence From China. *SAGE Open*, 9(4), 1-12. <https://doi.org/10.1177/2158244019894293>
- Joni, J., Ahmed, K., & Hamilton, J. (2020). Politically Connected Boards, Family Business Groups and Firm Performance: Evidence from Indonesia. *Journal of Accounting & Organizational Change*, 16(1), 93-121. 10.1108/JAOC-09-2019-0091
- Kieso, D. E., Weygandt, J. J., & Warfield, T. D. (2020). *Intermediate Accounting: IFRS Edition* (4th ed.). Hoboken, New Jersey: John Wiley & Sons, Inc.
- Li, M. & Lan, F. (2022). Former CEO Directors and Cash Holdings. *Economic Analysis and Policy*, 75, 320-334. <https://doi.org/10.1016/j.eap.2022.05.009>
- Ling, D. C., Wang, C., & Zhou, T. (2020). A First Look at the Impact of COVID-19 on Commercial Real Estate Prices: Asset-Level Evidence. *The Review of Asset Pricing Studies*, 10(4), 669-704. Retrieved from <https://doi.org/10.1093/rapstu/raaa014>
- Martusa, R., Joni, J., & Setin, S. (2023). *Tata Kelola Perusahaan: Sebuah Perspektif Sustainability* (1st ed.). Yogyakarta: Andi Offset.
- Rezaee, Z., Tsui, J., Cheng, P., & Zhou, G. (2019). *Business Sustainability in Asia: Compliance, Performance, and Integrated Reporting and Assurance*. Hoboken, New Jersey: John Wiley & Sons, Inc.
- Sari, D. M. & Ardian, A. (2019). A Cash Holding, Cash Flow dan Profitabilitas: Studi pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia. *Jurnal Dinamika Akuntansi dan Bisnis*, 6(1), 29-38. <http://dx.doi.org/10.24815/jdab.v6i1.12142>
- Suherman, S. (2017). Faktor-Faktor yang Mempengaruhi Cash Holdings Perusahaan di Bursa Efek Indonesia. *Jurnal Manajemen*, 21(3), 336-349. <https://doi.org/10.24912/jm.v21i3.255>
- Sutrisno, B. (2017). Hubungan Cash Holding dan Nilai Perusahaan di Indonesia. *Jurnal Dinamika Akuntansi dan Bisnis*, 4(1), 45-56. <https://doi.org/10.24815/jdab.v4i1.6340>
- Yun, J., Ahmad, H., Jebran, K., & Muhammad, S. (2021). Cash Holdings and Firm Performance Relationship: Do Firm-Specific Factors Matter? *Economic Research-Ekonomska Istraživanja*, 34(1), 1283-1305. <https://doi.org/10.1080/1331677X.2020.1823241>