

# COVID-19 and Corporate Cash Holdings in Indonesia

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## *Abstract*

*The COVID-19 outbreak highly affected the continuity of public firms. Cash holding decisions are one of the captivating issues in the corporate finance area during the COVID-19 pandemic. This study examines the difference in cash holding levels before and after the COVID-19 pandemic. Public firms included in the LQ45 index are examined. By employing a paired-samples t-test, the results show a significant difference in cash holding level before and after the COVID-19 pandemic exists. This result supports the precautionary motive for saving cash amid the COVID-19. This study implies that the managers should increase the cash holding level during the COVID-19 pandemic.*

**Keywords:** *COVID-19, cash holdings; precautionary motive*

**JEL Classification:** G31, G32

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## Introduction

The outbreak of COVID-19 was announced as a pandemic by the World Health Organization on 11 March 2020. The outbreak of COVID-19 influenced economies and provided challenges to firms and individuals. Fu and Shen (2020) stated that most firms decreased in performance. Many public companies experienced falling share prices (Phan and Narayan, 2020). COVID-19 increased the default risk for many firms by directly affecting firms' stream of future cash flow and simultaneously increasing their rollover risk (Acharya and Steffen, 2020).

Corporate liquidity management is one of the interesting issues during the COVID-19 pandemic. Cash is the most liquid asset for a firm. The availability of cash affects its liquidity and shows its ability to fulfill all of its obligations on time. In addition, the availability of cash can also help increase sales and company profit. Cash holding is cash in hand or readily available to be invested in physical assets and distributed to investors (Gill and Shah, 2012). Cash holdings play a pivotal role amid the COVID-19 attack. This shock increased liquidity risk for many firms and generated an unprecedented increase in the demand for liquidity for affected firms (Almeida, 2021).

Lian et al. (2011) and Sutrisno and Gumanti (2016) found that firms hold more cash during the global financial crisis. Song and Lee (2012) concluded that firms hold more cash during the Asian financial crisis. From a different point of view, Sutrisno (2017) showed that a linear relationship exists between cash holding and firm value. Meanwhile, Sutrisno (2018) revealed that stock liquidity has a positive and significant effect on cash holding.

Few studies investigated the link between COVID-19 attack and corporate cash holding (De Vito and Gomez, 2020; Qin et al., 2020). De Vito and Gomez (2020) investigated how the COVID-19 could affect the liquidity of listed firms across 26 countries. Qin et al. (2020) examined the impact of COVID-19 on firm-level cash holdings in China. The need for researching this issue in another emerging market, such as Indonesia, is essential to investigate the behavior of corporate cash holding during the pandemic.

The rest of this paper is arranged as follows. The following sections present the literature review, research methods, results, and discussion. The last section concludes this article.

## Literature Review

One of the most critical corporate financial decisions is corporate cash holding decision (Ye, 2018). According to Opler et al. (1999), there are three motives for companies to hold cash, namely the transactional motive, the precautionary motive, and the speculative motive. Acharya et al. (2012) documented a positive correlation of corporate cash holdings with credit spreads and with the long-term probability of default. During the COVID-19 pandemic, businesses were forced to halt operations due to the quarantine program, resulting in a substantial drop in revenue. Meanwhile, some fixed costs were increasing. These factors exacerbated the cash flow situation of firms.

Managers need to raise the cash holding level. Since COVID-19 brought short-term uncertainties into operating activities, they must keep the necessary liquidity level of the firms to finance fixed costs and expenses. Holding a certain amount of cash would assist companies in maintaining liquidity for emergencies, avoiding the need for external financing (Opler et al., 1999). Managers, on the other hand, must increase the level of cash holdings in advance to prevent the cash gap caused by loan restrictions due to different external financing capacities of companies. Firms can mitigate refinancing risk by increasing their cash holdings and saving cash from cash flows (Harford et al., 2014).

Lian et al. (2011), Song and Lee (2012), Sutrisno and Gumanti (2016) showed that firms hold more cash during the financial crisis than in normal times. De Vito and Gomez (2020) found that the average firm would exhaust its cash holdings in about two years. Qin et al. (2020) concluded that COVID-19 has a significant positive impact on cash holdings in serious-impact industries.

Thus, the research hypothesis is:

H1: There is a significant difference in the cash holding level before and after the COVID-19 pandemic.

## Research Methods

This study selected nonfinancial firms included in the LQ45 index for years 2019 and 2020.

The firms must have complete data for the research period. The final sample used in this study was 32 public firms. Cash holding data were collected quarterly from the first quarter of 2019 to the fourth quarter of 2020. Cash holding is measured by using the ratio of cash and cash equivalent to total assets. This research collected the data from the IDX website.

This study employs a paired-samples t-test to test the research hypothesis. SPSS Statistics 22 was used to conduct the analysis. Since the pandemic mainly affected the first quarter of 2020, this study compares the cash holding level between pre-pandemic (from the first quarter of 2019 to the fourth quarter of 2019) and post-pandemic (from the second quarter of 2020 to the fourth quarter of 2020).

## Results and Discussions

Table 1 provides summary statistics of cash holding levels for the observation period. The average cash holding level is 0.086, indicating that firms' cash holding amounts to about 8.6% of their total assets. This is under the average cash holding ratio of 16.8% reported by De Vito and Gomez (2020). The maximum value is 32.5%, the minimum value is 0.3%, and the standard deviation is 3.101, indicating that the cash holding level of firms is highly different.

**Table 1 Summary Statistics**

	Minimum	Maximum	Mean	Standard Deviation
Cash Holding Level	0.003	0.325	0.086	3.101

As shown in Table 2, the cash holding level was significantly higher during the post-COVID-19 pandemic than in the pre-COVID-19 pandemic at a 5% level. This finding is in line with Qin et al. (2020), who found the increasing trend in cash holding level in the post-COVID-19 pandemic. This finding is also similar to Lian et al. (2011), Song and Lee (2012), Sutrisno and Gumanti (2016), who documented that firms hold more cash during Asian financial crisis or global financial crisis. This finding demonstrates the precautionary motive of holding cash during the COVID-19 pandemic. Firms tend to increase the cash holding level to maintain their liquidity level.

**Table 2 Comparison of Cash Holding Level  
between Periods of the Pre- and Post-COVID-19 Pandemic**

	Mean	Mean Differences	Sig. (2-tailed)
Post-COVID-19	0,158	0,127	0,024
Pre-COVID-19	0,031		

### Robustness Check

Table 3 displays the robustness test by using alternative cash holding measurement. Following Qin et al. (2020), this study measures cash holding using the ratio of cash and cash equivalent to operating income. The results are consistent with Table 2.

**Table 3 Robustness Check**

	Mean	Mean Differences	Sig. (2-tailed)
Post-COVID-19	0,102	0,091	0,043
Pre-COVID-19	0,011		

### Conclusions

This article investigates the difference in the cash holding level of Indonesian firms before and after the COVID-19 pandemic. This research documented a significant difference in the cash holding level before and after the COVID-19 pandemic. It emphasizes the precautionary motive for holding cash and that more companies opt to increase the level of cash holding to alleviate systemic risks.

The pandemic condition remains critical at the moment. When confronted with a volatile economic condition and a tight cash balance, firms must adapt their business strategies promptly. The companies should prioritize changes in cash holdings, cost management, and the expansion of financing sources. The lenders' sources and size of debt funding would be reduced in the case of the COVID-19 pandemic, and there could be inadequate and late financing. As a result, managers should communicate with stockholders in time to gain cash flow assistance and then

have a high amount of cash holding to deal with unexpected risks.

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