

Print ISSN: 2288-4637 / Online ISSN 2288-4645  
doi:10.13106/jafeb.2023.vol10.no1.0067

# The Impact of Corporate Governance on Cash Holdings in the Context of Oman

Nizar DWAIKAT<sup>1</sup>

Received: October 10, 2022 Revised: January 06, 2023 Accepted: January 15, 2023

## Abstract

This study investigates the impact of corporate governance (defined as companies' ownership structure and board of directors' characteristics) on cash holdings in the context of Oman. This study leverages a quantitative panel pooled regression on a dataset of Omani non-financial firms from 2009–2015. The findings of this study are generally in line with the predictions of Agency Theory and Mentoring and Busyness Hypotheses. The analysis demonstrates that a large stockholder size has a significant positive relationship with cash holding. Meanwhile, a positive (but insignificant) relationship was also found between institutional ownership and cash holding. Furthermore, state ownership was found to exhibit a significant negative relationship with cash holding. In terms of the board of directors' traits, this study's findings suggest that board sizes have a positive (but insignificant) relationship with cash holding. Furthermore, busy and independent boards were found to have a significant positive relationship with cash holding. The above findings suggest that boards with such traits are less effective in providing oversight on managers' actions, which would then increase Omani non-financial firms' cash holdings.

**Keywords:** Cash Holding, Institutional Ownership, Agency Costs, Corporate Governance

**JEL Classification Code:** G30, G39, G40

## 1. Introduction

Various explanations have been proposed for the motivations of companies to maintain cash. The existing studies in the literature assert that there are two main incentives for cash keeping: transaction costs and precautionary incentives. The transaction cost incentive indicates that companies counter insufficient internal funds by raising resources through selling assets, issuing new stocks or debt instruments, or reducing the distribution of dividends. However, these approaches contain costs that have both variable and constant elements. Therefore, one may anticipate that companies that can bear great

transaction costs will maintain a large chunk of cash or more liquid assets. Based on this perspective, raising outsider funds costs more in the existence of information asymmetry between companies and outsider capital providers (Myers & Majluf, 1984). Moreover, raising external funds may also be restricted by other factors such as agency conflicts, underinvestment and assets replacements, and other financial limitations (Myers, 1997). Therefore, any attempts to reduce the costs related to outsider funds in incomplete capital markets may prompt the management to find it optimal to keep enough insiders' financial flexibility (Ozkan & Ozkan, 2004).

On the other side, the precautionary incentive puts more weight on the cost arising from sacrificed investing chances. Based on this view, companies pile funds to meet any unexpected emergencies that may arise and to fund investments should the cost of other sources of financing be too exorbitant (Brown et al., 2011). Furthermore, cash reserves grant firms a source of financial independence and keep the firm's operations independent from outsider intervention. Cash reserves also enable firms to develop a comprehensive extension policy without obvious costs (Boubaker et al., 2013). Therefore, precautionary reasons

<sup>1</sup>First Author and Corresponding Author. Assistant Professor and Acting Director, Business Faculty, Arab Open University – Palestine Branch, Palestine. [Postal Address: 3 AlSheikh Hasan Salameh Street, Sateh Marhaba, Al-Bireh, Palestine]  
Email: nizar.dwaikat@aou.edu.ps

© Copyright: The Author(s)  
This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<https://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

prompt companies to store cash to utilize insider's reserves, effectively benefitting from the available profitable growth chances while saving transaction costs and hedging against future funds shortages (Attig et al., 2009). However, there are possible negative impacts of cash maintenance. The gist of this negative impact is due to agency problems that may arise between stockholders and management when corporations harbor large free cash flows. In this instance, the management team may follow its private interests at the expense of stockholders by overinvesting cash in value-destroying acquisitions or by extracting private benefits.

This study hypothesizes that agency conflicts may affect the tendency to stockpile cash in the Omani context. The extent of agency problems can be reduced through external and internal corporate governance mechanisms. External mechanisms represent the controls external stakeholders practice over the company, such as market control (e.g., labor) and capital provision. Meanwhile, internal mechanisms encompass things like providing oversight through the board of directors and internal auditing, which may be amplified in the presence of large stockholders with vested interests. For instance, Lasfer (2006) proposes that corporate governance mechanisms like board composition and the size of the board can be perceived as effective methods to reduce agency problems. This is because the strength of comprehensive corporate governance depends on both kinds of control tools – ownership structure and board of directors. Hence, this paper sets to examine both tools – ownership structure (ownership concentration, institutional ownership, and state ownership) and board of director's characteristics (independence of board, size of board, and multiple directorships) – in the context of Oman. As argued by Harford et al. (2008), these tools of governance prevail over others when it comes to controlling agency conflicts within a company. For this reason, utilizing multiple mechanisms of governance offers a more comprehensive understanding and permits us to gauge their differential effects on cash preservation.

## 2. Literature Review

Agency Theory states that companies with high levels of free cash flows may be prone to the outcomes of agency problems if such cash is not utilized to fund profitable projects (Jensen, 1986). Firms' management may pursue their interests through stockpiling cash to gain discretionary authority, leading to the rise of agency problems among management and stockholders. According to Chen (2008), management enjoys greater discretionary authority in corporations that maintain great levels of cash. In line with this, Myers and Rajan (1998) asserted that management maximizes its interests, regardless of the company's objectives. Consequently, holding other things constant, management in companies that maintain

huge reserves of cash may be perceived as self-opportunistic, making agency problems more probable.

Moreover, the Free Cash Flows Hypothesis espoused by Jensen (1986) predicts that stockholders will opt to restrict the firm's management's access to free cash flow to reduce agency problems. There is a major tradeoff in this hypothesis in that stockholders must strike a balance between endowing enough internal funds for the management to effectively finance all profitable projects while not giving surplus money that permits them to finance projects, acquisitions, and consumptions that favor the latter at the expense of former. Without such control, it is highly unlikely – if not impossible – to persuade self-interested management to distribute the cash reserves to stockholders. Generally, management will favor spending in the short run and discount the possibility of greater investments in the future. It is acknowledged that the quantity of cash maintained by a company plays a significant role in offering fluidity in its operating processes. However, the ultimate aim of cash holdings must be balanced between keeping fluid assets within the firm and the firm's profitability. This is because preserving assets with high liquidity may impact companies' profitability (Ullah et al., 2014).

## 3. Hypotheses Development

### 3.1. Ownership Concentration and Cash Holding

In emerging markets like Oman, concentrated ownership is more apparent than in advanced economies such as the UK and USA, where diffused ownership structures are more popular (Shehata, 2015; Dwaikat & Queiri, 2014). Controlling stockholders, in general, have a sizable portion of ownership of their own companies. This may give motivations for the stockholders to provide oversight for the actions and behaviors of managers. Besides that, such investors have enough time, competence, and resources to review firms' operations and processes. For this reason, they are more familiar with the firms' affairs than small stockholders (Anderson & Hamadi, 2009). This strict monitoring of managers results in the limitation of anticipated agency problems within the firm. Therefore, it is expected that cash hoarding in the presence of large stockholders will be less likely, as large stockholders would naturally intend to remove free cash flows from the hands of managers through various means, such as encouraging the management to declare dividends to them.

However, the presence of large stockholders may result in other forms of agency problems in firms with minority stockholders, especially when the former pursues their interests at the expense of the latter (Shleifer & Vishny, 1997). For example, large stockholders may exert costs on other minority stockholders in the form of expropriation of wealth (Ginglinger & Saddour, 2012). As stated by Pinkowitz et al. (2006), liquid assets could be transferred into private benefits

at fewer costs compared to non-liquid ones. For this reason, it may be anticipated that large stockholders have the incentive to overinvest in such assets, enabling them to expropriate private benefits at the expense of small stockholders. This is in line with theoretical predictions of Agency Theory that is also supported by empirical proofs (Anderson & Hamadi, 2009; Dittmar et al., 2003; Ivalina & Lins, 2004). Based on the above discussion, the non-directional hypothesis for this study may be stated as follows:

*H1: There is a significant relationship between the presence of large stockholders and cash holding.*

### 3.2. Institutional Ownership and Cash Holdings

Institutional ownership refers to the stocks owned by companies such as banks, insurance firms, pension funds, and others. Such investors, in general, would hold a considerable portion of a firm's stocks. As a result, institutional investors have more incentives to closely monitor and actively oversee managers' actions and behavior vis-à-vis small stockholders. Besides that, institutional investors have enough resources and experience to apply strict monitoring of managers' actions (Shleifer & Vishny, 1986). Consequently, it is expected that agency problems within a firm to be diminished with the presence of institutional investors in the ownership structure. Therefore, these investors may resort to limiting cash reserves within the firm through various means such as distributing the cash to stockholders, which would in turn, minimizes the possibility of potential agency conflicts. Naturally, one would anticipate that there is a negative impact of institutional ownership on cash holdings, a view that has harbored empirical support by researchers (Taufil Mohd et al., 2015).

However, the Trading Hypothesis states that institutional investors trade their stocks aggressively to take advantage of the probability of short-run gains. Therefore, repeated big-size trading of the stocks produces short-run price pressures that would in turn, cause fluctuations in the stock prices (Brown et al., 2011). This hypothesis is supported by the findings of Bushee and Noe (2000), who assert that institutional investors with short-run concentration and great portfolio turnover may contribute to the high fluctuations in stock returns. Furthermore, the researchers' findings point out that institutional investors who supply long-run capital to companies demonstrate an opposing impact. In other words, greater stock market uncertainty makes the company's external funding highly costly – especially equity financing – in the form of greater direct costs (Eckbo et al., 2007). The presence of aggressively trading institutional investors in the company's ownership structure puts extra financial restrictions, encouraging the precautionary holding of cash. Therefore, based on this hypothesis, it is expected that the relationship between institutional investors and cash

reserves to be positive. This hypothesis has been empirically supported by Brown et al. (2011). That being the case, the second non-directional hypothesis for this study may be stated as follows:

*H2: There is a significant relationship between institutional ownership and cash holding.*

### 3.3. State Ownership and Cash Holding

Generally, the prevalence of government ownership is relatively high in emerging markets (Do Thi, 2018). The presence of state ownership in the ownership structure of a company should not be perceived as an indication that the company is free of agency conflicts. Agency conflicts may still prevail, firstly due to the separation of ownership and management, and secondly, because in such a company, there is no single individual who owns large portions of stocks and has strong incentives to monitor the manager's behavior (Peng et al., 2016). In addition, assessments in companies with state ownership may be carried out based on attaining political milestones instead of wealth maximization. Furthermore, state ownership is also related to weaker corporate governance and performance and acute moral hazard problems (Do Thi, 2018; Shleifer & Vishny, 1997). From this evidence, it may be said that firms with frail corporate governance are liable to higher agency costs and would intend to keep more cash (Harford et al., 2008, 2012). It may also be expected that managers in such firms are more likely to maintain cash to enable them to enlarge their companies while indulging in various misbehaviors. Okuda et al. (2010), on the other hand, show that state-owned firms incur fewer debts in the long run so that they may save more cash to fund future growth at lower risks and costs. Besides that, Ben-Nasr et al. (2012) mentioned that the existence of state ownership in the ownership structure of firms increases funding costs due to agency problems and information asymmetry. This assertion is supported by the findings of Chen and Nash (2015) and Paskelian et al. (2010), who also found that state ownership has a positive and significant effect on a firm's cash holdings.

However, the Precautionary Incentive Theory argues that corporations hold cash to hedge against future risks of cash shortage. This may not be the case in firms with state ownership, where political linkages allow them to obtain funds at lower costs (Do Thi, 2018). According to Borisova et al. (2012), such companies face fewer problems in securing funds and have easier access to external financial resources. This point is supported by Nguyen et al. (2012), whose findings indicate that state-owned firms have a high debt ratio compared to non-state ones. Therefore, it is expected that the former will keep fewer cash reserves compared to the latter. The findings of Do Thi (2018) and Megginson et al. (2014), on the other

hand, show that state ownership leads to fewer cash reserves. Similar findings have been made by Kusnadi et al. (2015), who suggested that state-controlled companies maintain less cash compared to their non-state-controlled counterparts. Based on the above discussion, it may be hypothesized that:

*H3: There is a significant relationship between state ownership and cash holding.*

### 3.4. Board Size and Cash Holdings

The existing literature indicates that the size of the board may improve its effectiveness in carrying out its main role of providing oversight and advice. On the one hand, several authors have stated that having more members on the board will increase its efficiency in monitoring management. This would in turn limit or minimize the possibility of agency problems arising within the firm, as large boards are typically more diverse in terms of views, skills, and external linkages to the firm. As stated by Al-Najjar and Clark (2017), the size of the board is significant in influencing a company's decisions, particularly in finance-related matters. Nonetheless, others have indicated that large boards are less effective in overseeing managers due to the "free riders" problem among its numerous members. Moreover, high costs related to coordination, cooperation, and communication among large board members may also contribute to decreased efficiency, effectively making the board less potent in combatting agency conflicts.

Some researchers believe that small boards are more effective in monitoring the management, as they do not suffer from the free rider problems. Small boards may anticipate the rise or existence of agency conflicts at lower levels of management (Raheja, 2005). Since increasing the amount of cash holding may lead to an increase in agency problems within firms with self-interested managers (Jensen, 1986), more active boards are expected to remove excess free cash flows (e.g., by paying dividends) to minimize potential misbehaviors by managers, effectively prohibiting or reducing agency conflicts. Therefore, it may be hypothesized that the relationship between board size and cash holdings is negative, as small boards are more active in providing oversight compared to large ones. However, such a relationship may also be positive if the board is less active in monitoring the manager's behavior. Al-Najjar and Clark (2017) report that the relationship between the size of the board and cash holdings is negative and significant. Meanwhile, Taufil Mohd et al. (2015) and Boubaker et al. (2013) found that the size of the board has no impact on cash holdings. Based on the above discussion, it may be hypothesized that:

*H4: There is a significant relationship between board size and cash holding.*

### 3.5. Independence of Board and Cash Holdings

Board composition is mostly utilized in former studies to reflect their independence (Coles et al., 2014; Raheja, 2005). The presence of external directors on the board of directors is seen as a key oversight mechanism to monitor managers' actions and behaviors, as these external directors would usually leverage strict oversight policies (Al-Najjar & Clark, 2017). External directors, unlike other types of members on the board, possess no financial interests in the company other than the fees linked to their directorship. This lack of vested interest prompts them to exercise fully objective monitoring of managers (Adams et al., 2010). Furthermore, the interests of such directors lie in improving the company's human capital, which is neatly connected to their reputation as independent experts in the labor market pool (Fama & Jensen, 1983). Besides that, in the context of markets with ownership concentration (like Oman), the existence of external directors may strengthen the protection of minority stockholders, who have practically no tools of control over the company (Jebri, 2013). In line with this, external directors become efficient in environments where the risk of expropriation by large external investors is more imminent (Dahya et al., 2008).

In support of the above discussion, the findings by Yeh and Woidtke (2005) indicated that a company's value declines in tandem with the percentage of directors who represent the interests of large stockholders in the Taiwanese context. Based on the prevailing stance in the literature, that independent directors are excellent tools of governance; one may argue that such directors will remove or limit large cash holdings from the hands of managers to minimize any agency problems. Therefore, it may be expected that the relationship between board independence and cash holdings to be negative. The results by Boubaker et al. (2013) and Okuda et al. (2010) largely supported this, while Al-Najjar and Clark (2017) found that the independence of the board has no effect on cash holdings. From the above discussion, the following hypothesis may be formulated:

*H5: There is a significant relationship between board independence and cash holding.*

### 3.6. Busy Directors (Directors Holding Multiple Directorships) and Cash Holdings

Busy directors can be defined as those who hold directorships on multiple firms' boards. In the literature, there are two strands of thought on whether these directors improve or handicap the effectiveness of the board in performing its main roles – providing oversight and advice for management. On the one hand, the Busyness Hypothesis predicts that board members with multiple directorships are usually busy

with the responsibilities and roles they assume (Field et al., 2011). Therefore, they may not have enough time to exercise strict monitoring of management's actions. In line with this, the results of a study by According to Jiraporn et al. (2009), directors who are overcommitted to other activities are more likely to miss board meetings. Therefore, one may anticipate that the agency problem is more severe in such firms with busy boards, as the overall board efficiency has been reduced.

Other authors (Attig et al., 2006) mentioned that busy directors can be particularly hurtful in cases of concentrated ownership. In such an ownership structure, asymmetric information is relatively prevalent, permitting large stockholders to hide their flagrant behaviors from others (Attig et al., 2006). Therefore, one can expect that busyness of the board may contribute to sizable agency problems, allowing the discretionary utilization of company funds. In other words, the presence of the busy board of members may bring about great quantities of cash in hands of large stockholders or managers. From this observation, one may hypothesize that the relationship between the existence of busy directors and cash holdings is positive. This is a hypothesis that has been supported by the findings made by Tarkovska (2013) where the researcher reported that companies with busy directors tend to keep higher levels of cash.

On the other hand, some experts argue that busy directors may improve board efficiency. This is because these directors become subject matter experts since they serve on various boards, gaining more diverse experiences, opinions, backgrounds, and knowledge in the process. These directors may also bring into the company different methods of management and external linkages to the business environment. As a result, they contribute to increased board efficiency in providing monitoring of managers, while subsequently minimizing agency conflicts (Fich & Shivdasani, 2006). This is the basis for the opinion of certain researchers that there is a negative relationship between busy directors and cash holdings, as they actively monitor managers and remove excess free cash flows or restrict cash reserves from the hands of managers. Boubaker et al. (2013) concluded that busy directors exhibit a significantly negative relationship with cash holding. From the above discussion, one may hypothesize the following hypothesis:

**H6:** *There is a significant relationship between busy directors and cash holding.*

### 3.7. Control factors

This study leveraged several control factors that may be found in the literature to ensure that the statistical results are significant. The controls include the firms' sizes, growth chances, leverage ratio, profitability, and dividend policy

(Al-Najjar & Clark, 2017; Ginglinger & Saddour, 2012; Thu & Khuong, 2018).

## 4. Research Methods

### 4.1. Research Design

This study applies both panel data estimations (pooled regression with clustered errors to capture group impacts) and Instrumental Variable (IV) regression technique. This study also utilized the two-stage least square (2SLS) model to control for the possible endogeneity in corporate financial policies (such as payout dividend policy and capital structure) and corporate governance. The choice of research design used for this study largely follows Al-Najjar and Clark (2017) with the incorporation of the lagged value of payout dividends ratio, leverage ratio, and board of directors' characteristics as instruments.

However, the diagnostic tests showed that there is no endogeneity issue present in the model. The results in Table 4 indicate that the null hypothesis of Sargan and Basman's tests of over-identification cannot be rejected as the  $p$ -value is insignificant at the 5% confidence level. We may therefore conclude that our model does not suffer from a misspecification issue. Furthermore, Table 4 presents the values for Wu-Hausman and Durbin tests for endogeneity, where the figures suggest that the null hypothesis cannot be rejected. This is because the endogeneity tests are insignificant at the 5% confidence level. From here, it may be said that the dividend policy and leverage ratio may be treated as exogenous factors, not endogenous. Moreover, such results indicate that the panel pooled regression (OLS) is consistent and that there is no need to use instrumental variables or the 2SLS estimation.

### 4.2. Sampling Procedures and Data Collection

The sample used in this study was derived from the Omani stock market. Specifically, the samples were selected from the market's 30 indexes for the period between 2009 to 2015. Only non-financial firms (industrial and services) were incorporated in this study. Furthermore, firms with substantial missing data were excluded, leaving a final sample of 14 firms. Data on the board of directors' traits and firms' ownership structure were collected from annual reports that were published on the Omani stock market's website or the respective firms' websites. On the other hand, information on the financial factors was retrieved from the Bloomberg database. Should the required information be unavailable via Bloomberg, the firms' annual reports were revisited. Otherwise, if the information was still unavailable from the two sources above, the data was recorded as missing. Methods used to measure the variables are presented in Table 1.

**Table 1:** Summarizes of Measurement of Variables Incorporated in this Study

Variable Name	Code In	Measure	Source
Independence of Board	INDP	Numbers of external directors on the board divided by the total number of member's board	Hand collected from the annual report
Size of board	BS	Total number of members on boards	Hand collected from the annual report
Busy directors	MDS	Total number of members who at least have other seat membership on the other boards divided by the total number of members of the board	Hand collected from the annual report
Ownership of state	STOW	5% and above owned by the government	Hand collected from the annual report
Institutional ownership	IOW	The sum of ownership 5% and above owned by institutional like banks insurance firms or companies	Hand collected from the annual report
Ownership concentration	OWC	5% And above own by external owners	Hand collected from the annual report
Company size	Fsize	Nature logarithm of total assets	Bloomberg database
Leverage	Leverage	Total debt dividend total asset	Bloomberg database
Dividend payout ratio	divid	Dividend/net income	Bloomberg database
Profitability	ROA	Net income divided by total assets	Bloomberg database
Growth	GRWOTH	Sales growth = sales at current year-former year/ sales former year	Bloomberg database
Cash holding	cashEQVAN	Cash and equivalent cash / total assets minus cash and cash equivalents.	Bloomberg database

### 4.3. Data Analysis

This study utilized a panel-pooled regression to test the study's hypotheses. Firstly, the existence of heteroscedasticity was diagnosed using the Breusch-Pagan/Cook-Weisberg test. The null hypothesis for this test is that the variance in the error term is constant ( $H_0$ : Constant variance). Table 4 shows that heteroscedasticity exists in the model, as the reported  $P$ -value is less than the 5% confidence level. Therefore, this study estimated the panel pooled regression model with clustered errors for firm ID to correct for heteroscedasticity and capture the group impacts, following Al-Najjar and Clark (2017). Moreover, potential multicollinearity issues were assessed via analysis of variance inflation factors. The findings in Table 4 indicate that multicollinearity is not present as their values do not exceed 10.

## 5. Results

To test the study hypotheses, panel-pooled regression models were run using Stata Software Version 14. From the significance tests, one could decide whether to accept (support) or reject the suggested hypotheses (Tables 2 and 3).

**Table 2:** Descriptive Statistics

Variables	Obs	Mean	Std. Dev.	Min	Max
cashEQVAN	97	0.012	0.145	-0.489	0.328
Leverage	98	23.603	21.933	0	77.84
Divid	88	0.074	0.096	0	0.807
IOW	98	43.751	16.994	0	84
STOW	98	13.256	21.666	0	70
OWC	98	36.114	16.19	10.83	70
BS	98	7.571	1.668	5	12
INDP	98	78.559	28.594	0	100
MDS	98	59.227	29.794	0	100
ROA	98	9.414	8.021	-8.242	38.459
GRWOTH	82	0.181	0.769	-0.899	5.482
F size	98	18.357	1.263	15.909	20.542

Factors as defined in Table 1.

According to Table 4, large stockholders are found to be significantly positively related to cash holding, supporting H1. Meanwhile, institutional ownership is found to be positively related to cash holding. However, this relationship is insignificant, rendering H2 to be not

**Table 3:** Matrix of Correlation

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) cash_EQVAN	1											
(2) Leverage	0.219	1										
(3) divid	0.005	-0.217	1									
(4) IOW	-0.058	-0.177	0.136	1								
(5) STOW	-0.410	-0.424	0.325	0.331	1							
(6) OWC	-0.142	-0.294	0.186	0.723	0.555	1						
(7) BS	-0.016	0.443	-0.022	0.238	0.054	0.206	1					
(8) INDP	0.362	0.323	0.129	-0.117	0.073	-0.192	0.285	1				
(9) MDS	0.492	-0.176	0.206	-0.402	-0.159	-0.368	-0.655	0.093	1			
(10) ROA	0.039	-0.616	-0.053	-0.063	0.014	0.080	-0.207	-0.144	0.099	1		
(11) GRWOTH	0.052	-0.005	-0.226	-0.422	-0.148	-0.228	-0.109	0.149	0.098	0.454	1	
(12) Fsize	-0.109	0.245	-0.096	0.225	0.337	0.473	0.384	0.002	-0.290	-0.289	-0.296	1

**Table 4:** Analysis of Panel Pooled Regression

Cash_EQVAN Variables	Two-Stage Least Squares (2sls)		Panel-Pooled Regression		
	Coefficient	t-value	Coefficient	t-value	(VIF)
Leverage	0.0000861	0.10 (0.919)	0.0002068	0.33 (0.749)	4.964
Divid	-0.2159753	-1.21 (0.226)	-0.1789277	-2.50 (0.027)**	1.652
IOW	0.0010032	1.15 (0.249)	0.0010079	0.75 (0.464)	3.384
STOW	-0.0041875	-7.88 (0.000)***	-0.0040173	-5.35 (0.000)***	2.797
OWC	0.0048406	4.99 (0.000)***	0.0033518	2.00 (0.067)*	4.583
BS	0.0190424	2.66 (0.008)***	0.0115476	1.23 (0.242)	3.365
INDP	0.0024323	7.68 (0.000)***	0.0018502	3.11 (0.008)***	1.81
MDS	0.0030738	7.23 (0.000)***	0.0027061	3.85 (0.002)***	3.287
ROA	0.004785	2.01 (0.040)**	0.0035	1.82 (0.092)*	3.356
GRWOTH	0.0109588	0.38 (0.702)	-0.0167078	-1.78 (0.099)*	2.315
Fsize	-0.0253251	-2.36 (0.078)**	-0.0112034	-0.72 (0.483)	2.61
Constant	-0.1677827	-0.92 (0.360)	-0.237	-0.72 (0.487)	
Sector	Yes		Yes		
Year dummies	yes		yes		
Durbin (score) chi2(2)	0.301213 (0.8602)				
Wu–Hausman F(2,52)	0.109228 (0.8967)				
Sargan chi2(4)	8.24049 (0.0832)				
Basmann chi2(4)	6.46216 (0.1672)				
R-squared	0.8846		0.833		
Breusch–Pagan chi2(1)	5.77 (0.0163)				

\*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ . \*Clustered error (firm; ID), and the regression of Instrumental Variable (IV) two-stage least square model, P-Value between bracket.

supported. On the other hand, H3 received ample support as state ownership is found to be significantly negatively related to cash holding. In terms of testing the relationship between the board of directors' traits and cash holding, the findings show that board sizes are positively related to cash holding. Nonetheless, this relationship is also insignificant, making H4 unsupported. Furthermore, H5 and H6 are both supported, as the regression model found board independence and board busyness to be significantly positively related to cash holding.

## 6. Discussion

In summary, in terms of the impact institutional ownership has on firms' cash holding, this study's findings show that the former has a positive (but insignificant) impact on the latter. This is in line with the findings by Al-Najjar (2015) and Alghadi et al. (2021). Even though the result is insignificant, this finding could be viewed from the lens of the Trading Hypothesis which postulates that institutional investors trade their stock holdings aggressively. This action may cause the fluctuation of stock prices and increased uncertainties from repeated big-size trading (Brown et al., 2011). This will, in turn, heighten the risks (market uncertainty) for firms, making external funding more costly (Corwin, 2003). The market uncertainty would then exert extra financial restrictions on the companies, encouraging their precautionary cash holding.

The data analysis suggests that state ownership has a negative and significant impact on firms' cash holding, a finding that is in line with Do Thi (2018) and Megginson et al. (2014). Such a finding could be explained through the political linkages argument, where political linkages allow firms to obtain funds at lower costs (Do Thi, 2018). Therefore, firms with significant state ownership face fewer issues in securing funds and would generally have easier access to external financial resources (Borisova et al., 2012). For large stockholders, findings indicate that they exert a positive and significant impact on cash holdings, consistent with the findings by Anderson and Hamadi (2009). In an environment of high ownership concentration like Oman, large stockholders expropriate wealth from minority ones, as the former can transfer the firm's assets to private benefits at fewer costs (Ginglinger & Saddour, 2012). Therefore, large stockholders tend to encourage cash retention within the firm to be invested in assets that enable them to expropriate benefits at the expense of small stockholders.

Furthermore, our analysis shows that when it comes to the board of directors' traits (size of board, independence of board, and board busyness), the impact of such traits on cash holding is both positive and significant. This is in line

with the findings made by prior studies such as Ferreira and Vicente (2020) and Tarkovska (2013). An exception to the above is the size of the board, where the estimated impact is positive but insignificant. Nonetheless, this finding is largely consistent with Boubaker et al. (2013) and the Monitoring Hypothesis. The Hypothesis postulates that large boards are less effective in overseeing managers due to free riders' problems, exacerbating agency conflicts. On a slightly different note, independent directors are less effective in overseeing managers compared to their non-independent, executive director counterparts. This is because the latter is considered to be more familiar with the company's operations, policies, and activities (Black & Bhagat, 2000). Lastly, from the busyness of the board perspective, the Busyness Hypothesis predicts that busy board members do not have enough time to strictly monitor the actions of management (Field et al., 2011). Therefore, in the presence of busy board members, managers tend to keep cash within the firm to spur growth and may indulge in various misbehaviors. In conclusion, less effective boards may prompt managers to increase a firm's cash holdings.

Estimates of the control variables, on the other hand, indicate that the impact of dividend policy on cash holdings is positive, which is in line with the Agency Conflict Theory. Paying dividends is one of the channels for reducing cash holdings to minimize the cash availability in the hands of managers. This would ultimately limit them from pursuing their interests that would contradict the owners' (Javadi et al., 2021). Furthermore, the results from this study have shown that the relationship between profitability and cash holding is positive and significant, which is in line with the Theory of Pecking Order. This Theory postulates that firms with high gains tend to have great cash holdings for reinvestments (Al-Najjar & Clark, 2017; Bagh et al., 2021; Thu & Khuong, 2018), and to fund future expansion strategies at fewer costs. Moreover, this study's analyses show that growth chance has a negative and significant relationship with cash holdings. These findings are in line with the Free Cash Flow Hypothesis, which proposes that managers favor keeping cash to gain discretionary authority over company's decisions. Managers would also tend to increase the number of assets under their control, which would grant them the chance to pursue their own personal interests (Jensen, 1986). This pursuance of personal incentives by managers may be due to weak corporate governance mechanisms, where the rights of investors are not well protected in a developing market's context such as Oman. Finally, this study's findings suggest that leverage ratios have a positive (but insignificant) impact on cash holdings, while firms' size has a negative (but insignificant) impact on cash holdings. which is in line with Hadjaat et al. (2021).



## 7. Conclusion

Based on the review of the related empirical literature and the estimation of a panel-pooled regression model, this study analyzes the effect of ownership structure and board of directors' characteristics on cash holding in the context of Oman. This study's results may be beneficial for firms' management, investors, and other stakeholders. The implication for managers and investors is that their understanding of how elements of ownership structure and board of directors' characteristics affect the firm's cash holdings may increase.

The ownership structure and board characteristics of Omani firms are crucial in determining their cash holdings. The existence of large stockholders may prompt cash holdings to increase, as large stockholders may influence management to act in ways that conform to their private benefits. This relationship dynamics may cause a rise in agency costs. Meanwhile, the presence of state ownership may reduce the size of cash holdings, as the state may hope to minimize agency costs. On the other hand, institutional ownership has an insignificant role in influencing the level of cash holdings in firms. Furthermore, the board of directors' characteristics may determine their effectiveness in providing mentoring for management. For instance, the findings show that busy directors are not effective in providing oversight, as they do not have enough time to do so. The impact of this is managers tend to keep more cash to pursue their interests, causing agency costs to rise.

On the other hand, the size of boards does not have any significant role in determining the firm's cash holdings. Therefore, firms' management must pay extra attention to the firm's board characteristics and ownership structure. The existence of large stockholders may bring about different kinds of agency conflicts with minority stockholders. On top of that, adding more members to the board who are busy with board directorships may not contribute to the effective mentoring of managers. The results of this study could be of interest to investors who intend to invest in companies with the presence of large stockholders. Such investors must keep in mind that, as the findings of this study suggest, such stockholders would prefer to keep cash within the firm. This is more so in the Omani environment, where the ownership structure is highly concentrated, and corporate governance is weakly enforced. In such an environment, the rights of minority stockholders are less protected. It is thus highly probable that the minority stockholders may find their wealth to be expropriated by large stockholders.

In addition to this, the board of directors may be less effective in overseeing managers' actions, as shown by this study's findings that suggest that the existence of busy directors may result in increased cash holdings.

In line with the above discussion, the presence of large stockholders, coupled with less effective board monitoring mechanisms, would make expropriation more likely. For future studies, it is recommended that aspiring researchers should incorporate other control factors that may affect cash holdings (such as capital expenditure and liquidity) and utilize other instrumental factors (such as the availability of growth chances) to analyze the effect of corporate governance on the cash holdings of Omani firms. Future research may also leverage the factors used in this paper on a different sample of companies within the Omani financial sector (such as banks, investment houses, and insurance companies) to verify the applicability and predictability of the aforementioned corporate governance theories.

## References

- Adams, R. B., Hermalin, B. E., & Weisbach, M. S. (2010). The role of boards of directors in corporate governance: A conceptual framework and survey. *Journal of Economic Literature*, 57(5), 998–1001.
- Al-Najjar, B. (2015). The effect of governance mechanisms on SME cash holdings: Evidence from the UK. *Journal of Small Business Management*, 23(2), 303–320.
- Al-Najjar, B., & Clark, E. (2017). Corporate governance and cash holdings in MENA: Evidence from internal and external governance practices. *Research in International Business and Finance*, 39, 1–12. <https://doi.org/10.1016/j.ribaf.2016.07.030>
- Alghadi, M. Y., Al Nsour, I. R., & Aizyadat, A. A. K. (2021). Ownership structure and cash holdings: Empirical evidence from Saudi Arabia. *Journal of Asian Finance, Economics, and Business*, 8(7), 323–0331. <https://doi.org/10.13106/jafeb.2021.vol8.no7.0323>
- Anderson, R. W., & Hamadi, M. (2009). Large powerful shareholders and cash holding. <https://eprints.lse.ac.uk/24422/1/dp631.pdf>
- Attig, N., Fong, W. M., Gadhoun, Y., & Lang, L. H. P. (2006). Effects of large shareholding on information asymmetry and stock liquidity. *Journal of Banking and Finance*, 30(10), 2875–2892. <https://doi.org/10.1016/j.jbankfin.2005.12.002>
- Attig, N., El Ghoul, S., Guedhami, O., & Rizeanu, S. (2009). Multiple large shareholders and the value of cash holdings. *Financial Management*, 5(1), 11–19.
- Bagh, T., Asif, K. H. A. N., M., Meyer, N., Sadiq, R., & Kot, S. (2021). Determinants of corporate cash holdings among Asia's emerging and frontier markets: Empirical evidence from the non-financial sector. *Journal of Asian Finance, Economics, and Banking*, 8(6), 661–0670. <https://doi.org/10.13106/jafeb.2021.vol8.no6.0661>
- Ben-Nasr, H., Boubakri, N., & Cosset, J. C. (2012). The political determinants of the cost of equity: Evidence from newly privatized firms. *Journal of Accounting Research*, 50(3), 605–646. <https://doi.org/10.1111/j.1475-679X.2011.00435.x>

- Black, S., & Bhagat, B. (2000). *Board independence and long-term firm performance*. Colorado: University of Colorado.
- Borisova, G., Brockman, P., Salas, J. M., & Zagorchev, A. (2012). Government ownership and corporate governance: Evidence from the EU. *Journal of Banking and Finance*, 36(11), 2917–2934. <https://doi.org/10.1016/j.jbankfin.2012.01.008>
- Boubaker, S., Derouiche, I., & Nguyen, D. K. (2013). Does the board of directors affect cash holdings? A study of French listed firms. *Journal of Management and Governance*, 19(2), 341–370. <https://doi.org/10.1007/s10997-013-9261-x>
- Brown, C. A., Chen, Y., & Shekhar, C. (2011). Institutional ownership and firm cash holdings. *SSRN Electronic Journal*, 82, 152–163. <https://doi.org/10.2139/ssrn.1786182>
- Bushee, B. J., & Noe, C. F. (2000). Corporate disclosure practices, institutional investors, and stock return volatility. *Journal of Accounting Research*, 38, 171. <https://doi.org/10.2307/2672914>
- Chen, R., & Nash, R. (2015). *State ownership and corporate cash holdings: Evidence from privatization* *Journal of Management and Finance*, 17(11), 4451–4460.
- Chen, Y. R. (2008). Corporate governance and cash holdings: Listed new economy versus old economy firms. *Corporate Governance: An International Review*, 16(5), 430–442. <https://doi.org/10.1111/j.1467-8683.2008.00701.x>
- Coles, J. L., Daniel, N. D., & Naveen, L. (2014). Co-opted boards. *Review of Financial Studies*, 27(6), 1751–1796. <https://doi.org/10.1093/rfs/hhu011>
- Corwin, S. A. (2003). The determinants of underpricing for seasoned equity offers. *Journal of Finance*, 58(5), 2249–2279. <https://doi.org/10.1111/1540-6261.00604>
- Dahya, J., Dimitrov, O., & McConnell, J. J. (2008). Dominant shareholders, corporate boards, and corporate value: A cross-country analysis. *Journal of Financial Economics*, 87(1), 73–100. <https://doi.org/10.1016/J.JFINECO.2006.10.005>
- Dittmar, A., Mahrt-Smith, J., & Servaes, H. (2003). International corporate governance and corporate cash holdings. *Journal of Financial and Quantitative Analysis*, 38(1), 111. <https://doi.org/10.2307/4126766>
- Do Thi, T. N. (2018). *Cash holding, Corporate governance mechanisms and Firm value in transition economies: A study of listed corporations in Vietnam* [Unpublished Doctoral Thesis]. Tomas Bata University, Zlín.
- Dwaikat, N., & Queiri, A. (2014). The relationship between ownership structure and firm's performance: An empirical evidence from Palestine. *International Journal of Business and Management*, 9(12), 49–61. <https://doi.org/10.5539/ijbm.v9n12p49>
- Eckbo, B. E., Masulis, R. W., & Norli, Ø. (2007) Security offerings. In B. Espen (Ed.), *Handbook of empirical corporate finance* (pp. 223–350). Elsevier: North-Holland, Amsterdam.
- Fama, E. F., & Jensen, M. C. (1983). Agency problems and residual claims. *Journal of Law and Economics*, 26(2), 327–349. <https://doi.org/10.1086/467038>
- Ferreira, M. P., & Vicente, E. F. R. (2020). Effect of the structure of the board of directors on cash holdings of publicly traded companies. *Contemporary Journal of Economics and Management*, 18, 20, 275–289. <https://doi.org/10.19094/contextus.2020.44362>
- Fich, E. M., & Shivdasani, A. (2006). Are busy boards effective monitors? *Journal of Finance*, 61(2), 689–724. <https://doi.org/10.1111/j.1540-6261.2006.00852.x>
- Field, L. C., Lowry, M., & Mkrtchyan, A. (2011). Are busy boards detrimental? [Abstract]: Are Busy Boards Detrimental? Abstract. *Journal of Financial Economics*, 109(1), 814–865. <https://doi.org/10.1016/j.jfineco.2013.02.004>
- Ginglinger, E., & Saddour, K. (2012). Cash holdings, corporate governance, and financial constraints. *SSRN Electronic Journal*, 7, 575. <https://doi.org/10.2139/ssrn.2154575>
- Hadjaat, M., Yudaruddin, R., & Riadi, S. S. (2021). The impact of financial distress on cash holdings in Indonesia: Does business group affiliation matter? *Journal of Asian Finance, Economics, and Business*, 8(3), 373–381. <https://doi.org/10.13106/jafeb.2021.vol8.no3.0373>.
- Harford, J., Mansi, S. A., & Maxwell, W. F. (2008) Corporate governance and firm cash holdings in the US. *Journal of Financial Economics*, 87(3), 535–555. <https://doi.org/10.1016/j.jfineco.2007.04.002>
- Ivalina, K., & Lins, K. V. (2004). *International evidence on cash holdings and expected managerial agency problems* [Unpublished thesis]. The University of Utah.
- Javadi, S., Mollagholamali, M., Nejadmalayeri, A., & Al-Thaqeb, S. (2021) Corporate cash holdings, agency problems, and economic policy uncertainty. *International Review of Financial Analysis*, 77. <https://doi.org/10.1016/j.irfa.2021.101859>
- Jebri, A. (2013). The effect of large controlling shareholder's presence and Board of Directors on firm value. *International Journal of Accounting and Financial Reporting*, 3(2), 180. <https://doi.org/10.5296/ijaf.v3i2.4411>
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *SSRN Electronic Journal*, 76(2), 323–329. <https://doi.org/10.2139/ssrn.99580>
- Jiraporn, P., Singh, M., & Lee, C. I. (2009). Ineffective corporate governance: Director busyness and board committee memberships. *Journal of Banking and Finance*, 33(5), 819–828. <https://doi.org/10.1016/j.jbankfin.2008.09.020>
- Kusnadi, Y., Yang, Z., & Zhou, Y. (2015). Institutional development, state ownership, and corporate cash holdings: Evidence from China. *Journal of Business Research*, 68(2), 351–359. <https://doi.org/10.1016/j.jbusres.2014.06.023>
- Lasfer, M. A. (2006). The interrelationship between managerial ownership and board structure. *Journal of Business Finance and Accounting*, 33(7–8), 1006–1033. <https://doi.org/10.1111/j.1468-5957.2006.00600.x>
- Meggison, W. L., Ullah, B., & Wei, Z. (2014). State ownership, soft-budget constraints, and cash holdings: Evidence from China's privatized firms. *Journal of Banking and Finance*, 48(March), 276–291. <https://doi.org/10.1016/j.jbankfin.2014.06.011>

- Myers, S. C. (1997). Determinants of corporate borrowing. *Journal of Financial Economics*, 5(2), 147–175.
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187–221. [https://doi.org/10.1016/0304-405X\(84\)90023-0](https://doi.org/10.1016/0304-405X(84)90023-0)
- Myers, S. C., & Rajan, R. G. (1998). The paradox of liquidity. *Quarterly Journal of Economics*, 113(3), 733–771. <https://doi.org/10.1162/003355398555739>
- Nguyen, D. T., Diaz-Rainey, I., & Gregoriou, A. (2012). Financial development and the determinants of capital structure in Vietnam. *SSRN Electronic Journal*, 11, 483. <https://doi.org/10.2139/ssrn.2014834>
- Okuda, H., Thi, L., & Nhung, P. (2010). The determinants of the fundraising structure of listed companies in Vietnam: Estimation of the effects of government ownership. *Economic Research*, 10, 1145–1152.
- Ozkan, A., & Ozkan, N. (2004). Corporate cash holdings: An empirical investigation of UK companies. *Journal of Banking and Finance*, 28(9), 2103–2134. <https://doi.org/10.1016/j.jbankfin.2003.08.003>
- Paskelian, O. G., Bell, S., & Nguyen, C. V. (2010). Corporate governance and cash holdings: A comparative analysis of Chinese and Indian firms. *International Journal of Business and Finance*, 4(4), 59–74.
- Peng, M. W., Bruton, G. D., Stan, C. V., & Huang, Y. (2016). Theories of the (state-owned) firm. *Asia Pacific Journal of Management*, 33(2), 293–317. <https://doi.org/10.1007/s10490-016-9462-3>
- Pinkowitz, L., Stulz, R., & Rohan, W. (2006). Does the contribution of corporate cash holdings and dividends to firm value depend on governance? A cross-country analysis. *Journal of Finance*, 22(6), 2725–2751.
- Raheja, C. G. (2005). Determinants of board size and composition: A theory of corporate boards. *SSRN Electronic Journal*, 6, 77. <https://doi.org/10.2139/ssrn.522542>
- Shleifer, A., & Vishny, R. W. (1986). Large shareholders and corporate control. *Journal of Political Economy*, 94(3), 461–488. <https://doi.org/10.1086/261385>
- Shleifer, A., & Vishny, R. W. (1997). A survey of Corporate Governance. *Journal of Finance*, 52(2), 737–783. <https://doi.org/10.1111/j.1540-6261.1997.tb04820.x>
- Tarkovska, V. (2013). Busy boards, cash holding, and corporate liquidity: Evidence from Uk Panel Data. *Financial Management*, 16, 36–42.
- Taufil Mohd, K. N., Latif, R. A., & Saleh, I. (2015). Institutional ownership and cash holding. *Indian Journal of Science and Technology*, 8(32), 1–6. <https://doi.org/10.17485/ijst/2015/v8i32/92124>
- Thu, P. A., & Khuong, N. V. (2018). Factors effect on corporate cash holdings of the energy enterprises listed on Vietnam's stock market. *International Journal of Energy Economics and Policy*, 8(5), 29–34.
- Ullah, H., Saeed, G., & Alam, Z. (2014). Corporate ownership structure and firm excess cash holdings: Evidenced from emerging markets, Pakistan. *Abasyn University Journal of Social Sciences*, 7(2), 16–47.
- Yeh, Y. H., & Woitke, T. (2005). Commitment or entrenchment?: Controlling shareholders and board composition. *Journal of Banking and Finance*, 29(7), 1857–1885. <https://doi.org/10.1016/j.jbankfin.2004.07.004>