

# Foreign Institutional Ownership and the Valuation Effect of Investment and Payout Decisions

Rehman Mian\*, Kyoko Nagata

Department of Industrial Engineering and Management, Tokyo Institute of Technology, Tokyo, Japan

\*Corresponding author: [mian.r.aa@m.titech.ac.jp](mailto:mian.r.aa@m.titech.ac.jp)

**Abstract** We study the effect of foreign ownership on firm valuation through strategic corporate decisions related to investment and payouts. Using data from Japan, we find evidence that foreign institutional investors lead to higher firm value through better and efficient investment and payout decisions. Our results indicate that through increased monitoring, foreign investors mitigate the possibility of sub-optimal investments and unnecessary payouts by the management. We also find that firms with increased foreign ownership use their cash reserves in ways that significantly complements the operating performance. Furthermore, our results also support the conjecture of a recent decline in the influence of Japanese main banks on firm's strategic decisions.

**Keywords:** *foreign ownership, bank dependence, Japan, corporate governance, firm value, investment, payout policy*

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## 1. Introduction

Prior literature ([1,12,13]) highlights the importance of foreign investors in exerting monitoring efforts to influence management in order to address the agency problems that are associated with the separation of ownership and control. It is widely argued that firms with higher proportion of equity ownership by foreign investors have better operating performance and higher firm valuation ([1,12,30,38]). In addition, as an outcome of their potent monitoring, it is suggested that foreign investors influence strategic policies of the firm ([3,8,12,31]). However, there is little empirical evidence regarding influence of foreign ownership on the valuation effect of such managerial decisions. In accordance with the explanation proposed by Jensen and Meckling [21] on how ownership structure impacts firm value, in this study we predict that foreign ownership affects firm value through its impact on important strategic decisions.

In this paper we examine how increased equity ownership by foreign investors, impacts firm value through its impact on the strategic managerial decisions that are directly related with the use of corporate resources. Ferreira and Matos [12] and Aggarwal et al. [1] find a significant relation between foreign ownership and firm valuation. We extend and compliment this line of research by showing how foreign ownership affects firm value. This paper hypothesize that foreign ownership influence firm value through its impact on strategic managerial decisions that are directly related with the use of corporate resources. We focus on firm's investment and payout policy and predict that these decisions lead to enhanced value when they are effectively used. We predict that with

increased foreign ownership, strategic managerial decisions related to investments and payouts should be more beneficial in increasing corporate value. Our prediction is based on the rationale that firm's investment and payout decisions do not lead to enhanced value and greater firm performance unless these decisions are effectively used. We hold that increased foreign ownership, through their control on self-interested managerial behavior and efficient use of corporate resources, positively affects firm value.

Our dataset is comprised of firms from Japan over the period of 2004-2012. We focus on Japan since it provides an ideal setting to test the theoretical predictions of our study for a number of reasons. First, in recent years, the Japanese corporate governance structure has experienced a shift from a traditional bank-centered relationship based governance to a more market based structure due to a dramatic increase in the equity ownership by foreign investors, since foreign ownership significantly increased from 5.4% in 1991 to 24.7% in 2007.

Second, the efficacy of conventional Japanese governance structure, characterized by close relations with main banks and inter-corporate shareholdings ([2,19,24,29,27]), is broadly criticized in recent literature. A number of studies ([18,25,26,39,40]) report decreased value and poor firm performance for firms with close main bank ties. The suboptimal value of Japanese firms can be associated with the argument that main banks exercised their power to influence the client firm's strategic policies. For example, Weinstein and Yafeh [39] argue that banks discourage its client firms to take over risky and profitable projects. Kang and Stulz [26] find that even though firms with close main bank ties have easy access to capital, they invest less as compared to firms without any close

relations. Since, equity ownership by foreign investors lead to improved quality of corporate governance ([1,13]), the empirical predictions of our study connects increased foreign ownership to improvements in corporate governance and emphasize on the value enhancing role played by foreign investors in Japan. Hence, we predict that increased foreign ownership may have enable firms to maximize shareholder value by putting the high cash balances (Japanese firms hold considerably higher levels of cash holdings compared to firms in other countries ([11,32,33,34])) into productive use through investments or increased distributions.

We comparatively analyze the effect of foreign ownership and close bank ties on firm's strategic decisions related to investment and payouts. To proxy for close bank relationship, we use the degree of a firm's dependence on bank loans. Our empirical analysis proceeds in three stages. In the first stage, we examine the impact of foreign ownership and bank dependence on firm's investment and payout decisions. For investment decisions, we focus on capital expenditures and R&D expenditures. For payout decisions, we examine dividends and repurchase. Unlike the traditional relationship based governance, we expect that foreign investors positively affect firm's investment and payout decisions. In the second stage, we investigate how high foreign ownership and bank dependence impact the valuation of investment and payout decisions. In the third stage, we explore the impact of foreign ownership and bank dependence on operating performance when firms utilize their cash resources. We hypothesize that compared to bank dependence, firms with high foreign ownership efficiently use their cash reserves which in turn complements the operating performance.

The empirical findings of this study reveal that firms with high foreign ownership are more likely to increase R&D expenditures, dividends, and share repurchases. We do not find evidence relating bank dependence with investment and payout decisions. In terms of corporate value, we find that investment and payout decisions significantly affect value when firms have a higher proportion of foreign investor ownership. In contrast, we find no significant impact of bank dependence on the valuation of investment and payouts. Finally, we find that firms with increased foreign ownership use their cash reserves in ways that significantly compliments the operating performance. Our results also support the conjecture of a recent decline in the influence of Japanese main banks over firm's strategic decisions.

This paper compliments and extends the contemporary literature regarding the role of foreign investors. Ferreira and Matos [12] associates foreign ownership with enhanced value and better operating performance. Aggarwal et al. [1] show that foreign ownership leads to improved quality of corporate governance. We contribute to the literature by showing how foreign ownership affects firm value. We provide empirical evidence that foreign ownership leads to higher firm value and better performance through strategic decisions related to investment and payouts. In accordance with Jensen and Meckling [21] and Cho [5], we show that foreign ownership affects firm value by its effect on investment and payout decisions.

This paper is organized as follows: Section 2 provides an overview of the previous literature and develops the

hypothesis. Section 3 describes the sample, variables employed, and their calculations. Section 4 presents the empirical results. Summary and conclusion are presented in section 5.

## 2. Hypothesis Development

Previous literature indicates that foreign investors actively monitor and influence firm's management which in turn, positively affects the firm value. Wei et al. [38] suggest that foreign investors may force managers to act in ways that are in accordance with firm value maximization. Ferreira and Matos [12] provide empirical evidence regarding the impact of foreign ownership on firm value. They show that foreign investors, through their active monitoring, positively affect corporate value and operating performance. In a more recent study, Aggarwal et al. [1] also find a significantly positive association between foreign ownership and firm value. Similar results are reported in Nagaoka [30]. Another line of research, however, focuses on the role of foreign investors in influencing important managerial decisions. It is argued that foreign investors are active monitors and have the ability to influence strategic policies of the firm ([13,37]). Consistent with the existence of potent monitoring, several studies have found a significant relationship between foreign ownership and firm's strategic policies. Yet there is little empirical evidence regarding influence of foreign ownership on the valuation effect of such managerial decisions. The empirical literature on association between foreign ownership and firm's strategic policies has focused on whether foreign investors affects firm's policies without considering its possible effect on the corporate value. For instance, Ferreira and Matos [12] show that firms with high foreign ownership have lower capital expenditures. The findings of Baba [3] relate increased presence of foreign investors to increase in dividend payouts. David et al. [8] find that in the presence of growth opportunities, foreign investors enhance firm's R&D and capital expenditures. Nguyen [31] show that foreign ownership influence the risk taking behavior of firms.

In this study, we examine the relationship between foreign ownership and firm value focusing on whether foreign investors affect investment and payout decisions. Jensen and Meckling [21] argue that ownership structure significantly influence firm value through its impact on firm's investment decisions. In a similar vein, Cho [5] suggests that ownership structure affects investment which in turn, impacts firm value. In accordance with the explanation presented in Jensen and Meckling [21] and Cho [5], we base our predictions on the rationale that with increased foreign ownership, strategic managerial decisions like investments and payouts should be more beneficial in increasing the firm value. The present study focus on investment and payout decisions because our objective is to empirically investigate whether foreign ownership address the agency problems associated with the use of corporate resources. In the Japanese case, recent studies ([18,25,26,39,40]) associate the decreased value and poor firm performance of Japanese firms with close main bank ties. Firms in Japan, on average, had high cash balances, but they were reluctant to undertake profitable

and risky projects due to the power exercised by main banks to influence the client firm's strategic policies [39]. However, the governance structure of Japanese firms, dominated by stable shareholders such as banks and business corporations, significantly changed to a more market based structure as a result of a substantial increase in the proportion of shares held by foreign investors in the late 1990s. Since, equity ownership by foreign investors leads to improved quality of corporate governance ([1,13]), we predict foreign investors to address the agency problems associated with inefficient use of corporate resources and thus play a value enhancing role in Japan.

Many studies ([4,7,14]) report a significant impact of corporate governance on firm valuation and performance, and find that strong governance is related to higher firm value. This is because improved corporate governance structure enables firms to utilize their resources in ways that are more beneficial to increasing shareholder wealth. A number of recent studies has focused on the role of governance in mitigating agency costs arising from the misappropriation of corporate resources that result in higher value and better performance. Dittmar and Smith [10] find that well governed firms efficiently use their cash reserves which in turn positively impacts the operating performance. Harford et al. [17] show that well-monitored firms use cash in ways that are in line with the interests of shareholders. In a similar vein, Chung et al. [6] find that improved corporate governance enhance the market valuation of strategic investment decisions through the effective use of such decisions. Hence, we hypothesize that unlike the bank centered governance structure, with improved governance expressed by increased foreign ownership, strategic decisions like investments and

payouts should be more beneficial in increasing value and firm performance.

### 3. Data

We use a sample that consists of Japanese firms listed on Tokyo Stock Exchange for the period of 2004 to 2012. We start the sample period in 2004 because it exhibits the beginning of increased equity ownership by foreign investors. We use Nikkei Economic Electronic Database System (NEEDS) to collect firm-specific financial information and equity ownership data. We exclude financial firms, utility firms, and firms with unavailable data. The final sample of our study contains a total 10,342 firm year observations that represent 1,619 firms. To minimize the effect of outliers, we trim our firm-specific factors and dependent variables at 1% tails.

We measure the proportion of foreign ownership as sum of the holdings of all foreign institutions in a firm's stock divided by the total number of shares outstanding at the end of each fiscal year. Furthermore, we also include foreign ownership in our analysis as an indicator variable by splitting the sample into quartiles: the highest quartile of foreign ownership, representing the largest stakes of foreign investors, is coded as one. To proxy for firm's bank dependence, we follow Kang and Shivdasani [25] and include firms in the subset of sample with strong bank ties whose ratio of bank loan to total assets is above or equal to the median value for the entire sample. For calculating the median, we only include firms having some amount of bank loan outstanding.

**Table 1. Summary Statistics**

	N	Mean	Std. Dev	25th Percentile	Median	75th Percentile
Foreign Ownership	10342	0.079	0.084	0.012	0.046	0.124
Bank Loan	10342	0.154	0.130	0.048	0.128	0.233
Capital Expenditures	10342	0.029	0.054	0.001	0.024	0.054
R&D Expenditure	10342	0.011	0.015	0.000	0.003	0.016
Dividends	10342	0.003	0.004	0.000	0.000	0.005
Tobin's Q	10342	1.046	0.310	0.849	0.985	1.176
ROA	10342	0.067	0.040	0.040	0.063	0.090
Cash Holdings	10342	0.098	0.076	0.041	0.081	0.136
Leverage	10342	0.546	0.175	0.422	0.550	0.675
Firm Size	10342	10.869	1.274	9.983	10.733	11.643
Stock Return	10342	0.074	0.396	-0.181	0.013	0.259
Profitability	10342	0.023	0.110	0.005	0.018	0.038
Tax Ratio	10342	0.013	0.015	0.003	0.011	0.021
PPE	10342	0.289	0.171	0.165	0.265	0.393

This table shows the summary statistics of firm characteristics for period 2004-2012. Firm characteristics include; foreign ownership measured as is ratio of number of shares held by foreign shareholders to the number of shares outstanding. Ratio of bank loans to total assets. Capital expenditure to total assets. R&D expenditure to total assets. Dividends are the ratio of dividends paid on common stock to total assets. Tobin's Q calculated as the book value of total assets plus market value of equity minus the book value of equity divided by total assets. ROA equals operating income to totals assets. Cash holdings which is defined as the sum of cash, deposits, and marketable securities to total assets. Leverage is measured as the ratio of total debt to total assets. Size is defined as the natural logarithm of total assets. Firm's stock return. Profitability equals the ratio of net income to sales. Tax ratio is the ratio of income tax to total assets. PPE is the ratio of plant, property, and equipment to total assets.

We use indicator variable for bank dependence, where strong bank dependence is coded as one. For investment decisions, we employ capital expenditures and R&D expenditures. Our study uses two measures for payouts, common dividend and share repurchase. The sample period for share repurchase decisions begins in 2007 because of unavailable data for the period prior to 2006. To measure firm value, we follow previous literature

([12,14]) and use Tobin's Q. We calculate Tobin's Q as the book value of total assets plus market value of equity minus the book value of equity divided by total assets. To measure firm's operating performance, we adopt ROA calculated as the ratio of net income to total assets. Table 1 shows the summary statistics for foreign ownership, bank loan, investment measures, payout measures, firm value, firm performance measure, and the control variables.

## 4. Empirical Results

### 4.1. Foreign Ownership, Investment, and Payout Decisions

In this section, we present results from panel regressions where we analyze the impact of foreign ownership on firm's strategic decisions. We do this by examining the effect of foreign ownership on firm's investment and payout decisions. Table 2 reports the results of panel regressions where we use our measures of investment and payout as the dependent variables. To capture the effect of foreign ownership on future investment and payout decisions, all independent variables are lagged by one year. Whereas the dependent variables related to investment and payout are taken at time  $t$ . In all regressions, we use year and industry fixed effects in order to account for the macroeconomic effects as well as the industry effect. For the industry fixed effects, we include industry dummies based on the 2-digit Nikkei medium classification industry code.

**Table 2. Foreign Ownership, Investment, and Payout Decisions**

	[Capex]	[R&D]	[Div]	[Repur]
FOWN	0.0127 (1.407)	0.0088*** (4.563)	0.0006* (1.686)	0.0158*** (4.862)
M-to-B	0.0264*** (13.04)	0.0038*** (8.709)	0.0020*** (22.16)	0.0041*** (5.636)
Leverage	-0.0282*** (-8.191)	-0.0062*** (-8.353)	-0.0037*** (-24.16)	-0.0071*** (-5.202)
Cash	0.0116 (1.410)	-0.0062*** (-3.507)	0.0005 (1.632)	0.0078** (2.562)
Size	0.0002 (0.386)	0.0005*** (4.370)	-0.0001*** (-5.503)	-0.0010*** (-4.784)
Return	0.0004 (0.299)	-0.0006* (-1.721)		
Tang	-0.0024 (-0.653)	-0.0093*** (-11.66)		
Profit			0.0009*** (4.430)	0.0037** (2.226)
Tax Ratio			0.0186*** (11.46)	0.0063 (0.448)
N	10,342	10,342	10,342	4,452
R-squared	0.115	0.469	0.617	0.056
Year	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes

This table shows estimates of regressions of investment and payout decisions on foreign ownership. The dependent variables include ratio of capital expenditure to total assets, R&D to total assets, dividends to total assets, and share repurchase to total assets at time  $t$ . The main independent variable is one year lagged foreign ownership (Fown). Control variables, all lagged by one period. To minimize the effect of outliers, we trim our firm-specific factors and dependent variables at 1% tails. t-statistics are presented in brackets. Superscripts \*, \*\*, and \*\*\* indicate significance at 10%, 5%, and 1% confidence levels, respectively.

We start by providing empirical evidence of the impact of foreign ownership on investment decisions and show the regression results for capital expenditures in column (1) and R&D expenditures in column (2) of Table 2. The dependent variables are deflated by total assets. Following Hubbard [20] and Richardson [35], we estimate the investment model using control variables such as market-to-book ratio, leverage, ratio of cash to total assets, firm size, stock return, and asset tangibility. Results in column (1) depict a positive but insignificant relationship between

foreign ownership and capital expenditures. Even though the coefficient on foreign ownership (FOWN) is insignificant, the direction of relationship is still in accordance with the predicted sign. The results in column (2) suggest that R&D is positively related to foreign ownership (FOWN), significant at 99% confidence level. The results suggest that increased foreign ownership is associated with an increase in the R&D expenditures of the firms.

Next, we examine the relation between foreign ownership and payout policy and report the results for common dividends in column (3) and share repurchase in column (4) of Table 2. We deflate the dependent variables by total assets. In line with previous literature, we employ a number of control variables in the payout model. We control for: market-to-book ratio [36], leverage, cash to total assets, firm size, firm's profitability measured as the ratio of net income to total sales [9], and tax ratio [23]. For both of our measures of payout decisions, we find that firms with high foreign ownership in general tend to increase dividends. The coefficient on foreign ownership (FOWN) for both dividend and share repurchase is positive and significant at 99% confidence level. We next examine the impact of size of ownership stake of foreign investors on investment and payout decisions. To do this, we classify firms using the proportion of foreign ownership into the highest (high foreign ownership) and lowest quartiles (low foreign ownership).

**Table 3. Foreign Ownership, Investment, and Payout Decisions**

	[Capex]	[R&D]	[Div]	[Repur]
Low FOWN	-0.0042*** (-2.959)	0.0001 (0.221)	-0.0001*** (-3.026)	-0.0006 (-1.047)
High FOWN	0.0026* (1.947)	0.0012*** (4.172)	0.0000 (0.882)	0.0018*** (3.685)
M-to-B	0.0260*** (13.15)	0.0039*** (9.320)	0.0020*** (22.79)	0.0047*** (6.542)
Leverage	-0.0257*** (-7.452)	-0.0065*** (-8.804)	-0.0036*** (-23.92)	-0.0077*** (-5.676)
Cash	0.0120 (1.460)	-0.0060*** (-3.411)	0.0005* (1.650)	0.0083*** (2.709)
Size	-0.0004 (-0.786)	0.0006*** (5.526)	-0.0001*** (-6.194)	-0.0008*** (-3.921)
Return	0.0003 (0.223)	-0.0006* (-1.771)		
Tang	-0.0015 (-0.403)	-0.0093*** (-11.64)		
Profit			0.0009*** (4.450)	0.0037** (2.241)
Tax Ratio			0.0184*** (11.29)	0.0060 (0.431)
N	10,342	10,342	10,342	4,452
R-squared	0.116	0.469	0.618	0.055
Year	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes

This table shows estimates of regressions of investment and payout decisions on foreign ownership. The dependent variables include ratio of capital expenditure to total assets, R&D to total assets, dividends to total assets, and share repurchase to total assets at time  $t$ . The main independent variables include indicator variables for the lowest (Low FOWN) and highest quartile (High FOWN) of one year lagged foreign ownership. Control variables, all lagged by one period. To minimize the effect of outliers, we trim our firm-specific factors and dependent variables at 1% tails. t-statistics are presented in brackets. Superscripts \*, \*\*, and \*\*\* indicate significance at 10%, 5%, and 1% confidence levels, respectively.

We report the results in Table 3. For capital expenditures, the coefficients in column (1) suggest that firms with low foreign ownership tend to decrease capital expenditures, whereas high foreign ownership invest more in capital expenditures. According to column (2) of Table 3, we find that low foreign ownership (Low FOWN) does not impact the R&D expenditures of firms, the coefficient is insignificant. On the other hand, firms with high foreign ownership (High FOWN) increase their R&D expenditures. Furthermore, for dividends, we find an insignificant relation between high foreign ownership (High FOWN) and dividends. However, the coefficient on high foreign ownership (High FOWN) in column (4) shows that firms with high foreign ownership experience an increase in the share repurchase activities.

**Table 4. Bank Dependence, Investment, and Payout Decisions**

	[Capex]	[R&D]	[Div]	[Repur]
Bank-Dep	-0.0013 (-1.069)	-0.0003 (-1.453)	0.0000 (-1.014)	0.0007 (0.930)
M-to-B	0.0272*** (14.27)	0.0044*** (10.77)	0.0020*** (23.83)	0.0031** (2.151)
Leverage	-0.0277*** (-7.304)	-0.0067*** (-8.201)	-0.0037*** (-22.50)	-0.0032 (-1.252)
Cash	0.0118 (1.439)	-0.0059*** (-3.361)	0.0005 (1.613)	-0.0007 (-0.155)
Size	0.0005 (1.216)	0.0008*** (8.288)	-0.0001*** (-5.730)	-0.0010** (-2.263)
Return	0.0004 (0.254)	-0.0006* (-1.886)		
Tang	-0.0018 (-0.486)	-0.0092*** (-11.32)		
Profit			0.0009*** (4.438)	0.0085** (2.372)
Tax Ratio			0.0186*** (11.41)	-0.0052 (-0.216)
N	10,342	10,342	10,342	1,348
R-squared	0.115	0.468	0.617	0.043
Year	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes

This table shows estimates of regressions of investment and payout decisions on bank dependence. The dependent variables include ratio of capital expenditure to total assets, R&D to total assets, dividends to total assets, and share repurchase to total assets at time  $t$ . Main independent variable (Bank-dep) is the indicator variable that equals one if firm's bank loan ratio is equal or exceeds the sample median of bank loan. Control variables, all lagged by one period. To minimize the effect of outliers, we trim our firm-specific factors and dependent variables at 1% tails.  $t$ -statistics are presented in brackets. Superscripts \*, \*\*, and \*\*\* indicate significance at 10%, 5%, and 1% confidence levels, respectively.

To examine whether banks in Japan are still able to exercise their influence over strategic decisions of the firm, we investigate the effect of bank dependence on investment and payout decisions. Results are reported in Table 4. We find that there is no effect of bank dependence on all measures of investment and payout. The coefficient on bank dependence (Bank-Dep) is insignificant throughout all the measures employed. Weinstein and Yafeh [39] show that banks discourage firms to undertake risky and profitable projects. Kang and Stulz [26] find that despite of increased availability of capital, firms with main bank ties substantially invest less than other firms. Our results, however, are suggestive of

the argument that banks in Japan, no longer have influence over client firm's strategic decisions.

## 4.2. Foreign Ownership and the Valuation of Investment and Payout Decisions

The results presented so far are evident that foreign investors have a significant effect on firm's strategic decisions related to investment and payout. In this section, we investigate whether foreign ownership leads to effective and profitable use of investment and payout decisions. We predict that investment and payout decisions do not enhance firm value unless they are effectively utilized. In Table 5, we report results of panel regressions where we use firm value proxied by Tobin's  $Q$  as the dependent variable. All independent variables, including investment and payout measures, are lagged by one year. In all regressions, we use year and industry fixed effects in order to account for the macroeconomic effects as well as the industry effect. We estimate the valuation model using control variables such as firm size, leverage, ROA, and cash to total assets. We deflate capital expenditure, R&D expenditure, dividends, and share repurchase by total assets. In order to capture whether foreign ownership leads to greater firm value through strategic decisions, we interact foreign ownership with our measures of investment and payout. In the value model, we include foreign ownership as an indicator variable by splitting the sample into quartiles, where the highest quartile of foreign ownership (High FOWN), representing the largest stakes of foreign investors, is coded as one.

According to the results presented in Table 5, we find that foreign ownership has a positive significant impact on the valuation of capital expenditures in column (1), R&D expenditure in column (2), and dividends in column (3). However, in column (4) the coefficient on the interaction between high foreign ownership and share repurchase (High Fown  $\times$  Repchse) is insignificant.

This shows that capital expenditures, R&D expenditures, and dividends has an incremental effect on corporate value in the case if firms have a higher fraction of foreign ownership. In line with Jensen and Meckling [21], our results suggest that through increased monitoring, foreign investors mitigate the possibility of suboptimal investments and unnecessary payouts by the management. We find evidence of the notion that foreign investors lead to higher firm value through better and efficient investment and payout decisions. Furthermore, in column (5) through (8), we find no impact of bank dependence on the valuation of investment and payout decisions. The coefficient on the interaction term of bank dependence and capital expenditures (Bank-Dep  $\times$  Capex), bank dependence and R&D expenditures (Bank-Dep  $\times$  R&D), bank dependence and dividends (Bank-Dep  $\times$  Div), bank dependence and share repurchase (Bank-Dep  $\times$  Repchse) are all insignificant.

## 4.3. Foreign Ownership, Usage of Cash, and Firm Performance

Although, the present study is about the value consideration of investment and payout decisions, it is also interesting to investigate the effect of firm's spending on operating performance. However, a straightforward

relation between firm's investment and payout spending on operating performance is difficult to establish. To overcome this, we follow Dittmar and Smith [10] and use the subset of firms that experienced a decline in their cash reserves. We hypothesize that firms that use their cash reserves from year t-1 to year t will have improved operating performance if they have higher equity ownership by foreign investors. For operating performance, we use ROA calculated as ratio of net income to total assets. In order to account for the usage of cash, we use an indicator variable that equals one if firms

experience a decline in their cash reserves from year t-1 to year t. We estimate a regression of operating performance on the cash decline variable from t-1 to t, foreign ownership at time t-1, and an interaction between cash decline variable and foreign ownership. We follow a similar criterion for our bank dependence variable. Following Dittmar and Smith [10], we control for the ratio of one year lagged PP&E to total assets, one year lagged firm size, as well as one year lagged ROA. In all regressions, we use year and industry fixed effects.

**Table 5. Foreign Ownership and the Valuation of Investment and Payout Decisions**

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Capex	-0.0921 (-1.562)				0.0578 (0.590)			
R&D		1.165*** (4.237)				0.965** (2.429)		
Div			12.98*** (11.65)				12.04*** (8.459)	
Repchse				2.538*** (4.929)				3.692*** (3.824)
High Fown	0.133*** (18.04)	0.129*** (16.68)	0.108*** (12.97)	0.0768*** (7.001)				
Bank-Dep					-0.00185 (-0.233)	-0.00692 (-0.821)	-0.000467 (-0.0520)	0.00802 (0.459)
High Fown × Capex	0.452*** (4.856)							
High Fown × R&D		1.439*** (4.202)						
High Fown × Div			9.737*** (6.870)					
High Fown × Repchse				0.708 (1.036)				
Bank-Dep × Capex					-0.0208 (-0.175)			
Bank-Dep × R&D						0.612 (1.279)		
Bank-Dep × Div							-0.00102 (-0.000591)	
Bank-Dep × Repchse								-0.759 (-0.621)
Size	0.0321*** (12.86)	0.0305*** (12.25)	0.0340*** (13.78)	0.0470*** (10.69)	-0.00921** (-2.298)	-0.00897** (-2.243)	-0.00703* (-1.770)	0.0167* (1.784)
Leverage	0.447*** (27.84)	0.453*** (28.31)	0.509*** (31.17)	0.364*** (13.09)	0.580*** (26.30)	0.579*** (26.34)	0.634*** (28.24)	0.575*** (11.19)
ROA	1.794*** (25.28)	1.787*** (26.05)	1.529*** (21.79)	1.520*** (13.19)	1.194*** (13.09)	1.198*** (13.57)	0.963*** (10.59)	1.039*** (5.077)
Cash	0.174*** (4.637)	0.164*** (4.406)	0.159*** (4.332)	0.133* (1.960)	0.0982** (2.094)	0.0948** (2.033)	0.0812* (1.756)	0.160 (1.432)
N	10,342	10,342	10,342	3,247	4,548	4,548	4,548	914
R-squared	0.343	0.347	0.360	0.319	0.319	0.321	0.333	0.362
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

This table shows estimates of regressions of valuation effect of investment and payout decisions. The dependent variable is Tobin's Q calculated as the book value of total assets plus market value of equity minus the book value of equity divided by total assets at time t. Main independent variables include indicator variables for the highest quartile of one year lagged foreign ownership (High Fown), indicator variable that equals one if firm's bank loan ratio is equal or exceeds the sample median of bank loan (Bank-Dep). Control variables, all lagged by one period. To minimize the effect of outliers, we trim our firm-specific factors and dependent variables at 1% tails. t-statistics are presented in brackets. Superscripts \*, \*\*, and \*\*\* indicate significance at 10%, 5%, and 1% confidence levels, respectively.

The results are presented in Table 6. Results in column (1) show that foreign ownership significantly improve the operating performance of the firm, the coefficient is positive and significant at 99% confidence level. For the

cash decline variable, we find that for firms that use cash reserves over the year t-1 to year t, have lower operating performance in the coming year. However, the interaction

coefficient (Fown×Cash-Dec) in column (2) suggests that the negative effect of cash decline is reversed if firms have higher ownership by foreign investors. Our results are in line with Dittmar and Smith [10] and suggest that well governed firms efficiently use their cash reserves which in turn positively impacts the operating performance. Bank dependence on the other hand, either directly or through its impact on cash usage, have no effect on the operating performance.

**Table 6. Foreign Ownership, Usage of Cash, and Firm Performance**

	[1]	[2]	[3]	[4]
Fown	0.0200*** (5.021)	0.0118** (2.403)		
Cash-Dec	-0.0023*** (-4.941)	-0.003*** (-5.568)	-0.004*** (-4.628)	-0.001 (-0.673)
Fown× Cash-Dec		0.0167*** (2.839)		
Bank Loan			0.0002 (0.0463)	0.004 (0.695)
Bank Loan× Cash-Dec				-0.008 (-0.978)
PPE	0.0132*** (7.646)	0.013*** (7.639)	0.0095*** (2.807)	0.009*** (2.793)
Size	-0.0011*** (-4.626)	-0.001*** (-4.589)	-0.001*** (-2.639)	-0.001*** (-2.654)
ROA	0.746*** (111.4)	0.747*** (111.5)	0.698*** (45.76)	0.698*** (45.74)
N	10,265	10,265	2,527	2,527
R-squared	0.634	0.634	0.557	0.557
Year	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes

This table shows estimates of regressions of operating performance on foreign ownership and bank dependence. The dependent variable is ROA calculated as the ratio of net income to total assets at time  $t$ . The main independent variable is one year lagged foreign ownership. Indicator variable that takes the value one if firm's cash reserves decline from year  $t-1$  to  $t$ . Ratio of bank loan to total assets. Control variables, all lagged by one period. To minimize the effect of outliers, we trim our firm-specific factors and dependent variables at 1% tails.  $t$ -statistics are presented in brackets. Superscripts \*, \*\*, and \*\*\* indicate significance at 10%, 5%, and 1% confidence levels, respectively.

## 5. Conclusion

In this paper we examine how increased equity ownership by foreign investors affects firm value. We show that foreign ownership influence firm value through its impact on the strategic managerial decisions that are directly related with the use of corporate resources. We focus on firm's investment and payout policy and predict that these decisions lead to enhanced value when they are effectively used. By using data from Japan over the period 2004-2012, our empirical results show that foreign ownership has a positive significant impact on the valuation of capital expenditures, R&D expenditure, and dividends. Our findings suggest that increased foreign ownership, through their control on self-interested managerial behavior and efficient use of corporate resources, positively affects firm value. In addition, we find that firms with increased foreign ownership use their cash reserves in ways that significantly compliments the

operating performance. We also present evidence in support of the conjecture of a recent decline in the influence of Japanese main banks on firm's strategic decisions. Overall, the findings of our study suggest that increased equity ownership by foreign institutional investors play a significant role in enhancing value and operating performance of firms in countries with relationship-oriented corporate governance structure.

While our empirical evidence depicts that foreign ownership is associated with higher firm value and increased performance through investment and payout decisions, a number of opportunities exist to extend our findings in several ways. First, one could explore the association between foreign ownership and firm value by focusing on both short-term and long-term investment horizon of foreign investors. For instance, foreign investors with shorter investment horizons may be more focused on the short-term financial decisions. Second, one could further investigate whether increased foreign ownership has brought any structural changes in corporate governance, for example the presence of foreign directors. Finally, one could explore other dimensions of investment such as the riskiness of investment activities and examine whether or how foreign ownership has an impact on it. We leave these issue for further research.

## Statement of Competing Interests

The Authors have no competing interests.

## References

- [1] Aggarwal, R., Erel, I., Ferreira, M., & Matos, P. (2011). Does governance travel around the world? Evidence from institutional investors. *Journal of Financial Economics*, 100, 154-181.
- [2] Aoki, M., Patrick, H., & Sheard, P. (1994). *The Japanese main bank system: An introductory overview*. Oxford University Press.
- [3] Baba, N. (2009). Increased presence of foreign investors and dividend policy of Japanese firms. *Pacific-Basin Finance Journal*, 17, 163-174.
- [4] Brown, L. D., & Caylor, M. L. (2006). Corporate governance and firm valuation. *Journal of Accounting and Public Policy*, 25, 409-434.
- [5] Cho, M.-H. (1998). Ownership structure, investment, and the corporate value: An empirical analysis. *Journal of Financial Economics*, 47, 103-121.
- [6] Chung, K. H., Wright, P., & Kedia, B. (2003). Corporate governance and market valuation of capital and R&D investments. *Review of Financial Economics*, 12, 161-172.
- [7] Cremers, M. K., & Nair, V. B. (2005). Governance mechanisms and equity prices. *The Journal of Finance*, 60(6), 2859-2894.
- [8] David, P., Yoshikawa, T., Chari, M. D., & Rasheed, A. A. (2006). Strategic investments in Japanese corporations: Do foreign portfolio owners foster underinvestment or appropriate investment? *Strategic Management Journal*, 27(6), 591-600.
- [9] DeAngelo, H., & DeAngelo, L. (1990). Dividend policy and financial distress: An empirical investigation of troubled NYSE firms. *The Journal of Finance*, 45(5), 1415-1431.
- [10] Dittmar, A., & Smith, J. M. (2007). Corporate governance and the value of cash holdings. *Journal of Financial Economics*, 83, 599-634.
- [11] Dittmar, A., Smith, J. M., & Servaes, H. (2003). International corporate governance and corporate cash holdings. *The Journal of Financial and Quantitative Analysis*, 38(1), 111-133.
- [12] Ferreira, M. A., & Matos, P. (2008). The colors of investors' money: The role of institutional investors around the world. *Journal of Financial Economics*, 88, 499-533.

- [13] Gillan, S. L., & Starks, L. T. (2003). Corporate governance, corporate ownership, and the role of institutional investors: A global perspective. *Journal of Applied Finance*, 13, 4-22.
- [14] Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate governance and equity prices. *Quarterly Journal of Economics*, 118, 107-155.
- [15] Goyer, M., & Jung, D. K. (2011). Diversity of Institutional Investors and Foreign Blockholdings in France: The Evolution of an Institutionally Hybrid Economy. *Corporate Governance: An International Review*, 19(6), 562-584.
- [16] Harford, J., Kecskés, A., & Mansi, S. (2012). Investor horizons and corporate cash holdings. *Working Paper*.
- [17] Harford, J., Mansi, S. M., & Maxwell, W. F. (2008). Corporate governance and firm cash holdings in the US. *Journal of Financial Economics*, 87, 535-555.
- [18] Hiraki, T., Inoue, H., Ito, A., Kuroki, F., & Masuda, H. (2003). Corporate governance and firm value in Japan: Evidence from 1985 to 1998. *Pacific-Basin Finance Journal*, 11, 239-265.
- [19] Hoshi, T., Kashyap, A., & Scharfstein, D. (1990). The role of banks in reducing the costs of financial distress in Japan. *Journal of Financial Economics*, 27, 67-88.
- [20] Hubbard, G. R. (1998). Capital-market imperfections and investment. *Journal of Economic Literature*, 36, 193-225.
- [21] Jensen, M. C., & Meckling, W. H. (1976). Theory of firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- [22] Jeon, J. Q., Lee, C., & Moffett, C. M. (2011). Effects of foreign ownership on payout policy: Evidence from the Korean market. *Journal of Financial Markets*, 14(2), 344-375.
- [23] John, K., & Knyazeva, A. (2006). Payout policy, agency conflicts, and corporate governance. *Working Paper*.
- [24] Kang, J.-K., & Shivdasani, A. (1995). Firm performance, corporate governance, and top executive turnover in Japan. *Journal of Financial Economics*, 38, 29-58.
- [25] Kang, J.-K., & Shivdasani, A. (1999). Alternative mechanisms for corporate governance in Japan: An analysis of independent and bank-affiliated firms. *Pacific-Basin Finance Journal*, 7, 1-22.
- [26] Kang, J.-K., & Stulz, R. M. (2000). Do banking shocks affect borrowing firm performance? An analysis of the Japanese experience. *The Journal of Business*, 73(1), 1-23.
- [27] Kaplan, S. N., & Minton, B. A. (1994). Appointments of outsiders to Japanese boards Determinants and implications for managers. *Journal of Financial Economics*, 36, 225-258.
- [28] Min, B. S., & Bowman, R. G. (2015). Corporate governance, regulation and foreign equity ownership: Lessons from Korea. *Economic Modelling*, 47, 145-155.
- [29] Morck, R., & Nakamura, M. (1999). Banks and corporate control in Japan. *The Journal of Finance*, 54(1), 319-339.
- [30] Nagaoka, S. (2006). R&D and market value of Japanese firms in the 1990s. *J. Japanese Int. Economics*, 20, 155-176.
- [31] Nguyen, P. (2012). The impact of foreign investors on the risk-taking of Japanese firms. *J. Japanese Int. Economics*, 26, 233-248.
- [32] Pinkowitz, L., & Williamson, R. (2001). Bank power and cash holdings: Evidence from Japan. *The Review of Financial Studies*, 14(4), 1059-1082.
- [33] Pinkowitz, L., Stulz, R. M., & Williamson, R. (2012). Multinationals and the high cash holdings puzzle. *Working Paper Series*, 1-57.
- [34] Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The Journal of Finance*, 50(5), 1421-1460.
- [35] Richardson, S. (2006). Over-investment of free cash flow. *Review of Accounting Studies*, 11, 159-189.
- [36] Rozeff, M. S. (1982). Growth, beta, and agency costs as determinants of dividend payout ratios. *Journal of Financial Research*, 5(3), 249-259.
- [37] Shleifer, A., & Vishny, R. W. (1986). Large shareholders and corporate control. *Journal of Political Economy*, 94(3), 461-488.
- [38] Wei, Z., Xie, F., & Zhang, S. (2005). Ownership structure and firm value in China's privatized firms: 1991-2001. *The Journal of Financial and Quantitative Analysis*, 40(1), 87-108.
- [39] Weinstein, D. E., & Yafeh, Y. (1998). On the costs of a bank-centered financial system: Evidence from the changing main bank relations in Japan. *The Journal of Finance*, 53(2), 635-672.
- [40] Wu, X., & Xu, L. L. (2005). The value information of financing decisions and corporate governance during and after the Japanese deregulation. *Journal of Business*, 78(1), 243-280.