

[DOI: 10.20472/EFC.2023.018.007](https://doi.org/10.20472/EFC.2023.018.007)

IMAD RAHIM

MUST Business School, National University of Sciences and Technology, Pakistan

REHMAN U. MIAN

MUST Business School, National University of Sciences and Technology, Pakistan

AFFAN MIAN

University of Chicago Booth School of Business, United States

COUNTRY-LEVEL FOREIGN INSTITUTIONAL INVESTMENT HORIZONS, EXCESS CASH HOLDINGS, AND FIRM VALUE: INTERNATIONAL EVIDENCE

Abstract:

Using a sample of 15,332 firms from 32 countries over 2007 and 2018, this study investigates the impact of country-level heterogeneity in foreign institutional investment horizons on the value of excess cash holdings. We use a country-level adjustment to the investment horizon approach of Gaspar et al. (2005) to measure the country-level horizons of foreign institutional investors (FIIs). The findings reveal that long-term country-level FIIs significantly increase the value of excess cash holdings. The impact of short-term country-level FIIs remains statistically insignificant. We obtain qualitatively unchanged results in the additional checks for robustness. Overall, our results highlight the significance of country-level heterogeneity in the monitoring efficacy of FIIs in corporate strategic decisions across individual portfolio countries.

Keywords:

Investment horizon; Cash holdings; Foreign institutional ownership; International corporate governance, Firm value

JEL Classification: G32, G23, G34

1. Introduction

Agency theories suggest that the availability of corporate resources to extract private benefits may decrease firm value (Frésard and Salva, 2010). Although managers may exploit different assets that benefit them, cash is the most risky asset (Myers and Rajan, 1998). Firms can hold cash either due to precautionary motive or agency motive. The precautionary motive suggests that future cash needs may induce managers to hold cash in order to avoid costly external financing. The agency motive suggests that firm managers accumulate cash to benefit themselves by extracting private benefits. Agency costs may increase due to inefficient cash utilization which may negatively affect firm value, especially in environments of weak governance (Pinkowitz et al., 2006). However, strong governance can limit the self-serving managerial behavior to make inefficient cash utilization decisions. Overall, these studies suggest that corporate governance can possibly reduce the managerial conflicts of interest and promote efficient utilization of cash holdings.

Although there exist several governance mechanisms that improve the resource allocation decisions of the firms, the literature highlights institutional investors governance role in portfolio firms (e.g., Dittmar and Mahrt-Smith, 2007; Harford et al., 2008, Ward et al., 2018). These studies highlight that institutional investors can effectively monitor the self-serving managerial behavior that reduces conflicts of interest and increases the valuation of (excess) cash in domestic portfolio firms. However, other studies indicate that institutional investors may perform different monitoring in foreign portfolio firms due to country-specific barriers to effective governance (Kalev et al., 2008; La Porta et al., 1998; La Porta et al., 2002; Leuz et al., 2009). In particular, informational constraints may reduce the monitoring effectiveness of foreign institutional investors (FIIs) in portfolio countries. Previous studies (Ilyas et al., 2021; Karim and Ilyas., 2020; Loncan, 2020) that link the role of FIIs with the valuation of (excess) cash assume that the information acquisition and monitoring costs are homogenous across all portfolio countries. Therefore, it is important to understand whether FIIs' monitoring effectiveness is similar across all portfolio firms from different countries.

This study investigates whether the country-level heterogeneity in the monitoring efficacy of FIIs relates to their role in the valuation of excess cash. To measure the monitoring efficacy of FIIs in each portfolio country, we use a country-level adjustment to the measure of Gaspar et al. (2005). Previous studies use the conventional approach to classify FIIs as those with shorter- and longer investment horizons considering all of the portfolio firms in different countries. We differ from the prior literature by classifying short- and long-term FIIs using their investment horizons in each portfolio country. Therefore, our country-level portfolio turnover approach can account for the heterogeneity in the efficacy of FIIs to perform better monitoring and increase the valuation of excess cash in individual portfolio countries.

Using our country-level portfolio turnover approach, long-term FIIs rather than short-term, can effectively monitor the self-serving managers and promote efficient cash utilization decisions. Prior literature shape our expectations (Attig et al., 2012), suggesting that institutional investors with a longer investment horizon are more equipped to acquire monitoring-related information essential for the effective governance of portfolio firms (Gaspar et al., 2005). Using 15,332 firms from 32 non-U.S. countries between 2007 and 2018, this study shows that longer country investment horizons of FIIs increase the valuation of excess cash. The result remains consistent in all the additional tests for robustness.

Our study contribution is multifold. First, it contributes to the corporate governance literature examining the significant role of institutional investors across foreign portfolio firms. Second, we examine the impact of FIIs on the corporate cash policy (Ilyas et al., 2021; Karim and Ilyas., 2020; Loncan, 2020) and complement the literature by showing that country-level heterogeneity can affect the monitoring effectiveness of FIIs to improve the valuation of excess cash. Third, we contribute by highlighting that a longer country-level investment horizon is important for FIIs to effectively monitor all the portfolio firms in a portfolio country. Fourth, we employ a large dataset from 32 developed and emerging countries to relate the relationship between FIIs' monitoring role and the valuation of excess cash.

2. Literature review

Previous literature provides multiple explanations on the use of cash holdings. "Precautionary motive" may induce firms to accumulate cash (Almeida et al., 2004). Similarly, "spending motive" may motivate firms to hold cash (Harford et al., 2008). However, Jensen (1986) argue that holding excess cash by firms may be risky because the managerial propensity to misuse excess cash in value-destroying investments is likely to be high. Myers and Rajans (1998) argue that managers are more likely to convert the most liquid assets (i.e. cash) of the firm into private benefits. These arguments are supported by the existing empirical evidence. Dittmar and Mahrt-Smith (2007) suggest that the magnitude of agency conflicts and governance affect the valuation of excess cash (Fresard and Salva, 2010).

Given that improved governance can mitigate market imperfections such as agency problems, Ward et al. (2018) examines the role of institutional ownership in cash utilization decisions and find that it can improve the utilization of excess cash. Given their independence and superior monitoring information, another set of literature assesses the governance role of FIIs in cross-border portfolio firms. Financial globalization has enabled FIIs to increase cross-border equity investments in several portfolio firms. These equity investments allow FIIs to monitor firm management and improve the performance of the firms (Aggarwal et al., 2011).

Recent literature on equity ownership by FIIs and the valuation of cash provide evidence that FIIs improve the valuation of excess (cash). For instance, Loncan (2020) shows that FIIs increase the valuation of cash in a sample of firms from emerging market. Ilyas et al. (2021) find that FIIs improve the utilization of excess cash in Pakistan. Similarly, Karim and Ilyas (2020) provide similar results for Japanese firms. Unlike Loncan (2020), Ilyas et al. (2021), and Karim and Ilyas (2020), which implicitly assume FIIs as a homogenous group, this paper considers FIIs as a heterogenous group in individual portfolio countries as they are likely to vary in terms of abilities and incentives needed to perform their governance role in different countries.

This paper examines the role of FIIs with country-level investment horizons in determining cash utilization decisions. This study uses a country-level adjustment to the conventional institutional measure of Gaspar et al. (2005) in order to capture the varying degree of informational constraints in individual portfolio countries. Previous studies (Aguilera et al., 2017; Bena et al., 2017) commonly categorize institutions as being short- or long-term based on the entire portfolio (Döring et al., 2021), while we classify institutions into short- and long-term considering the fraction of their portfolio positions individually in all foreign countries.

Consequently, our adjustment effectively captures the previously unexplored country-level heterogeneity in the monitoring efficacy of FIIs.

Based on the prior literature (e.g., Attig et al., 2012; Gaspar et al., 2005), which suggests that long-term institutional investors have strong incentives to acquire monitoring-related information essential for effective governance of portfolio firms (Driss et al., 2021; Elyasiani and Jia, 2010), we form the following hypothesis:

H₁: The positive association between equity ownership and the valuation of excess cash is driven mainly by FIIs with longer country-level investment horizons, rather than shorter country-level investment horizons.

3. Methodology

3.1. Sample

Our study considers firms from 32 countries over 2007-2018. We extract corporate ownership data from S&P Capital IQ and financial data from COMPUSTAT Global. Financial firms (SIC between 6000-6999), utilities (SIC between 4900-4999), and firm-year observations with zero assets are also removed from the sample. The remaining sample includes 15,332 firms with 124,124 observations which is reduced to 12,675 firms with 67,945 firm-year observations, after excluding 56,179 observations with negative excess cash holdings. We adjust for outliers by winsorizing all variables except equity ownership measures at the 1st and 99th percentile.

3.2. Foreign institutional ownership

Following the methodology of Ferreira and Matos (2008), we utilize the Public Ownership database of S&P Capital-IQ to extract ownership data. We measure foreign institutional ownership (FIO) as the percentage of common stockholdings by all FIIs.

3.3. Country-level investment horizon of FIIs

We use a country-level adjustment to the institutional measure of Gaspar et al. (2005) and compute the investor- and country-level investment horizons.

In particular, for every quarter, we compute the churn ratio in each country for each institutional investor, labeled $CR_{k,c,t}$ in the following way:

$$CR_{k,c,t} = \frac{\sum_{i=1}^{N_{k,c,t}} |n_{k,c,i,t} p_{i,t} - n_{k,c,i,t-1} p_{i,t-1} - n_{k,c,i,t-1} \Delta p_{i,t}|}{\sum_{i=1}^{N_{k,c,t}} \frac{n_{k,c,i,t} p_{i,t} + n_{k,c,i,t-1} p_{i,t-1}}{2}}$$

Eq. (1)

In Eq. (1), $n_{k,c,i,t}$ is the number of shares of firm i in the portfolio of investor k in country c in quarter t , $P_{i,t}$ is the share price of firm i in quarter t , and $N_{k,c,t}$ is the number of positions in the

portfolio of investor k in country c in quarter t . $CR_{k,c,t}$ measure the churn rate for each institutional investor k in country c in quarter t .

Following Yan and Zhang (2009), to minimize the effect of periods with an unusually high or low churn ratio, we use the mean churns using the past four quarters' information for each investor k in country c in quarter t . Next, in line with Bena et al. (2017), in individual country-quarters, we categorize FII into short term and long term as shown below:

$$IH_{k,c,t} = \begin{cases} \text{Short Term,} & \text{if } CR_{k,c,t} > Median_{c,t}, \\ \text{Long Term,} & \text{if } CR_{k,c,t} < Median_{c,t}, \end{cases}$$

Eq. (2)

In Eq. (2), $IH_{k,c,t}$ represents the institutional investment horizon of investor k in country c in quarter t . $Median_{c,t}$ is the median churn rate in country c in quarter t . FIIs are classified as investors with shorter country-level investment horizons when their $CR_{k,c,t}$ is greater than the $Median_{c,t}$, while FIIs are classified as investors with longer country-level investment horizons when their $CR_{k,c,t}$ is lower than $Median_{c,t}$.

Finally, in a given firm-year, ST_COUNT_FIO (LT_COUNT_FIO) is defined as the percentage of common stockholdings by all FIIs with shorter (longer) country-level horizons.

3.4. Model specification

Following Dittmar and Mahrt-Smith (2007), we measure excess cash holdings (EX_CASH) as the amount of cash holdings above the predicted cash level (Frésard and Salva, 2010). We consider firms with positive excess cash holdings in this study. We estimate the expected level of cash holdings using the following specification:

$$CASH_{i,t} = \alpha + \beta_1 SIZE_{i,t} + \beta_2 CFLOW_{i,t} + \beta_3 NWC_{i,t} + \beta_4 MTOB_{i,t} + \beta_5 CAPEX_{i,t} + \beta_6 LEV_{i,t} \\ + \beta_7 RD_{i,t} + \beta_8 DIV_{i,t} + \beta_9 ACQ_{i,t} + \beta_{10} CFLOW_SIGMA_{i,t} + YearFE + FirmFE + \varepsilon_{i,t}$$

Eq. (3)

Where CASH is the amount of cash holdings. The firm-level controls include firm size (SIZE), cash flow (CFLOW), net working capital (NWC), market-to-book ratio (MTOB), capital expenditures (CAPEX), total debt (LEV), research and development expenses (RD), dummy for dividend paying firms (DIV), acquisition expenses (ACQ), and cash flows from operations (CFLOW_SIGMA) (Dittmar and Mahrt-Smith, 2007; Opler et al., 1999).

We consider the specification of Fama and French (1998) to examine the impact of short- and long-term country-level FIIs on the valuation of excess cash as shown below:

$$\begin{aligned}
MV_{i,t} = & \alpha + \beta_1 ST_COUNT_FIO_{i,t-1} + \beta_2 LT_COUNT_FIO_{i,t-1} + \theta_1 EX_CASH_{i,t} \\
& + \theta_2 (ST_COUNT_FIO_{i,t-1} \times EX_CASH_{i,t}) \\
& + \theta_3 (LT_COUNT_FIO_{i,t-1} \times EX_CASH_{i,t}) + \theta_4 (DIO_{i,t-1} \times EX_CASH_{i,t}) \\
& + \delta_1 DIO_{i,t-1} + \delta_2 EAR_{i,t} + \delta_3 \Delta EAR_{i,t} + \delta_4 \Delta EAR_{i,t+1} + \delta_5 RD_{i,t} + \delta_6 \Delta RD_{i,t} \\
& + \delta_7 \Delta RD_{i,t+1} + \delta_8 DIV_{i,t} + \delta_9 \Delta DIV_{i,t} + \delta_{10} \Delta DIV_{i,t+1} + \delta_{11} INT_{i,t} \\
& + \delta_{12} \Delta INT_{i,t} + \delta_{13} \Delta INT_{i,t+1} + \delta_{14} \Delta NA_{i,t} + \delta_{15} \Delta NA_{i,t+1} + \delta_{16} \Delta MV_{i,t+1} \\
& + YearFE + IndustryFE + CountryFE + \varepsilon_{i,t}
\end{aligned}$$

Eq. (4)

where MV is the market value of the firm, ST_COUNT_FIO and LT_COUNT_FIO are defined in Section 3.3, and EX_CASH in Section 3.4. We include several firm-level controls (δ_1 - δ_{16}) that affect the firm value in Eq. (4). In line with the literature on foreign institutional monitoring (e.g., Aggarwal et al., 2011), our model includes domestic institutional ownership (DIO) as a control variable in the main regression specification (Ferriera and Matos, 2008). We define DIO as the percentage of common stockholdings by all DIOs. Additionally, we control for other sources of corporate valuation (Fama and French, 1998), including earnings before extraordinary items (EAR), research and development expenses (RD), common dividend paid (DIV), interest expenses (INT), net total assets (NA), and the future change in market value. We include past (ΔX_t) and future (ΔX_{t+1}) changes in Eq. (4) to control for investors' expectations that may affect the firm value. Specifically, ΔX_t represents the change in X from $t-1$ to t , while ΔX_{t+1} represents the change from t to $t+1$.

4. Results and Discussion

4.1. Descriptive statistics by country

Table 1 shows the number of observations (N), percentage of observations (%), mean values of FIO, ST_COUNT_FIO, and LT_COUNT_FIO. The country-wide composition exhibits strong variation across the countries. For instance, China (Argentina) has the highest (lowest) number of observations. The mean values of FIO, ST_COUNT_FIO, and LT_COUNT_FIO show a strong variation across the sampled countries.

Table 1: Descriptive statistics by country

	N	%	FIO	ST_COUNT_FIO	LT_COUNT_FIO
Argentina	176	0.26%	0.006	0.005	0.002
Australia	3,365	4.95%	0.059	0.028	0.030
Austria	202	0.30%	0.124	0.063	0.057
Belgium	342	0.50%	0.107	0.038	0.057
Brazil	905	1.33%	0.000	0.000	0.000
Canada	2,634	3.88%	0.150	0.077	0.071
China	12,379	18.22%	0.023	0.013	0.008
Denmark	406	0.60%	0.086	0.041	0.041

Finland	473	0.70%	0.104	0.038	0.062
France	2,094	3.08%	0.079	0.030	0.045
Germany	1,862	2.74%	0.135	0.066	0.060
Greece	719	1.06%	0.264	0.116	0.058
India	11,296	16.63%	0.038	0.015	0.022
Indonesia	557	0.82%	0.093	0.037	0.052
Ireland	211	0.31%	0.610	0.334	0.262
Italy	788	1.16%	0.116	0.060	0.046
Japan	10,401	15.31%	0.065	0.036	0.028
Malaysia	3,536	5.20%	0.041	0.013	0.027
Mexico	318	0.47%	0.076	0.031	0.043
Netherlands	338	0.50%	0.264	0.124	0.128
New Zealand	375	0.55%	0.085	0.022	0.061
Norway	447	0.66%	0.157	0.059	0.092
Pakistan	1,145	1.69%	0.015	0.003	0.011
Portugal	197	0.29%	0.070	0.033	0.035
Singapore	1,954	2.88%	0.041	0.016	0.023
South Africa	835	1.23%	0.179	0.076	0.097
South Korea	3,170	4.67%	0.039	0.021	0.018
Spain	449	0.66%	0.104	0.054	0.041
Sweden	1,342	1.98%	0.080	0.030	0.047
Switzerland	666	0.98%	0.214	0.089	0.114
Turkey	1,035	1.52%	0.039	0.020	0.017
United Kingdom	3,328	4.90%	0.231	0.140	0.086
All Countries	67,945	100%	0.071	0.035	0.033

This table shows the description of sample firms by country and the mean values of our institutional measures. The total number of firm-year observations are 67,945 from 12,675 firms in 32 countries over the period 2007-2018.

Source: Our own country-wide descriptive analysis based on the sample data.

4.2. Descriptive statistics of the variables

In Table 2, the mean on MV is 2.888 and EX_CASH is 0.312. Similarly, the mean FIO is 7.1%, DIO is 9.8%, ST_COUNT_FIO is 3.5%, and LT_COUNT_FIO is 3.3%. All these institutional variables vary with respect to their standard deviations that are 39.5%, 16.5%, 22.1%, and 9.5%, respectively. The firm-level controls also demonstrate statistics that are similar to other studies (e.g., Ward et al., 2018).

Table 2: Descriptive statistics

Variable	N	Mean	Std. Dev.	p25	Median	p75
MV	67,945	2.888	4.261	1.059	1.533	2.791
EX_CASH	67,945	0.312	1.306	0.039	0.107	0.269
FIO	67,945	0.071	0.395	0.000	0.006	0.084
ST_COUNT_FIO	67,945	0.035	0.221	0.000	0.000	0.031
LT_COUNT_FIO	67,945	0.033	0.095	0.000	0.000	0.032
DIO	67,945	0.098	0.165	0.000	0.040	0.139

EAR	67,945	-0.058	0.388	-0.032	0.009	0.047
Δ EAR	67,945	0.005	0.205	-0.022	0.002	0.026
Δ EAR _{t+1}	67,945	0.010	0.193	-0.023	0.002	0.028
RD	67,945	0.027	0.089	0.000	0.000	0.014
Δ RD	67,945	0.002	0.020	0.000	0.000	0.000
Δ RD _{t+1}	67,945	0.003	0.022	0.000	0.000	0.001
DIV	67,945	0.018	0.039	0.000	0.002	0.019
Δ DIV	67,945	0.002	0.017	0.000	0.000	0.001
Δ DIV _{t+1}	67,945	0.002	0.018	0.000	0.000	0.001
INT	67,945	0.014	0.019	0.001	0.007	0.019
Δ INT	67,945	0.000	0.009	-0.001	0.000	0.002
Δ INT _{t+1}	67,945	0.001	0.010	-0.001	0.000	0.002
Δ NA	67,945	0.041	0.268	-0.038	0.053	0.159
Δ NA _{t+1}	67,945	0.138	0.369	-0.025	0.064	0.199
Δ MV _{t+1}	67,945	0.339	2.331	-0.194	0.055	0.418

This table reports descriptive statistics of the variables over the entire sample period. It includes the total number of observations (N), mean, standard deviation, 25th percentile, median, and 75th percentile values.

Source: Our own descriptive analysis based on the sample data.

4.3. Correlation analysis

Table 3 shows the correlation analysis of the main variables.¹ MV has a positive association with the ownership variables. FIO shows a high correlation with ST_COUNT_FIO and LT_COUNT_FIO because these are multiple classifications of the same variable, FIO.

Table 3: Correlation matrix

Variables	1	2	3	4	5
1 MV	1.00				
2 EX_CASH	0.02	1.00			
3 FIO	0.00	-0.00	1.00		
4 ST_COUNT_FIO	0.00	-0.00	0.93	1.00	
5 LT_COUNT_FIO	0.00	-0.00	0.79	0.63	1.00

This table presents the pairwise correlation coefficients of our main variables. We show the significance of the results in bold at 5% ($p < 0.05$) level.

Source: Our own correlation analysis based on the sample data.

4.4. Regression analysis

In columns (1) to (3) of Table 4, we show our baseline results by regressing MV on the interaction between excess cash and institutional ownership measures of FIIs. In columns (4) to (6), we check for the robustness of our main results.

Column (1) report that ST_COUNT_FIO \times EX_CASH is statistically insignificant, suggesting that FIIs with shorter country-level investment horizons do not affect the value of excess cash holdings. Column (2) shows a positive coefficient estimate on LT_COUNT_FIO \times EX_CASH,

¹ We do not report the correlations of the firm-level controls due to page space limitation (i.e., All text to be in portrait form as per the "Instructions to Author" guideline of the conference).

which is also statistically significant, meaning that FIIIs with longer country-level investment horizons increase the value of excess cash holdings. In column (3), we include both $ST_COUNT_FIO \times EX_CASH$ and $LT_COUNT_FIO \times EX_CASH$ in the same regression and find that long-term FIIIs significantly increase the value of excess cash holdings. These findings provide support for the hypothesis (H_1).

Next, in column (4), to address potential concerns that countries with a substantial number of observations may disproportionately impact our results, we estimate the baseline regression after excluding the three countries (i.e., China, India, and Japan), as depicted in Table 1. In column (5), we report the estimation results of alternative specification of Eq. (4) after incorporating year and firm fixed effects to account for the potential unobserved period- and firm-specific heterogeneity. Finally, in column (6), we cluster the standard errors at the country-level. We obtain qualitatively similar findings in these tests.

Table 4: Country-level investment horizons of FIIIs and the value of excess cash holdings

	Baseline models			Excluding large N countries	Alternative fixed effects	Alternative clustering
	(1)	(2)	(3)	(4)	(5)	(6)
ST_COUNT_FIO	-0.035 (0.071)		0.206*** (0.055)	0.268*** (0.082)	0.190** (0.079)	0.206** (0.081)
ST_COUNT_FIO × EX_CASH	0.957 (0.620)		0.475 (0.622)	0.869 (0.825)	0.504 (0.580)	0.475 (0.669)
LT_COUNT_FIO		-0.561*** (0.175)	-0.959*** (0.170)	-1.112*** (0.248)	-0.546 (0.361)	-0.959*** (0.328)
LT_COUNT_FIO × EX_CASH		2.023** (0.975)	2.017** (0.989)	1.985* (1.013)	1.018*** (0.358)	2.017* (1.057)
DIO	-0.142 (0.094)	-0.077 (0.097)	-0.130 (0.089)	-0.254* (0.131)	-0.328*** (0.102)	-0.130 (0.230)
DIO × EX_CASH	0.719** (0.332)	0.627* (0.326)	0.609* (0.326)	0.376 (0.365)	0.800** (0.396)	0.609 (0.500)
EX_CASH	0.597*** (0.038)	0.601*** (0.038)	0.593*** (0.038)	0.503*** (0.039)	0.473*** (0.045)	0.593*** (0.169)
EAR	-3.942*** (0.124)	-3.931*** (0.124)	-3.930*** (0.124)	-4.398*** (0.199)	-1.764*** (0.298)	-3.930*** (0.652)
ΔEAR	1.431*** (0.148)	1.420*** (0.148)	1.422*** (0.148)	1.315*** (0.164)	0.744*** (0.123)	1.422*** (0.144)
ΔEAR _{t+1}	-0.996*** (0.162)	-0.994*** (0.162)	-0.997*** (0.161)	-1.403*** (0.189)	-0.475** (0.222)	-0.997* (0.537)
RD	7.112*** (0.393)	6.976*** (0.397)	6.957*** (0.396)	7.087*** (0.712)	3.573*** (0.820)	6.957*** (0.473)
ΔRD	6.215*** (1.377)	6.221*** (1.378)	6.194*** (1.376)	2.249 (1.558)	3.534*** (0.773)	6.194* (3.505)
ΔRD _{t+1}	14.988*** (1.183)	14.966*** (1.185)	14.934*** (1.184)	12.556*** (1.434)	7.976*** (1.165)	14.934*** (2.550)
DIV	25.499*** (0.587)	25.522*** (0.586)	25.517*** (0.586)	22.659*** (1.171)	14.036*** (1.106)	25.517*** (2.718)
ΔDIV	1.005 (1.109)	1.003 (1.110)	0.988 (1.110)	-0.855 (1.416)	0.140 (1.248)	0.988 (3.890)
ΔDIV _{t+1}	17.107*** (1.046)	17.110*** (1.045)	17.118*** (1.045)	16.481*** (1.711)	5.800*** (1.113)	17.118*** (2.160)
INT	1.633	1.753*	1.749*	8.150***	6.359***	1.749

	(1.057)	(1.056)	(1.056)	(2.317)	(1.699)	(3.776)
Δ INT	-15.931***	-15.995***	-15.951***	-14.263***	-11.824***	-15.951***
	(1.973)	(1.970)	(1.969)	(2.827)	(1.667)	(5.365)
Δ INT _{t+1}	-11.950***	-11.883***	-11.814***	-7.970***	-3.079*	-11.814***
	(1.791)	(1.789)	(1.787)	(2.575)	(1.749)	(5.227)
Δ NA	0.509***	0.522***	0.517***	1.008***	-0.028	0.517
	(0.088)	(0.088)	(0.088)	(0.115)	(0.060)	(0.322)
Δ NA _{t+1}	1.837***	1.828***	1.827***	1.573***	1.753***	1.827***
	(0.068)	(0.068)	(0.068)	(0.095)	(0.104)	(0.378)
Δ MV _{t+1}	-0.194***	-0.194***	-0.194***	-0.123***	-0.325***	-0.194***
	(0.017)	(0.017)	(0.017)	(0.024)	(0.027)	(0.060)
Observations	67,945	67,945	67,945	33,869	66,126	67,945
Adj. R-sq	0.471	0.472	0.472	0.563	0.766	0.472
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	No	Yes
Industry FE	Yes	Yes	Yes	Yes	No	Yes
Firm FE					Yes	
Clustering by						Country

This table provides results concerning the association between country-level investment horizons of FIIs and the value of excess cash holdings. The dependent variable is firm value (MV). In columns (1) to (3), we provide results of the interaction effect of FIIs with shorter- (ST_COUNT_FIO \times EX_CASH) and longer (LT_COUNT_FIO \times EX_CASH) country-level investment horizons and value of excess cash holdings. In columns (4) to (6), we check the robustness of the results. Column (4) shows results after excluding countries with large firm-year observations. Column (5) show results with year and firm fixed effects. Column (6) show results with clustering by country. Except column (5), all regression specifications show estimates with country, Fama & French 48-industry, and year fixed effects. ***, **, and * show the significance of the results at 1% ($p < 0.01$), 5% ($p < 0.05$), and 10% ($p < 0.1$) levels, respectively.

Source: Our own regression analysis based on the sample data.

5. Conclusion

This study investigates whether the country-level heterogeneity in the monitoring effectiveness of FIIs relates to their role in the value of the corporate excess cash holdings. We measure the monitoring effectiveness of FIIs in each portfolio country. We use a country-level adjustment to the institutional portfolio turnover measure of Gaspar et al. (2005). We use a sample of 15,332 firms from 32 countries over 2007-2018. We find that FIIs with longer country-level investment horizons improve the valuation of excess cash. We obtain qualitatively similar findings in the robustness checks. This study collectively implies that policy makers should recognize the importance of foreign institutional monitoring and take steps to create an environment that facilitates effective monitoring.

The paper has a number of limitations that present several areas for future research. First, the present study did not consider the internal measures of governance, other than the external monitoring role of FIIs in corporate strategic decisions, such as governance quality and board characteristics. Second, the study overlooks other financing and investment choices, such as leverage. Third, the study did not include data from recent years due to data limitations.

References

- Aggarwal, R., Erel, I., Ferreira, M. and Matos, P., 2011. Does governance travel around the world? Evidence from institutional investors. *Journal of Financial Economics*, 100(1), pp.154-181.
- Aguilera, R.V., Desender, K.A., Lamy, M.L.P. and Lee, J.H., 2017. The governance impact of a changing investor landscape. *Journal of International Business Studies*, 48(2), pp.195-221.

- Almeida, H., Campello, M. and Weisbach, M.S., 2004. The cash flow sensitivity of cash. *The Journal of Finance*, 59(4), pp.1777-1804.
- Attig, N., Cleary, S., El Ghouli, S. and Guedhami, O., 2012. Institutional investment horizon and investment–cash flow sensitivity. *Journal of Banking & Finance*, 36(4), pp.1164-1180.
- Bena, J., Ferreira, M.A., Matos, P. and Pires, P., 2017. Are foreign investors locusts? The long-term effects of foreign institutional ownership. *Journal of Financial Economics*, 126(1), pp.122-146.
- Dittmar, A. and Mahrt-Smith, J., 2007. Corporate governance and the value of cash holdings. *Journal of Financial Economics*, 83(3), pp.599-634.
- Döring, S., Drobetz, W., El Ghouli, S., Guedhami, O. and Schröder, H., 2021. Institutional investment horizons and firm valuation around the world. *Journal of International Business Studies*, 52, pp.212-244.
- Driss, H., Drobetz, W., El Ghouli, S. and Guedhami, O., 2021. Institutional investment horizons, corporate governance, and credit ratings: International evidence. *Journal of Corporate Finance*, 67, p.101874.
- Elyasiani, E. and Jia, J., 2010. Distribution of institutional ownership and corporate firm performance. *Journal of Banking & Finance*, 34(3), pp.606-620.
- Fama, E.F. and French, K.R., 1997. Industry costs of equity. *Journal of Financial Economics*, 43(2), pp.153-193.
- Fama, E.F. and French, K.R., 1998. Taxes, financing decisions, and firm value. *The Journal of Finance*, 53(3), pp.819-843.
- Ferreira, M.A. and Matos, P., 2008. The colors of investors' money: The role of institutional investors around the world. *Journal of Financial Economics*, 88(3), pp.499-533.
- Frésard, L. and Salva, C., 2010. The value of excess cash and corporate governance: Evidence from US cross-listings. *Journal of Financial Economics*, 98(2), pp.359-384.
- Gaspar, J.M., Massa, M. and Matos, P., 2005. Shareholder investment horizons and the market for corporate control. *Journal of Financial Economics*, 76(1), pp.135-165.
- Harford, J., Mansi, S.A. and Maxwell, W.F., 2008. Corporate governance and firm cash holdings in the US. *Journal of Financial Economics*, 87(3), pp.535-555.
- Ilyas, M., Mian, R.U. and Safdar, N., 2021. Institutional investors and the value of excess cash holdings: empirical evidence from Pakistan. *Managerial Finance*, 48(1), pp.158-179.
- Jensen, M.C., 1986. Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*, 76(2), pp.323-329.
- Kalev, P.S., Nguyen, A.H. and Oh, N.Y., 2008. Foreign versus local investors: Who knows more? Who makes more?. *Journal of Banking & Finance*, 32(11), pp.2376-2389.
- Karim, S. and Ilyas, M., 2020. Foreign institutional investors and the contribution of cash and dividend to firm's value. *Managerial Finance*, 47(3), pp.310-325.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R.W., 1998. Law and finance. *Journal of Political Economy*, 106(6), pp.1113-1155.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R., 2002. Investor protection and corporate valuation. *The Journal of Finance*, 57(3), pp.1147-1170.
- Leuz, C., Lins, K.V. and Warnock, F.E., 2009. Do foreigners invest less in poorly governed firms?. *The Review of Financial Studies*, 22(8), pp.3245-3285.
- Loncan, T., 2020. Foreign institutional ownership and corporate cash holdings: Evidence from emerging economies. *International Review of Financial Analysis*, 71, p.101295.
- Myers, S. C., & Rajan, R. G. (1998). The paradox of liquidity. *The Quarterly Journal of Economics*, 113(3), 733-771.
- Opler, T., Pinkowitz, L., Stulz, R. and Williamson, R., 1999. The determinants and implications of corporate cash holdings. *Journal of Financial Economics*, 52(1), pp.3-46.
- Pinkowitz, L., Stulz, R. and Williamson, R., 2006. Does the contribution of corporate cash holdings and dividends to firm value depend on governance? A cross-country analysis. *The Journal of Finance*, 61(6), pp.2725-2751.

- Ward, C., Yin, C. and Zeng, Y., 2018. Institutional investor monitoring motivation and the marginal value of cash. *Journal of Corporate finance*, 48, pp.49-75.
- Yan, X. and Zhang, Z., 2009. Institutional investors and equity returns: are short-term institutions better informed?. *The Review of Financial Studies*, 22(2), pp.893-924.