

THE BUSINESS CASH HOLDING PROVISIONS: ONE AND TWO STEPS TECHNIQUE GMM PANEL ESTIMATORS

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Paper Received: 03.06.2022 / **Paper Accepted:** 20.07.2022 / **Paper Published:** 24.07.2022

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Abstract

The research investigates the country-specific variables that affect financial companies' corporate cash holdings, particularly in the Asia Pacific and Europe. From 2010 through 2020, corporate cash holdings were examined. The financial firms in the research are divided into two categories: Europe and Asia. Our study seeks to identify which variables are more significant in determining cash holdings disparities across Asia Pacific and European nations. A Dynamic Panel Model with one and two-step technique GMM panel estimators was used to experimentally evaluate the hypothesis. The research's results are disclosed. 1) Asian firms have somewhat higher cash holdings than European firms. 2) The larger cash holdings in Asia Pacific nations are not due to an agency crisis. 3) In terms of company-level capital holdings drivers, business size, financial instability, acquisition, and profitability all have a positive effect on cash holdings in both sectors. 4) High-profit businesses retain less cash on hand to avoid taking unnecessary risks and instead invest it in profitable development projects. This study offers scholars and practitioner's complete information since it focuses on the factors that affect companies' cash holdings.

Keywords: Cash Holdings, One & Two-step Systems, Country-specific Determinants, Dynamic Panel Model (GMM).

Introduction

In most companies, the total amount of money kept is essential since it enables cash payments and directly impacts its production. The company's cash balance is unclear, although it comprises cash and cash equivalents like bank accounts and provisional shares that may be converted to cash rapidly (Bates et al., 2009 [12]; Ferreira and Vilela 2004 [27]). In optimum capital markets, cash holding choices are irrelevant since businesses may rapidly obtain money from financial markets to finance their acquisitions at a cheap cost. Companies operating in perfect capital markets may obtain money rapidly and at minimal costs, rendering the choice to retain cash obsolete. The influence of stable firm-level administration on money holdings and money estimates in the context of fragile nation-level administration; the impact of stable firm-level administration on money possessions and money estimates in secure outer security (Tahir Akhtar, 2018 [74]). Corporate motives for maintaining currency, on the other hand, are not new. Since then, a flood of theories and interpretations have been produced to identify the factors affecting cash holdings in various nations (Pinkowitz, 2016 [64]).

Size, Momentary Obligation, Complete Obligation, Elusive resource, Influence proportion, net capital, and content %age all have a role in the quantity of money retained by gathering businesses (Islam, 2012 [40]). The practice of cash holding is regarded as an essential financial decision for companies since the retention of corporate cash varies from one firm to the next. Many companies continue to evaluate their corporate capital structure management due to the challenges of slow financial markets, increased borrowing rates, liquidity problems, and excessive uncertainty in every sector. Such critical factors demonstrate that companies have no apparent purpose in retaining money, even though the thinking patterns may be prudent or reckless (Shaista, 2013 [70]). By scrounging restrictions, Asian businesses, according to Horioka (2014) [36], would store more money for prospect holdings than firms in emerging nations. Contingency plans are created in response to economic inequality, population pressure, environmental concerns, and fiscal or tariff legislation. The tourists chose to visit these sites for entertainment, interest, recreation, and curiosity reason (Abigail, et. al., 2021 [4]). When

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these problems arise, companies cannot get funds through the stock market due to excessively high transaction fees; furthermore, this situation is inappropriate for smallest enterprises. The foundations of a country's institution are unstable. Therefore, SMEs are rewarded for having a significant sum of money on hand to guarantee a solid implementation. When the capacity of the monetary framework to support SMEs is inadequate, holdings become a substitute tool for sustaining their sector (Rocca, 2017 [67]). Economic slowdown, risk in business, job layoffs and pay cuts have pinched the common man's wallet and many have taken to plunging their savings into the business of investing, in search of an alternate source of income (Ekansh and Aman, 2020 [28]). The conditions for obtaining cash holdings have a significant effect on Asian companies' behavior. The upgrading of the monetary division will enable Asian businesses to spend less on money assets and invest more in physical capital (Charles, 2013 [16]). According to Jiang and Falsehood (2016), organizations should close 31% of the gap between their actual money assets and the desired level per year. It is based on behavior of students as major factor and secondly while dealing them online it ensures effectiveness in delivery of teaching with faculty inner consciously trainings which carry major factors in between students and them (Aftab and Vinod, 2020 [25]). Companies with large numbers of high-capacity directors should pay more for money property (Gan and Park, 2017). There is a strong negative association between elements of the working capital organization and efficiency of the firm (Kabir et al., 2020 [43]). The following are the study's two objectives: First, a look at the features of cash holding companies in several European and Asian nations. Second, as part of our investigation of the agency's motivation to retain cash, we examine whether country-specific factors might explain cash holding trends. The thesis analyses survey results from various geographic areas focusing on corporate cash holdings in Asia and the Pacific. The study helps in a better understanding of cash holdings activity in the Asia Pacific and Europe and in different institutional frameworks.

Literature Review

A significant study subject in finance is the variables that influence company cash holdings. The cash holdings of businesses fluctuate based on many factors, including the company's features and economic conditions (Guizani, 2017 [33]). In Europe and Asia, influence, benefit, growth, competitiveness, and systems administration resources harm money holdings, while budgetary efficiency and incomes have a favorable impact (Ummar Aftab, (2019) [76]). In developing market sectors, influence, profit payout, benefit, resource liquidity, and company size affect money holdings.

Despite the differences in budgetary and administrative procedures, monetary drivers remain the same (Al-Najjar, 2013 [3]). According to the precautionary motivation, a business should keep cash on hand as a hedge to meet unexpected expenditures or unknown eventualities. Han and Qiu (2007) [38] looked at the cautious reason for a company's cash holdings, assuming that cash flow changes may affect a company's cash holding behavior. Idle workplace squabbles are often linked to large amounts of company cash (Winnow et al., 2017). Many city officials hold their positions for only a few months at a time. The multi-faceted chain of importance's innately momentary grandeur motivates newly allocated authority to act quickly to be selected for development (Gao et al., 2013 [32]). Although real money property themes are making more money, there isn't enough research on how logical distributions work from a global perspective (Da Cruz et al., 2019). Whatever the situation, the long-term effects of money keeping are considered (Jebran et al., 2019). There are unexpected extra expenditures in a company's future, such as value fluctuations, rising expenses, and the availability of raw materials or other unprocessed components. Cash holding helps organizations deal with problems like these when it's necessary (Xu et al., 2018 [81]). For this investigation, we look at how differences in business situations in different countries affect the uniqueness of authority structures and practices related to companies' money property (Tahir and Alifiah 2018 [74]). The free income hypothesis ensures that managers will spend a considerable amount of time analysing money assets as free profits and abusing them for certain objectives (Khuong, 2018 [44]). Persuasive governance tools may assist to reduce the issue of old economy companies holding too much capital (Chen, 2008 [17]). Researchers utilized a difference in-contrast test using financial business merger and closure events, as well as improvements in the causes, to assess relapses and solve the endogeneity issue (Keeh Chung, 2015 [42]). However, other audit investigations have focused heavily on the factors that determine the ownership of financial assets (Weidemann 2018). According to Atif et al. (2019), there is a strong negative correlation between a greater variety of sexual orientations, different types of meeting spaces, and monetary wealth. Significant changes in the unemployment insurance system in several of the nations in our example will require a comparative study (Marc Deloof, 2020 [55]). Many scholars have also focused in evaluating and depicting global logical distributions, as well (Da Cruz et al. 2019), the predetermined number of investigations has focused on evaluating and depicting global logical distributions (Square and Fisch 2020). No matter how many studies are done on the interaction between different elements of organizations and

cash assets, the core topics on cash property still require attention (Da Cruz et al. 2019). Differences in finance availability may possibly explain the nonlinear connection between modification costs and company size. In contrast to companies of various sizes, medium-sized businesses will have more trouble changing their cash holdings to desired levels (Valdivia, 2012 [77]). However, according to Akben-Selcuk et al. (2020), building meeting rooms has no significant influence on fair and square money property, various studies show the necessity for a full assessment and survey of cash assets, underscoring the importance of doing so. When a business has financial problems, it may be compelled to keep more cash on hand than planned as a precautionary step to cover unforeseen costs (Diantimala, 2018 [20]). Government or policymakers may use this research to create a strategy or set of rules to manage SME money land as a consequence of the presentation of money holdings of independent businesses (Faizal, 2018 [29]). "All investments with positive net present values must be funded with free cash flow since they are discounted at the appropriate cost of capital," Jensen says (1986) [41]. The favourable impact of the emergency on money holding methods becomes negative for monetarily forced European businesses during the lengthy emergency term, perhaps because the situation facilitates and decreases monetary difficulties (Yaman, 2020 [46]). The Netherlands and the center EU also said in the presentation that there is no quantifiable proof that the Netherlands has more money than Germany, Belgium, France, and Italy, who are all part of the center EU (Hanson, 2017 [34]). When money levels are above optimum, organization expenses are typical (Azmat, 2014 [6]). This study may be useful for corporate audiences in terms of monetary adaptability, income unpredictability, cost of capital and currency rates, as well as their requirement for more rigid leverage via money holdings (Vastola, 2019 [79]). Furthermore, in certain instances, some itemized consequences may need additional investigation: for example, since the shirking alternative of money property is devalued, a greater misfortune in keeping up may result in lower ideal money possessions (Hricko, 2004 [37]). Larger cash holdings helped these organizations avoid instability and protected them from problems in obtaining external funding. To avoid potential office issues connected with surplus money property, low money shops were held by companies with more unstable CG systems (Roy, 2018 [68]). Budgetary limitations have also been included in our research model to evaluate the transition speed of FC and FUC businesses, showing that even after accounting for budgetary limits, the downward velocity of change remained greater (Siddiqua, 2018 [30]). Companies having unfavorable qualities, contrary to common perception, will carry less capital. The scale of a

company, as well as the volatility of its earnings, has little effect on the choice to retain money. Despite the fact that board size is irrelevant, board autonomy is shown to have a substantial detrimental impact on company financial assets (Wasiuzzaman, 2014 [80]). The goal income knowledge selected has a significant impact on future profits (for example professional fit before charge). Despite this, we make a gallant effort to put a single number on the liquidity risk that the UK banking sector faces (Meilan Yan, 2014 [56]). The liquidity ratio falls as a company's size increases; large businesses' cash holdings diminish owing to economies of scale (Lozano & Yaman, 2020 [46]). Firm size is a key factor that is more likely to cause an increase in cash holdings (Liu & Zhang, 2014 [47]).

H1: The size of the company and its cash holdings are inextricably linked

To the company's borrowing alternatives are being utilized. Market leverage is essential in financial markets when cash ownership is computed endogenously (Mello, 2008 [23]). According to different studies, corporate cash holdings have an inverse connection with leverage (Guizani, 2017 [33]). Leverage enables the firm's capital holdings to decrease due to interest rates. According to both main theories, leverage reduces the probability of underinvestment and necessitates more external management oversight. According to the trade-off concept, businesses may retain more cash flows to avoid insolvency. Consequently, businesses with much debt are more likely to have low capital holdings, indicating that leverage reduces cash holdings (Marwick, 2020 [60]). On the other hand, leverage is associated with a company's ability to retain cash (Kalcheva, 2007 [52]).

H2: There is a strong connection between corporate governance and cash holdings

A company's dividend is another significant factor that influences its cash holdings. Dividend-paying businesses may rapidly and cheaply obtain funds from the general public. These companies no longer hold cash in liquid form since they can easily access the stock market. In this instance, there is a negative connection between cash holdings and dividends (Dottori, 2018 [24]). However, other studies have shown a link between dividends and cash holdings (Susanto, 2020 [83]).

H3: Cash holdings have a direct association with investor security

Because it implies the probability of bankruptcy, financial instability is a critical factor in corporate cash management. Altman's Z-score, cash flow uncertainty, and credit rating are among the proxies that make up this determinant. Companies on the brink of bankruptcy are unable to obtain more

capital without eroding their financial holdings. Companies with much debt are more likely to have financial problems. To avoid insolvency, many companies retain more cash on hand (Tran, 2019 [73]).

H4: Corporate cash balances are influenced by financial distress

Investment practices include capital expenditures and procurement expenses. When spending operations increase, cash levels decrease (Tran, 2019 [73]). On the other hand, there has been evidence that cash holdings and savings have a positive connection (Dottori, 2018 [24]). The result of a positive connection seems to contradict both the pecking order theory and the FCF hypothesis.

H5: Operating cash flow and cash holdings have a significant relationship

Because profitable companies, their cost of capital have a reduced risk of financial loss. Trade-off theory and pecking order theory demonstrate the positive connection between cash management and profitability (Najjar, 2017 [8]).

H6: Cash holdings have a significant beneficial relationship with profitability

Cash holdings are usually depleted when networking capital rises (Yang & Susanto, 2020 [83]). Horioka (2014) [36] questioned whether Asian and American businesses had a negative connection between cash holdings and net working capital and a positive relationship between working capital and cash assets.

H7: Companies' cash balances have a substantial negative relationship with net working capital

The national government determines the right to keep the money. If nations' defenses are lax, managers will profit from the needless expenditure. The businesses with the most excellent voting rights and the lowest quantity of stock have the most voting rights and the smallest amount of stock (Martins, 2019 [59]). In nations with weak shareholder rights, investors overlook the significance of capital deposits. They consider the benefits and drawbacks of having cash on hand. Cash funds lose much value since there isn't adequate shareholder security at the state level. According to many studies, while shareholders' insurance rights are limited, managers' cash holdings are increased (Dittmar, 2007 [21]). According to Lin et al. (2016) [50], businesses with poor governance systems have insufficient shareholder protections. Due to the absence of a governing framework, outside investors

underestimate the worth of companies with surplus capital.

H8: Political extraction and cash holdings are linked in a significant way

Financial markets play an essential role in the economy to support economic development. Various factors affect economic growth, with economic growth having a more significant effect on business production. Companies in nations with stable governments and established marketplaces have easy access to financial markets. The development of capital markets has a significant effect on whether or not cash holdings should be kept (Kusnadi, 2015 [53]).

H9: cash holdings and capital investments are inextricably linked

When a country's government is strong, laws are adhered to, and corruption is minimal. Consequently, companies may access credit markets more efficiently and at a lower cost (Seifer, 2016 [71]). Companies that operate in countries with poor governance are more likely to hoard cash than companies that operate in countries with excellent governance (Martins, 2019 [59]).

Research Methods

The study looked at the factors that affect non-financial companies' cash holding status. The population includes non-financial businesses listed in Europe and Asia. Two central global regions were covered in the survey: Europe and the Asia Pacific. The data of 4500 companies were created using the World Bank database "<https://data.worldbank.org/>" and the Thomson Financial database "<https://www.reuters.com>" with 3050 companies from Europe and 1,450 from the Asia Pacific. These companies select based on data availability. The World Bank's database is used to compile WGI figures and data on stock market capitalization and domestic credit. A total of the six indicators was utilized in the study to measure a country's overall governance (Pinkowitz, 2016 [64]). The anti-director index (ADI) was employed as a proxy for the shareholder rights index (SRI) (Djankov, 2009 [22]). Domestic credit is provided to track financial trends as a %age of GDP. The World Scope and Thomson Financial databases provided the data for the firm's essential variables.

Data Evaluation

Previous research has identified a few endogeneity concerns in cash portfolios, but variable bias has overlooked those challenges (Drobetz, 2007 [26]). It's possible that ignoring unobserved firm-specific findings that affect the explanatory variables will result in skewed limited estimates. This study uses the GMM estimation method to create a dynamic

cash model (Campello, 2006 [18]). System GMM is used for analytical estimates utilizing orthogonal variance. The dynamic panel GMM panel estimator addresses the dynamic nature of cash management while also keeping an eye on the potential endogeneity problem (Xuan, 2016 [49]). The fixed effect (within) calculation technique, which was widely employed in earlier research, is more helpful in controlling potential endogenous issues. The potential endogeneity issue is not considered since the method for estimating fixed effects of time-invariant variables has not been seen.

Experimental Model

The hierarchical panel model was employed in the study to test scientific hypotheses. According to the trade-off theory, the value of a business is maximized when the marginal benefit of retaining capital reaches the marginal cost of cash holdings. Cash holdings minimize the danger of financial instability, and lower transaction rates, and provide you additional choices for projects that would otherwise be difficult to execute owing to financial constraints (Guizani, 2017 [33]). This theory is linked to transaction cost motivations and precautionary motives. Endogenous factors in the competitive panel model include firm size, corporate governance, financial crisis, creditor security, operational cash flow, net working capital, political extraction, capital expenditure, and financial market expansion. Consequently, to solve the endogeneity issue, the thesis utilized the dynamic panel model for empirical study. The cash holdings of an organization are the endogenous component in static trade-off theory and finance hierarchy theory (Anand et al., 2018 [9]). This study paradigm enables us to evaluate the competitive trade-off principle of cash holding by observing how businesses manage cash holding by altering current levels to a well-defined objective, and if so, how fast. The researchers developed the following multiple linear dynamic panel model to estimate the pace at which cash holdings change in light of the assertions above.

$$CH_{it} = \beta_1 CH_{i-1} + \beta_2 FS_{it} + \beta_3 CG_{it} + \beta_4 IP_{it} + \beta_5 FD_{it} + \beta_6 OCF_{it} + \beta_7 NWC_{it} + \beta_8 PE_{it} + \beta_9 CE_{it} + \beta_{10} FMD_{it} + \varepsilon_{it}$$

Where CH stands for the cash ratio is calculated by dividing total assets by cash and cash equivalents. The natural log of the firm's total assets at time t is used to calculate its size. The company i leverage ratio at time t is CG, while the firm i dividend payout ratio at time t is IP. Furthermore, FD denotes the financial distress of company i at time t, whereas OCF denotes the firm's investment ratio at the exact moment. The ROA of a company, i at time t, is used to calculate NWC. PE denotes the firm's networking capital at time t. CE stands for Anti-Director Index, a proxy for the company i shareholder right index at time t, and the wrong word is FMD, which stands for financial market development.

Results and Discussions

Descriptive statistics provide and summaries data in a logical, easy-to-understand, and readable manner - tables 4.1 and 4.2 exhibit the results of the descriptive statistics. Companies in the Asia-Pacific region have the highest cash ratios, at 15% and 14.1% of total assets, respectively, while companies in Indonesia, Malaysia, Pakistan, and China have the lowest cash ratios, at 12.8%, 12.8%, 12.7%, and 12.3% of total assets, respectively. Firms in New Zealand have the lowest cash ratio, at 10.6%, while those in Australia and India are close behind the Japanese. In comparison to other nations, Turkish businesses have the highest cash-to-total-assets ratio in Europe, at 31.3%.

Analysis of Correlation

A mathematical technique for assessing the size and trajectory of a connection between two variables is correlation analysis. The results of this correlation research are shown in Tables 4.3 and 4.4. The results of this correlation analysis showed that all of the study's variables had a partial correlation. As a consequence, multi-co linearity is not a problem.

Table 1: Correlation Analysis (Europe)

Variables	CH	FS	CG	IP	FD	OCF	PE	NWC	CE	FMD	WGI
CH	1										
FS	-0.17	1									
LEV	-0.259	0.224	1								
DIV	0.101	0.078	-0.208	1							
FD	0.324	0.207	0.506	0.509	1						
INV	-0.059	0.112	0.099	0.11	0.052	1					

ROA	0.045	0.156	-0.253	0.501	0.507	0.13	1				
NWC	-0.2	0.171	0.275	0.119	0.303	-0.067	0.2	1			
SRI	0.027	0.052	0.137	0.07	0.117	0.005	0.041	-0.042	1		
FMD	-0.018	0.023	0.025	0.028	0.028	0.095	0.014	-0.03	0.478	1	
WGI	-0.142	0.019	0.139	0.064	0.127	0.068	0.078	0.161	0.186	0.433	1

Note: This table shows the matrix of correlation among the dependent variable and independent variables in Europe. To the direction of relationships between variables. The correlation is between cash holdings, Firm size FS, Corporate governance CG, Investor protection IP, Financial distress FD; Political extraction PE, Capital expenditures CE, networking capital, financial market development and country governance.

Table 2: Correlation Analysis (Asia Countries)

Variables	CH	FS	CG	IP	FD	OCF	PE	NEC	CE	FMD	WGI
CH	1										
FS	-0.043	1									
LEV	-0.323	0.372	1								
DIV	-0.015	-0.35	-0.2	1							
FD	0.267	0.231	-0.2	-0.35	1						
INV	0.0652	0.231	0.06	-0.19	0.035	1					
ROA	-0.011	0.127	-0.6	0.054	0.332	0.063	1				
NWC	-0.036	-0.35	-0.3	0.046	0.189	0.043	0.352	1			
SRI	0.0345	0.027	0	-0.04	0.063	0.032	0.067	0.006	1		
FMD	-0.053	0.34	0.04	-0.18	0.056	-0.25	-0.092	-0.03	0.342	1	
WGI	0.017	0.28	0.03	-0.1	0.072	0.024	-0.051	-0.03	0.472	0.698	1

Note: This table shows the matrix of correlation among the dependent variable and independent variables in Europe. The correlation is between cash holdings, Firm size FS, Corporate governance CG, Investor protection IP, Financial distress FD; Political extraction PE, Capital expenditures CE, networking capital, financial market development and country governance.

Cash Positions and Firm-Specific Factors

The results for firm-specific variables, country-specific factors, and cash-keeping status of firms listed in Europe and Asia are shown in Table 4.5. This table shows the expected impacts of the one-step and two-step GMM systems. In all columns, the lagged value of the dependent variable is significant, indicating that the model is complicated. To show that previous cash decisions impacted cash holdings (Afza & Adnan, 2007 [7]). According to Ferreira (2004) [27], Order theory supports the positive relationship between cash holdings and company size. Since large firms may quickly accumulate cash due to high earnings and free cash flow theory (2004), the debt coefficient in column 2 implies that cash holdings have considerably grown. High-leveraged firms usually have sufficient liquid holdings to protect themselves against a financial shock. Because of the transaction cost motivation, firms should keep less cash on hand (Bates et al.,

2009 [12]). In contrast, as indicated by agency theory and the precautionary motivation, the coefficient of leverage in columns 3 and 5 shows no significant association with cash holdings in Asia. Dividend coefficients in columns 2 and 4 in Europe showed a substantial negative connection with cash holdings (Opchen et al., 2012). In contrast, the dividend coefficient in columns 3 and 5 reveals a substantial positive connection with Asian cash holdings. According to the results, dividend-paying firms should maintain cash on hand to avoid liquidity shortages, especially when dividend payments are due (Ferreira & Vilela, 2004). The coefficient of financial hardship shows a strong positive connection with cash holdings in columns 2 to 5. Firms that are more skeptical about anticipated cash flows have more cash on hand, allowing them to avoid under investing in future promising initiatives (Gao & Li, 2013 [32]). As a result, firms on the verge of bankruptcy tend to have more cash

on hand. Investment in columns 2, 3 and 5 shows a substantial positive relationship with cash holdings in Europe and Asia. Furthermore, firms with more acquisition alternatives are more likely to keep more significant quantities of cash due to higher financial distress costs (Ferreira, 2004 [27] & Belghita, 2013). Highly prosperous firms, according to the data, also have substantial cash holdings for reinvestment. Companies maintain their earnings to produce liquidity and a competitive advantage in their operations, which is why they keep significant amounts of cash on hand (Manoel et al., 2018). Networking capital has a significant negative connection with the cash amounts in columns 2 to 5. The use of networking capital as a substitute for cash discovers a realistic option into cash if transaction costs are minimal. The shareholders' coefficient accurate index indicates a significant negative

association with cash holdings in columns 2 to 5. In nations where owners have greater rights, and external capital markets are well-known, firms hold less cash, supporting the notion of agency costs (Chen et al., 2015 [19]). Financial growth has a significant impact on the cash holdings in columns 2 and 4. On the other hand, financial growth shows a substantial negative connection with cash holdings in columns 3 and 5. (Yang, & Zhou, 2015). In European firms, the national governance coefficient exhibits a significant negative relationship in columns 2 and 4. According to Pinkowitz (2016) [65], companies in countries with excellent shareholder/investor rights should have a moderate quantity of capital on hand. In columns 3 and 5, however, the coefficient Asian country governance exhibits a strong positive association.

Table 3: Estimation Results Between Cash Holdings and Firm-Specific Factors, Country-Specific Factors for Asian and European Firms

Cash holding is the dependent variable in all the columns.				
Variables	One Step System GMM		Two-Step System GMM	
	Model A		Model B	
	Europe	Asia	Europe	Asia
Constant	-0.034	0.181***	0.035**	0.308***
	-0.037	-0.046	-0.018	-0.037
Cash (t-1)	0.752***	-0.045	0.658***	-0.131**
	-0.045	-0.049	-0.034	-0.0523
FS	0.005**	0.025***	0.005***	0.022***
	-0.004	-0.007	-0.0006	-0.004
Cg	-0.085***	0.004*	-0.050**	-0.085**
	-0.045	-0.003	-0.025	-0.048
Ip	-0.254*	0.030***	-0.250**	0.067
	-0.152	-0.005	-0.089	-0.048
FD	0.006**	0.045***	0.006**	0.019**
	-0.001	-0.005	-0.002	-0.005
Ocf	0.076	-0.008	-0.043	0.038***
	-0.11	-0.014	-0.066	-0.006
Pe	0.092**	0.352**	0.043	0.145
	-0.043	-0.087	(0,045)	-0.152
Nwc	-0.928	-0.158**	-0.092***	0.037
	-0.0453	-0.073	-0.03	-0.047
Ce	-0.005***	-0.012**	-0.005***	-0.022*
	-0.003	-0.006	-0.002	-0.034
Fmd	-0.019***	-0.012**	-0.073**	-0.030**
	-0.005	-0.006	-0.052	-0.035
WGI	-0.076**	0.050**	-0.044***	0.043*
	-0.063	-0.035	-0.008	-0.045
AR(1)	0	0	0	0
AR(2)	0.253	0.352	0.452	0.156
Sargan / Hansen	0.71	0.187	0.57	0.62
Instruments	289	366	311	334
No of groups	1350	1237	933	956

Note: The effects of a one-step plan are listed in this table. In a dynamic panel model based on the sorting of two groups of companies, the Generalised Method of Moment (GMM) is used (Large and small firms). Model A represents Europe and Asia's small and medium-sized businesses, whereas Model B represents Europe and Asia's major businesses. Company sizes more significant than the median value are classified as large firms, whilst firm sizes more minor than the median value are classified as small enterprises. The presence of first-order serial correlation is demonstrated by the substantial value of AR (1), which rules out the null hypothesis of no first dissimilarity auto-correlation between the error components. Nonetheless, AR (2) is negligible in level regression between error terms since there is no second-order serial correlation. The Hansen test for id worth is negligible, as it just represents the authority of the utensils and is not too acknowledged. GMM is sufficiently specific with no categorization subjects, according to the results of AR (1), AR (2), and the Sargan/Hansen test.

Robustness Analysis for Firm-Specific Factors

Companies with various features may be subject to varied rules for cash management. Businesses have been divided into two groups based on their size. It is known to be more significant if a company's worth surpasses that of the median. The table shows the results of small and large businesses in Europe and Asia Pacific countries based on one stage and two systems GMM estimates. The outcomes for small to medium-sized firms are depicted in Model A, whereas the outcomes for large businesses are depicted in Model B. The delay-dependent variable is employed as an independent variable. The model is hierarchical since this lagged dependent variable is relevant in all columns. The company size coefficient in Models A and B shows that firm size has a significant positive association with cash holdings in Europe and Asia. When a small business already has cash on hand, it is common to pay a higher interest rate on new loans. Smaller firms prefer to have enough cash to run their enterprises efficiently and avoid default since their borrowing. According to Ozkan (2004) [63], more knowledge asymmetry is associated with smaller firms (Ferreira, 2004 [27]). According to the Pecking Order concept, the quantity of cash retained increases as the size of the firm expands. Furthermore, the significant link between firm size and cash holdings is attributed to agency concerns (Bates et al 2009 [12]). According to leverage, all European and large Asian businesses' cash holdings have suffered significant negative consequences. The research revealed that debt reduces a company's capital holdings due to interest payments. According to Nguyen (2005) [61], high external debt costs are likely to cause cash problems for leveraged firms.

The dividend, on the other hand, shows a significant increase in corporate cash held in Asia. Rather than having cash on hand, the majority of European firms choose to pay dividends. As a result, cash holdings and dividend dividends would be mutually exclusive (Ozkan, 2004 [63]). Dividend-paying firms may retain money on hand to obtain funds quickly when needed; to do so, they may reduce payouts. If a company does not pay dividends, capital markets might utilise it to obtain funds (Ferreira, 2004 [27]). In Europe and Asia, the cash holdings of businesses are linked to financial difficulties. According to the results, significant businesses are at risk of going bankrupt, which is why they keep so much cash on hand (Subramaniam et al., 2011 [72]). Positively invested businesses have cash on hand, which helps them manage their liquidity and eliminates the need for further financing (Mansi, 2008). Profitability has a high positive association with cash holdings in the European and Asian areas. Profitable companies may save money and avoid paying excessive interest rates (Najjar, 2013 [3]). As a result, sustainability appears to positively influence firms' cash balances (Ferreira, 2004 [27]). Businesses' cash holdings are declining due to a significant component known as net working capital. The cash flow generally decreases as net operating capital rises (Liu, 2014 [47]). Businesses retain fewer capital companies working in Europe because investors' interests are better protected in European countries (Kalcheva, 2007 [52]). Because investors' interests in Asian countries are not guaranteed, Asian enterprises are volatile (Dittmar, 2007 [21]). Financial sector expansion has a strong negative association with cash holdings for small and large enterprises in Europe and Asia. A well-developed capital system makes credit more readily available to firms in more favourable conditions. The amount of cash holdings grows as a country's governance improves. Tables (6, 7, and 8) show the outcomes of the calculations for firm-specific, country-specific, and cross-country cash balances. According to the research, firm and country-specific variables account for a considerable part of cash holdings in each Asian and European nation.

Conclusion

The study looked at the company and country-specific corporate cash holdings in Europe and the Asia Pacific from 2009 to 2019. The dynamic panel model and technique GMM one step and two-step estimators are utilized for observational testing of the theory. The study's findings show a plethora of intriguing information regarding the link between official organizations, firm-specific concerns, and cash holdings in all of these categories. Cash holdings are influenced by firm size, financial difficulty, acquisitions, and performance. Furthermore, increased net working capital, the protection of shareholder interests, and the

expansion of financial markets will diminish cash holdings. However, research relating leverage, dividend payment, and national governance to healthy cash balances are contradictory. When comparing firms of various sizes (Large and Small) and countries, the results are equivocal. Due to geographical disparities in both nations, the impact of firm-specific factors and country-specific variables on cash holdings varies significantly. Within each area, several institutional contexts influence the connection between company-specific and country-specific factors and cash holdings. Overall, the findings of the research on trade-off theory and pecking order theory are significant in explaining the drivers of corporate cash holdings. The agency hypothesis is primarily concerned with the effects of country-specific factors on corporation cash holdings. Businesses should have cash on hand to avoid financial emergencies, according to the results. To help consumers avoid charges like interest, fines, and a bad credit record due to late payments, even in mature financial settings. According to the results, highly prosperous firms should maintain less capital to avoid suffering opportunity costs and instead invest their cash holdings in attractive investment initiatives. Future researchers and subjects will be concerned about several new study fields. More investigation into the variations in company industry levels is needed, according to this study. The link between company features and cash ownership should be investigated, particularly in the utilities and financial services industries.

Conflict of Interest

There is no conflict of interest between the authors in this manuscript.

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Appendixes

The results are robust in nature, but the magnitude of the variable is different across those countries.

Table 4: Estimation Results Between Cash Holdings and Firm-Specific Factors, Country-Specific Factors for Asian and European Firms

Cash holding is the dependent variable in all the columns.				
	One Step System GMM			
	Model A		Model B	
	Europe	Asia	Europe	Asia
Constant	-0.034	0.181***	0.035**	0.308***
Cash (t-1)	-0.037	-0.046	-0.018	-0.037
	0.752***	-0.045	0.658***	-0.131**
	-0.045	-0.049	-0.034	-0.0523
FS	0.005**	0.025***	0.005***	0.022***
	-0.004	-0.007	-0.0006	-0.004
Cg	-0.085***	0.004*	-0.050**	-0.085**
	-0.045	-0.003	-0.025	-0.048
Ip	-0.254*	0.030***	-0.250**	0.067
	-0.152	-0.005	-0.089	-0.048
FD	0.006**	0.045***	0.006**	0.019**
	-0.001	-0.005	-0.002	-0.005
Ocf	0.076	-0.008	-0.043	0.038***
	-0.11	-0.014	-0.066	-0.006
Pe	0.092**	0.352**	0.043	0.145
	-0.043	-0.087	(0,045)	-0.152
Nwc	-0.928	-0.158**	-0.092***	0.037
	-0.0453	-0.073	-0.03	-0.047
Ce	-0.005***	-0.012**	-0.005***	-0.022*
	-0.003	-0.006	-0.002	-0.034
Fmd	-0.019***	-0.012**	-0.073**	-0.030**
	-0.005	-0.006	-0.052	-0.035
WGI	-0.076**	0.050**	-0.044***	0.043*
	-0.063	-0.035	-0.008	-0.045
AR(1)	0	0	0	0
AR(2)	0.253	0.352	0.452	0.156
Sargan / Hansen	0.71	0.187	0.57	0.62
Instruments	289	366	311	334
No of groups	1350	1237	933	956

Note: This table describes the consequences correlated to the one-step scheme Generalised Method of Moment (GMM) in a dynamic panel model that sorted two groups of firms (large and small firms). Model A declaration of the results linked to small size firms of Europe and Asia, whereas Model B represents the large size firms of Europe and Asia. Firms are classified as large firms if firm sizes are more significant than the median value, whereas firms below are categorised as small firms. The significant value of AR (1) shows the existence of first-order serial correlation that null hypothesis of no first dissimilarity auto-correlation between the error terms is discarded. Nonetheless, AR (2) is an insignificant presentation with no second-order serial correlation in level regression between error terms. Sargan/Hansen test over id worth is insignificant, representative of the authority of utensils and are not over recognised. Generally, the results of AR (1), AR (2), and Sargan/Hansen test show that GMM is appropriately particular with no classification subjects.

Table 5: Estimation Results Between Cash Holdings and Firm-Specific Factors

Cash holding is the dependent variable in all the columns				
Two-Step System GMM				
Variables	Model A		Model B	
	Europe	Asia	Europe	Asia
Constant Cash (t-1) FS	-0.071** (0.036)	0.187*** (0.028)	0.034*** (0.036)	0.234*** (0.042)
Cg	0.769*** (0.021)	-0.203** (0.045)	0.730*** (0.024)	-0.170*** (0.031)
Ip	0.007*** (0.0008)	0.038*** (0.004) 0.078* (0.044)	0.007*** (0.0005)	0.031*** (0.025)
FD	-0.038** (0.013) -0.331*** (0.072) 0.003** (0.001)	0.027*** (0.003)	-0.046*** (0.012)	-0.078** (0.025)
Ocf	0.041 (0.057) 0.056** (0.019)	-0.01 (0.011) 0.137** (0.056)	0.006*** (0.001) -0.018 (0.042) 0.062** (0.020)	0.014*** (0.003) 0.028*** (0.004) 0.130** (0.059)
Pe	-0.051*** (0.012)	-0.228*** (0.043)	-0.070*** (0.014)	-0.060** (0.030)
Nwc Ce Fmd	-0.004** (0.001)	-0.060** (0.024)	-0.004*** (0.001)	-0.049*** (0.014)
WGI	-0.019*** (0.004) -0.075** (0.030)	-0.080** (0.036) 0.037* (0.020)	-0.072** (0.020) -0.070** (0.026)	-0.038* (0.022) 0.053* (0.019)
AR(1)	0	0	0	0
AR(2)	0.482	0.81	0.173	0.124
Sargan / Hansen	0.5	0.455	0.273	0.437
Instruments	278	273	288	389
No of groups	1240	1256	976	932

Note: This table describes the consequences correlated to the one-step scheme Generalised Method of Moment (GMM) in a dynamic panel model that sorted two groups of firms (large and small firms). Model A declaration of the results linked to small size firms of Europe and Asia, whereas Model B represents the large size firms of Europe and Asia. Firms are classified as large firms if firm sizes are more significant than the median value, whereas firms below are categorised as small firms. The significant value of AR (1) shows the existence of first-order serial correlation that null hypothesis of no first dissimilarity auto-correlation between the error terms is discarded. Nonetheless, AR (2) is an insignificant presentation with no second-order serial correlation in level regression between error terms. Sargan/Hansen test over id worth is insignificant, representative of the authority of utensils and are not over recognised. Generally, the results of AR (1), AR (2), and Sargan/Hansen test show that GMM is appropriately particular with no classification subjects.