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How Audit Quality Affects Cash Holdings: Evidence from China

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Abstract: This is one the maiden studies that aim to reveal the association between audit quality and cash holdings among non-financial firms in the unique context of China, that is a major developing economy. Although previous studies have looked at the wider impact of governance systems on cash holdings decisions, there isn't much research on the precise connection between audit quality and company cash holdings—particularly in China's developing economies. This study, which has bases in agency, auditing, and cash theories, makes an assertion that stronger audit quality has tendency to discourage managers from hoarding extra cash holdings, thereby highlighting the significance of audit quality to be an instrument for monitoring. This study employs ordinary least squares (OLS) regression and fixed effects (FE) models to examine the effects of audit quality variables on cash holdings. This study uses the generalized method of moments (GMM) model for robustness. It employs a large sample dataset comprising 20203 observations of Chinese non-financial enterprises for the period of 2003-2016. This study confirms that audit quality works as a monitoring device and discourages unnecessary accumulation of Chinese firms' cash holdings. Audit quality dimensions, the Big4 auditors, audit fees, and the fear of receiving an unclean audit opinion work as regulating forces that stop managers' unnecessary holdings of cash reserves. This study contributes to governance systems and cash holdings in China. It is a maiden one to comprehensively employ audit quality as a corporate governance mechanism to assess how it affects cash holdings.

Keywords: cash holdings; audit quality; governance mechanism; Big4; audit fees; audit opinion

1. Introduction

Cash holdings plays a pivotal role in any organization to manage day to day business and to meet various financial obligations (Cho et al., 2018; Dalwai et al., 2023). Research on corporate cash holdings has become more prevalent, particularly in relation to developing nations like China (Lee & Wang, 2021; Potì et al., 2020). Compared to firms in industrialized nations, Chinese companies often have larger average cash reserves (Lee & Wang, 2021). The Chinese economy have a weak investor protection system. The governance mechanism of Chinese firms is in its nascent stage(Jiang & Kim, 2015). Given that managers and shareholders frequently have different opinions on the ideal amount of cash for holding onto rather transfer to investors(Opler et al., 1999), agency theory argues that this significant buildup of cash reserves could possibly entail hazards, even though it could be used for genuine business objectives. If large financial reserves are not used for profitable ventures, they might lead to management abuse and entrenchment, which will damage the value of the company (Harford, 1999; Jensen, 1986; Megginson et al., 2014; Shleifer & Vishny, 1997).

Governance mechanism of a firm augments the value of cash holdings and prevents managers' entrenched behavior toward productive asset utilization (La Porta et al., 2000). Governance provides crucial support for curbing agency issues in developed and underdeveloped countries (Claessens & Fan, 2002; Claessens & Laeven, 2003; Lemmon & Lins, 2003; Lins, 2003). A reliable monitoring mechanism reduces cash-related agency problems and ensures efficient cash utilization by investing in profitable projects. Over the past few decades, scholars have focused on cash holdings and firm governance(Dalwai et al., 2023; Hassanein & Kokel, 2022).

Audit quality can be an effective monitoring tool to influence the management (Nguyen et al., 2020). Audit quality may be able to properly direct cash use and align manager-owner incentives in China's still-developing corporate governance structure. Audit quality curbs the information symmetry and enhances the credibility of information between the shareholders and managers (Hammami & Hendijani Zadeh, 2020). China have aimed to establish a more reliable governance mechanism of audit quality through its regulatory reforms (Yeung & Lento, 2018).

Jebran, Chen and Tauni (2019) only focused on principal-principal conflict of governance dimensions while studying the same phenomenon. Megginson et al. (2014) confirm the connection between ownership structure as the governance mechanism of Chinese corporations and their decision to hoard cash. Researchers have also examined how the country- and firm-level governance mitigates the agency problem and controls entrenched manager behavior (Claessens & Fan, 2002; Claessens & Laeven, 2003; Lemmon & Lins, 2003; Love & Klapper, 2002). Although previous studies have looked at the wider impact of governance systems on cash holdings decisions, there isn't much research on the precise connection between audit quality and company cash holdings—particularly in China's developing economies.

This study, which has bases in agency, auditing, and cash theories, makes an assertion that stronger audit quality has tendency to discourage managers from hoarding extra cash holdings, thereby highlighting the significance of audit quality to be an instrument for monitoring. It offers additional valuable insights to comprehend how the elements of auditing quality work as a governance tool in extenuating cash-related agency-related matters and ensuring the productive utilization of assets, predominantly liquid assets such as cash. This study also explains how audit quality protects all stakeholders' rights and indicates the areas into which researchers and policymakers can put their efforts. This study will marginally enhance existing knowledge in numerous ways. First, it analyzes the effects of corporate governance mechanisms on cash reserve decisions of non-financial firms in China. The present study is a maiden one to comprehensively employ audit quality as a corporate governance mechanism to assess how it affects cash holdings.

In addition, this study used a more extensive dataset of non-financial listed enterprises in China. The data set ranged from 2003 to 2016. Second, as far as the author is aware, this is the first study to employ audit variables uniquely, including the Big4 auditing firms, audit fees, and audit opinion, as indicators of audit quality to determine their effect on the volume of cash reserves in China.

The present work establishes empirical support for the theoretical relationship between behavioral and economic theories of cash holdings. Agency theory, pecking order theory, and trade-off theory explain the effect of governance mechanisms on Chinese firms' corporate cash management of Chinese firms based on multiple organizational characteristics.

The remainder of this paper is structured as follows. Section 2 outlines the literature and hypothesis development that underpins the study. Section 3 details the research methodology used for data collection and analysis. Section 4 presents the key empirical findings from the research. Finally, Section 5 concludes the main findings, acknowledges the study's limitations, and suggests avenues for future research.

2. Literature and Hypothesis Development

2.1 Audit Quality and Cash Holdings

External audits are necessary because of prevailing or probable agency issues and information asymmetry between owners, who are separate from the firms' control and their managers (Lin & Hwang, 2010). Auditing mitigates information asymmetry and deters agency issues by serving as a monitoring tool (Jensen & Meckling, 1976). Audit quality ensures that firms’ financial reporting is in accordance with the Accounting Standards for Business Enterprises (ASBE) in China.

Audit quality highlights and prevents accounting malpractices, errors, and misrepresentations and helps reveal information asymmetry as early as possible, thus reducing agency problems (Yeung & Lento, 2018). External auditors can help detect cash expropriation (Newman et al., 2005). A quality audit makes the information in reported earnings more pronounced by discerning information from clatters in discretionary accruals (Krishnan, 2003). Audit quality deters managers' entrenchment and opportunistic behavior by constraining their power to report favorable information (Ball et al., 2012).

Audit firms serve an important external monitoring function by authenticating and verifying financial reports that boost firm value and mitigate agency problems by extracting self-serving benefits from managers hidden in shoddy accounting statements (Jensen & Meckling, 1976). External auditors can assist in minimizing the agency costs of residual losses by detecting contract violations to outside parties in audited financial reports (Watts & Zimmerman, 1983). Thus, an agent's tendency to entrench and tunnel cash holdings disguised in misleading reporting shrinks with the auditing mechanisms of audit firms (Fan & Wong, 2005).

Audit quality is the audacity in which the auditing phenomenon finds and reveals anomalies in an organization's financial reporting (DeAngelo, 1981). Superior audit quality increases confidence and requires increased audit effort by the provider (Carcello et al., 2002).

2.1.1 The Big4 auditors and cash holdings

Audit quality varies among the firms. Firms' reliability and trustworthiness in financial reporting vary when audits involve foreign or local auditing firms, audit fees are large or small, and the probability of unclear audit opinion is mixed (Lin & Hwang, 2010). External auditors verify that financial reports are per the country's reporting standards and bring reliability and objectivity to a company's financial reporting (Modugu & Dabor, 2013). Audit quality prevents managers' entrenchment and opportunistic behavior by mitigating information asymmetry and reporting biases (Lin & Hwang, 2010).

Big audit firms earn a brand name and reputation after huge investments; therefore, they perform the monitoring function better than smaller firms (DeFond et al., 2016; Palmrose, 1988; Simunic, 1980). The Big4 auditors provide superior quality audits due to their larger size and reputation than their rivals, and they are not dependent on any specific audit client (DeAngelo, 1981). The Big4 auditors are better at curbing creative accounting or upward earnings management than other auditing firms, and opportunistic behavior mitigates firms audited by the Big4 (Becker et al., 1998; Francis et al., 1999). The Big4 audit clients have a lower probability of misrepresentation and false reporting than clients of other auditing firms, resulting in mitigated exposure to the risk of litigation and lower accounting fraud cases (Lennox & Pittman, 2010; Lys & Watts, 1994; Palmrose, 1988). The Big4 auditors have been linked to higher audit quality, as they have substantial fame and brand names, necessitating them to execute robust audits and maintain their brand while deflecting the consequent lawsuits from lower-quality audits (DeAngelo, 1981). Audits performed by the Big4 auditors lower auditee firms' earnings management and discretionary accruals in multiple empirical investigations (Kim et al., 2003). The Big4 auditees face fewer external financing constraints than non-Big4 clients, and the expected return rate by prospective shareholders is significantly lower for Big4 clients in the US (Khurana & Raman, 2004). Similarly, the debt cost was substantially lower for Big4 clients than for non-Big4 clients (Kim et al., 2013). Big4 auditors prevent managerial cash expropriation better than their counterparts (Huang et al., 2019).

Therefore, this study hypothesizes the following:

H1: Firms audited by the Big4 auditors tend to have lower cash holdings.

2.1.2 Audit fees and cash holdings

Firms facing fewer external financing constraints are less critical to internal financing and expect to hold fewer cash holdings. Huang et al. (2019) proposed that auditees who encounter similar capital costs from internal and external sources will find their cash reserves less helpful. Auditing, performed by entities with a prominent brand image, functions as an external corporate governance tool to help alleviate the entrenchment and opportunistic and self-serving actions of the firm's managers (Fan & Wong, 2005; Jensen & Meckling, 1976). Reputed auditing firms ensure reporting quality and provide auditees with gestures to reduce agency concerns and maximize company value (Wu, 2012). The signaling phenomenon can alleviate information asymmetry among decision-makers and external stakeholders (Spence, 1978). Signaling assurance of credible financial reporting and the presence of strong corporate governance to increase firm value through availing more audit services and hiring reputable audit firms requires increased audit fees and costs (Carcello et al., 2002; Fan & Wong, 2005; Wu, 2012). Higher audit fees are associated with higher quality (Dye, 1993; Simunic & Stein, 1996). Reputed audit firms charge high fees and reduce the probability of agency issues; thus, they hold fewer cash holdings. Hence, this study proposes the following hypothesis.

***H2**: Companies that pay higher audit fees have lower cash holdings.*

2.1.3 Audit opinion and cash holdings

Audit opinion shows that the auditor has thoroughly checked the objectivity, fairness, and reliability of the firm's financial reports and explicitly declared its views (Liu et al., 2011). Firms strive to obtain clean audit opinions. Otherwise, an unclean audit opinion harms managers' and firms' reputations and increases the likelihood of legal inquiries and high operational expenses (Liu et al., 2011).

Audit quality is higher if there is an increased likelihood of an unclean audit opinion (Liu et al., 2011). Thus, audit quality resulting from fear of the increased possibility of obtaining an unclean audit opinion will improve governance systems and subjugate the agency motives of cash holdings. Considering the above arguments, the current study hypothesizes the following.

H3: The higher the likelihood of an unclean audit opinion, the lower the firm's level of cash holdings.

3. Research Methodology

3.1 Sample and Data

China Stock Market and Accounting Research (CSMAR) database is the source of the dataset used in the current study. This investigation used the Shanghai and Shenzhen stock exchanges' listed firms' A-shares data. This research employed non-financial firms' data from 2003 to 2016. This study excludes financial firms due to their different capital structure and leverage policies compared to non-financial firms and removes sample records containing missing data. This study winsorizes observations at 1% on both top and bottom. The final sample was composed of 20203 observations of the firms and years.

3.2 Measurement of variables

3.2.1 Cash holdings

Following the previous studies (Al-Najjar & Clark, 2017; Borhanuddin & Ching, 2011; Chen & Chuang, 2009; Dittmar et al., 2003; Harford et al., 2008; Opler et al., 1999), the outcome variable in this study is 'the ratio of cash and cash equivalents to total assets' that represents cash holdings in Chinese non-financial firms. For robustness purposes, this study uses the natural logarithm of one plus the ratio of cash and cash equivalents to total assets as an alternate indicator of cash holdings.

3.2.2 Audit Quality Variables

The current study will use Big4 auditors, audit opinion, and audit fees to examine the association of audit quality and cash reserve levels of non-financial firms in China. The Big4 is a dummy variable with a value of 1 if the Big4 auditor has audited the firm's financial reports or 0 otherwise (Boone et al., 2010). The audit opinion will improve the audit quality if the firm is likely to receive an unclean audit opinion from the auditors (Lennox, 2005; Liu et al., 2011). The audit opinion is a dummy variable with a value equal to 1 if the firm had received any qualified, adverse opinions, disclaimed, or unqualified audit opinions with explanatory notes (Chen et al., 2001; Liu et al., 2011). The audit opinion dummy variable would be 0 if the firm received an unqualified audit opinion. Audit fees will be used after taking the natural logarithm (Choi et al., 2010).

3.2.3 Control variables

Various factors can alter the decision about the level of cash reserves. This study employs control variables following previous studies and considers theories of cash holdings and the motives of cash holdings. Control variables used are: 'Financial debt to total asset ratio,' 'financial debt to total debt ratio,' 'firm size represented by the natural log of market capitalization, 'market value of equity to book value of equity ratio,' 'substitutes of cash ratio that is the ratio of the difference of networking capital from cash and total assets, 'the ratio of cash flow that is the ratio of the sum of profit before tax and depreciation to total assets, 'the ratio of capital expenditure that is the ratio of the sum of the change in fixed assets and depreciation to total assets, 'tangible fixed assets to total assets ratio,' 'volatility ratio that is the quotient of cashflow's standard deviation to total assets and the 'cash dividend,' the dummy variable with value one if the firm has paid cash dividend and zero otherwise (Jebran, Iqbal, et al., 2019; Loncan, 2018; Opler et al., 1999). This study also controls the industry and year effects using regression analysis.

3.3 Model Specification

To evaluate the audit quality impact on cash holdings research, this study uses two methods for analyzing the simple panel data. First, the present study will use OLS regression which is most common technique to analyse panel data and is consistent with prior literature on cash holdings (Dittmar et al., 2003; Loncan, 2018; Potì et al., 2020). The current study will also use the generalized method of moments (GMM) model for robustness, following the literature (Loncan, 2018; Opler et al., 1999; Ozkan & Ozkan, 2004; Potì et al., 2020). GMM is a dynamic panel data model that deals with any of the probable endogeneity problems related to corporate governance and financial decisions regarding cash holdings. GMM regression is a better choice to analyze the effect of audit quality on cash holdings due to the possibility of a delayed response in cash holdings (Loncan, 2018; Ozkan & Ozkan, 2004). GMM regression can overcome these delayed partial adjustments in cash holdings, and using the lagged value of cash can consider these adjustments (Loncan, 2018). Therefore, GMM regression would be a better choice for the robustness test.

Equation 1 has been used to analyze the influence of audit quality on the volume of cash holdings, respectively.

$$CASH_{it} = \beta_0 + B_1 \ Big4_{it} + \beta_2 \ LNAUDFEE_{it} + \beta_3 \ UNCLEAN_{it} + \sum Control_{it} + \varepsilon_{it} \quad \text{Eq.1}$$

4. Results and Discussion

Table 1 provides an overview of the data regarding the dependent variable on cash holdings, the explanatory variables of audit quality, and the control variables that affect the level of cash holdings. The average cash holdings (CASH) in Chinese non-financial firms are 18%. This value shows that the Chinese firms' cash stocks are a considerable proportion of their total assets. The value of CASH is consistent with the recent study by Jebran, Chen and Tauni (2019). The Big4 audit firms, on average, audit 5.4% of the Chinese firms. The average audit fee is 12.50. The audit opinion is expected to be 0.036, meaning that 3.6% of Chinese companies will likely receive an unclean audit opinion. The average cash flow ratio is 7.1%, the average capital expenditure ratio is 4.8%, the mean value of the leverage ratio is 45.9%, and the financial debt ratio is 44.8%. The mean value of market capitalization is 15.25, the expected cash substitute ratio is 1.3%, the tangibility ratio is 25.5%, and the dividend payout ratio is 66.1%.

Table 1: Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
CASH	20203	0.180	0.133	0.006	0.657
ALTCASH	20203	0.160	0.106	0.006	0.505
Big4	20203	0.054	0.225	0.000	1.000
AuditFees	20203	12.50	3.502	0.000	18.37
AO	20203	0.036	0.185	0.000	1.000
FinancialDebt	20203	0.448	0.258	0.000	0.918
Size	20203	15.25	1.092	12.10	21.53
Leverage	20203	0.459	0.207	0.070	0.946
CashFlow	20203	0.071	0.066	-0.305	0.281
CapEx	20203	0.048	0.075	-0.216	0.357
CashSub	20203	0.013	0.208	-1.005	0.516
Tangibility	20203	0.255	0.178	0.002	0.758
Dividend	20203	0.661	0.473	0.000	1.000

Correlation Analysis

Table 2 presents the Pearson correlation coefficients of cash holdings (CASH) and audit quality variables. CASH is negatively associated with audit opinion (AO), audit fees (AuditFees) and the Big4 audit quality variables, and their relationship is statically significant at 1%. CASH does not correlate very highly with any of the audit quality indicators.

Table 2: Pairwise correlations

Variables	(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) CASH	1.000										
(2) AuditOpinion	-0.074***	1.000									
(3) AuditFees	-0.036***	-0.027***									
(4) Big4	-0.067***	-0.022***	1.000								
(5) FinancialDebt	-0.428***	0.020***	0.031***	1.000							
(6) Size	0.025***	-0.132***	0.285***	-0.028***	1.000						
(7) Leverage	-0.419***	0.134***	0.075***	0.369***	-0.005	1.000					
(8) CashFlow	0.205***	-0.258***	0.073***	-0.203***	0.311***	-0.368***	1.000				
(9) CapEx	-0.125***	-0.070***	0.028***	0.149***	0.035***	0.001	0.150***	1.000			
(10) CashSub	0.150***	-0.133***	-0.061***	-0.274***	0.068***	-0.524***	0.130***	-0.171***	1.000		
(11) Tangibility	-0.376***	0.013*	0.053***	0.353***	-0.080***	0.080***	0.072***	0.459***	-0.493***	1.000	
(12) Dividend	0.177***	-0.188***	0.089***	-0.093***	0.290***	-0.231***	0.317***	0.113***	0.195***	-0.074***	1.000

4.2 Audit Quality and Cash holdings

Table 3 reports the regression analysis of the effect of audit quality variables on the level of cash holdings using OLS, FE, and GMM models in columns 1,2 and 3, respectively. The present study has hypothesized that the Big4 auditors, audit opinion, and audit fees are negatively associated with the level of cash holdings. The results of all three models show that the audit quality indicators of the Big4 auditors (the Big4), the audit opinion (AO), and the audit fee (LNAUDITFEE) have a significant adverse effect on the level of cash holdings. The results confirm the hypothesis developed in this study.

Table 3: Effect of Audit Quality on Cash Holdings

VARIABLES	(OLS) WCASH	(FE) WCASH	(GMM) WCASH
CASH			0.897***
			(83.195)
AuditOpinion	-0.020***	-0.015***	-0.125***
	(-4.930)	(-3.938)	(-8.495)
AuditFees	-0.001***	-0.001***	-0.001***
	(-5.388)	(-6.161)	(-5.686)
Big4	-0.015***	-0.013**	-0.081***
	(-4.645)	(-2.565)	(-6.523)
Financialdebt	-0.088***	-0.047***	-0.163***
	(-27.701)	(-11.432)	(-14.456)
Size	-0.003***	-0.010***	0.013***
	(-3.680)	(-12.333)	(7.893)
leverage	-0.316***	-0.315***	0.063***
	(-67.784)	(-47.170)	(7.848)
Cashflow	0.102***	0.136***	-0.078***
	(7.914)	(11.071)	(-4.120)
CapEx	0.075***	0.049***	-0.239***
	(6.881)	(5.361)	(-20.931)
Cashsubs	-0.268***	-0.278***	-0.080***
	(-56.169)	(-47.332)	(-11.273)
Tangibility	-0.373***	-0.389***	0.074***
	(-67.337)	(-52.640)	(7.873)
Dividend	0.021***	0.008***	-0.004**
	(12.830)	(5.099)	(-2.444)
Constant	0.496***	0.599***	
	(45.078)	(47.542)	
Observations	20,203	20,203	16,684
R-squared	0.429	0.280	
Industry FE	NO	YES	YES
Year FE	NO	YES	YES
Number of code	2,522	2,522	2,376

t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1

4.3 The Big4 and Cash holdings

The Big4 coefficient in all three columns is significantly negative and advocates that Big4 auditor clients of the Big4 auditors experience a constraining impact on cash and cash equivalent levels. It confirms the monitoring effect of the Big4 auditors, due to which the entrenched managers refrain from keeping extra funds as cash reserves. Clients of Big4 auditing firms experience improved accounting information that reduces information asymmetry between managers and other stakeholders, thus reducing cash reserves. The Big4 auditors negatively affect their clients' cost of capital (Li, 2010); therefore, firms need to hold less cash, as a precautionary motive suggests. Results are also aligned with those of Hassanein and Kokel (2022). Hassanein and Kokel (2022) confirm that in Turkey, non-financial listed firms hold less cash when they have Big-N as their auditor than firms having non-Big4 auditors (Hassanein & Kokel, 2022). Both the monitoring and the reduced information asymmetry views support the argument that Big4 auditors have a high reputation and large size; therefore, they perform high-quality audits to ensure information quality to maintain their high reputation.

4.4 Audit Fees and Cash holdings

Table 3 also shows the association between audit fees and holdings of cash. The audit fee coefficient is statistically significant and negative for three models of OLS, FE, and GMM. It suggests an adverse effect of audit fees on cash reserves across three models. In other words, firms tend to hoard less cash when the auditors receive high audit fees. This outcome is congruent with the reasoning that the more the audit fees are, the greater the auditor independence is, and it reduces conflict of interest between auditors and clients. Therefore, the auditors put extra effort into keeping reporting quality high, thus reducing the risk of manipulating accounting information and constraining the holding of firms' cash reserves for private purposes by entrenched managers.

Moreover, the reduction in cash hoarding is evident from the higher audit fees' indirect effect. High audit fees signal auditors' influential monitoring role through additional efforts to improve their audit quality. This monitoring role causes a reduction in the cost of external financing due to high audit fees (Gandía & Huguet, 2019), and therefore, the holdings of cash reserves are reduced.

Audit opinion and cash holdings

Table 3 shows the regression results of audit opinion and level of cash holdings. The coefficient of audit opinion is statistically significant and negative. This result confirms our third hypothesis. It is significant at a one percent level and remains significant across three OLS, FE, and GMM models. The significant negative coefficient of the audit opinions indicates that there is a possibility of receiving an unclean audit opinion or an audit opinion other than an unqualified audit opinion that negatively affects cash hoarding. It is congruent with the notion that corporations endeavor to get a clean audit opinion; otherwise, the unclean audit opinion will harm the managers' and firms' reputations and increase the likelihood of legal inquiries and high operational expenses (Liu et al., 2011). Therefore, the possibility of getting an unclean audit opinion works as a corporate governance device and prohibits managers from entrenched behaviors, reducing agency issues and thus reducing the hoarding of cash reserves.

The results of nearly all control variables are identical to those predicted and corroborate previous studies on cash holdings (Jebran, Chen, Tauni, et al., 2019). Tangibility has a negative sign, which shows that enterprises with more physical assets seem to have fewer liquid assets (Drobetz & Grüninger, 2007; Uyar & Kuzey, 2014). The negative coefficient of leverage shows that debt may supplement cash reserves, and the firms can utilize their liquid assets to arrange cash needed, as indicated via the pecking order argument. Uyar and Kuzey (2014) and Chen (2008) also predicted the adverse association between leverage and cash holdings. A negative dividend coefficient shows that firms use cash to pay dividends. Capital expenditure has a positive coefficient. It demonstrates a favorable association with cash balances in the current study, which contrasts with previous studies but is analogous to the Opler et al. (1999) findings.

The negative sign of market capitalization as a measure of firm size demonstrates a negative association with cash hoardings in the current study. Following trade-off theory, the negative coefficients of firms' size measure suggest that the larger the size of firms, the lesser the need to maintain large cash reserves because they can get cash through loans as and when needed due to a high reputation facing fewer financial constraints. Cash flow has a positive sign in the current regression results. It shows that enterprises with additional significant cash flows will likely retain more cash to meet their outlay expenditures and cope with future financial distress. This finding is compatible with the pecking order theory and previous studies' empirical findings (Opler et al., 1999; Ozkan & Ozkan, 2004; Uyar & Kuzey, 2014). Financial debt has a negative coefficient that shows a negative relationship with cash holdings. Financial debt is a cash alternative, demonstrating that corporations have financial market access to meet their financial needs, thus holding less cash (Uyar & Kuzey, 2014). It is consistent with the empirical findings of Ozkan and Ozkan (2004) and Uyar and Kuzey (2014) empirical findings. Cash substitutes, net working capital minus cash over total assets, also have a negative coefficient. It shows a negative association with cash holdings.

Table 4 Alternative Proxy of Cash Holdings

VARIABLES	(OLS) ALTCASH	(FE) ALTCASH
Audit opinion	-0.019***	-0.013***
	(-6.048)	(-4.516)
AuditFees	-0.001***	-0.001***
	(-4.897)	(-5.723)
Big4	-0.013***	-0.011***
	(-5.087)	(-2.744)
Financialdebt	-0.070***	-0.037***
	(-27.765)	(-11.083)
Size	-0.002***	-0.007***
	(-3.814)	(-11.416)
Leverage	-0.248***	-0.252***
	(-67.032)	(-47.409)
Cashflow	0.089***	0.115***

	-8.704	-11.777
CapEx	0.063***	0.041***
	-7.265	-5.67
Cashsubs	-0.211***	-0.220***
	(-55.859)	(-47.041)
Tangibility	-0.302***	-0.313***
	(-68.671)	(-53.238)
Dividend	0.018***	0.007***
	-13.416	-5.337
Constant	0.410***	0.484***
	-46.961	-48.238
Observations	20,203	20,203
R-squared	0.433	0.282
Industry FE	NO	YES
Year FE	NO	YES
No of Codes	2,522	2,522

t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1

4.5 Robustness test

Table 4 shows the regression results of audit quality variables of the Big4, audit fees, and audit opinion with an alternative proxy for Chinese firms' level of cash holdings of Chinese firms. The results remain significant and confirm the negative association of Big4, audit fees, and audit opinions with cash holdings, consistent with prior results of the current investigation.

5.Conclusions

The present research examines how audit quality affects the cash management of Chinese firms. More specifically, utilizing a sample of 20,203 Chinese non-financial enterprises from 2003-2016, the present research work tries to identify the relationship of the Big4 auditors, audit fees, and audit opinion with the volumes of cash reserves of Chinese enterprises. This study finds that Big4 auditors, audit fees, and audit opinion negatively affect Chinese firms' cash holdings. The findings stay similar, employing the alternate proxy of cash holdings. When the reputed Big4 auditor audits the firms and the firms have paid high fees to the auditors, it signals auditor independence, strong audit quality, and unbiased financial reporting. It is likely to decrease the cost of external funds. Thus, the firms must rely less on internal funds to reduce cash holdings. Fear of getting an unclean audit opinion also works as a regulating force among managers to stop unnecessary cash reserves. Consistent with the hypotheses of the current study, the results propose that audit quality is expected to decrease the volume of cash balances. It works as a mechanism of corporate governance to control the deep-seated management from holding unnecessary cash reserves.

This study's findings have significant economic repercussions: audit quality reflected by the Big4 auditors, audit fees, and audit opinions affect the cash management policy of Chinese non-financial firms. Chinese policymakers should bring more reforms to improve the audit environment and bring it to par with developed nations. This study incorporated three measures of audit quality. Future studies should integrate other audit quality measures with large datasets to improve the current study's limitations.

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