# Foreign investment horizons, corporate governance and payout policy

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## Abstract
This paper examines whether long-term foreign investors may force firms to use a costly dividend to mitigate inefficient managerial behavior. The authors also hypothesize that the relation between foreign investment horizons and payout policy depends upon the extent of the corporate governance. The authors find that firms held by long-term foreign investors make dividend more often in the subsequent years. The authors also find that foreign investors with long-term investments do not cause firms to pay dividends when firms have strong corporate governance. It suggests that long-term foreign investors serve as a substitute for strong corporate governance with respect to controlling agency conflicts.

**Keywords** Payout policy, Corporate governance, Foreign investment horizons, Emerging markets
**Paper type** Research paper

## 1. Introduction

Foreign investors are a major investor group in emerging markets. In December 2013, foreign investors hold more than 32.97% of the equity of Korean firms, compared to around 25.95% in January 2001. There is a trend toward more foreign holdings in both small and large firms. As the investments made by foreign investors grow in emerging markets, both academics and practitioners have recently been paying much attention to the influence of foreign investments on corporate decision making, especially in regards to payout policy. This increasing dominance in emerging markets contrasts with our limited understanding of that role. In addition, previous research has mostly focused on the level of foreign investments, but has not addressed investment horizon *per se*. In this paper, we examine how foreign investment horizons influence payout policy.

The influence of foreign investors on corporate policy in Korea has been noted (Jeon and Ryoo, 2013). In Korea, family business groups, the so-called *Chaebol*, are dominant. In these firms, controlling shareholders can implement dividend policy for their own interests at the expense of minority shareholders (La Porta *et al.,* 2000). In addition, as many domestic institutions have connections with *Chaebol*, their monitoring activities are somewhat limited (Jeon and Ryoo, 2013). On the other hand, foreign investors are independent investors who

maintain global standards and corporate governance practices. They have sophisticated monitoring techniques and have strong incentive to monitor management (Jeon and Ryoo, 2013). It implies that foreign investors may demand higher dividends rather than lower dividends, in order to prevent being expropriated and to ensure greater focus on shareholder value. Here, we examine the relation between foreign investors and their potential monitoring roles in the stock market.

It is generally assumed that with improved monitoring, firms are more likely to pay out their free cash flow and that larger cash payouts help to reduce agency costs and information asymmetry (Easterbrook, 1984; Jensen, 1986; Bhattacharya, 1979; Miller and Rock, 1985). Assuming that institutions have better information gathering abilities and are better monitors (Allen et al., 2000), these theories imply that larger institutional holdings will lead to higher payouts to mitigate manager–shareholder agency conflicts. Over the past three decades, how institutional investors' holdings affect corporate financial policies has been examined both theoretically and empirically. In particular, recent studies have focused on institutional heterogeneity, such as different institutional investment horizons, in the relation between shareholder ownership and corporate finance decision (Chen et al., 2007; Gaspar et al., 2005, 2012; Attig et al., 2012). They argue that short-term institutional investors are weak monitors, and independent institutions with long-term investments specialize in monitoring and influencing efforts rather than in trading. Picking up on this point, foreign investors with long-term investments may behave differently from foreign investors with short-term investments with respect to payout policy. Larger holdings by foreign investors with long-term investments could cause firms to increase payout in order to reduce agency costs, while foreign investors with a shorter horizon have fewer incentives to spend resources in monitoring. However, counter-arguments hold that long-term relationship can lead to institutional investor passivism with respect to monitoring and corporate payout decision (McConnell and Servaes, 1990; Pound, 1988; Brickley et al., 1988). Existing literature argues that long-term investors may be susceptible to following management's decisions, which could in turn exacerbate agency conflicts. Overall, the discussion above suggests that foreign investors with long-term investment horizons may have an influence whether positive or negative on payout policy. Meanwhile, according to John et al. (2011), firm location influences shareholder ability to monitor and oversee management and, hence, remote location explains higher dividends. We add to these arguments by conjecturing that, on average, because of the geographic factor, the positive influences on payout policy outweigh the negative influences. Hence, long-term foreign investors may force firms to use a costly dividend to mitigate inefficient managerial behavior and agency conflicts. This paper, therefore, examines the relation between foreign investment horizons and payout policy rather than examining foreign ownership itself.

Foreign investors with the large holdings and long-term investment have strong incentives to monitor management and may demand higher dividends to reduce the agency conflict (Jeon and Ryoo, 2013). Efficient corporate governance systems may also play an important role of paying dividends to reduce the agency problems of the separation of ownership and control (La Porta et al., 2000; Gugler, 2003; Jiraporn and Ning, 2006). In a company with a more efficient system of governance, corporate governance is a means by which various stakeholders have the ability to exert control over a corporation (John and Senbet, 1998). Following these arguments, the relation between foreign investment horizons and payout policy depends upon the extent of the corporate governance within the companies. If corporate governance is better able to reduce agency costs through their monitoring capabilities, then corporate governance can substitute for foreign holdings in monitoring managers. Therefore, foreign investors may not have a stronger preference for cash payouts when the firm has strong corporate governance. The presence of strong corporate governance would make dividends redundant as an agency control device. A firm

with long-term foreign investment does not want to pay out more to reduce its agency problems if it has strong corporate governance, since better corporate governance can suppress its agency conflicts. This argument implies that dividends and shareholder control are substitute rather than complementary mechanisms in mitigating agency concerns. Thus, the combination of the potential monitoring role of long-term foreigners and the monitoring role of corporate governance has led some researchers to suggest an interaction between long-term foreign investment and corporate governance. This paper examines the effect of foreign investment horizons on payout policy in the Korean stock market in consideration of extant of corporate governance. To our best knowledge, this study is the first to examine foreign investors' monitoring role with different length of time invested in a particular firm while simultaneously considering the corporate governance and the size of its ownership stake.

Our first question of interest is whether foreign investment horizons affect payout policy. We examine the relation between foreign investment horizons and payout policy rather than examining foreign ownership itself. Descriptive statistics and univariate analysis reveal heterogeneity in the investment horizon of foreign investors. We provide empirical support for the hypothesized relation between foreign investors with long-term investments and payout policy. We find that firms held by long-term foreign investors make dividend or repurchases more often in the subsequent years. It suggests that foreign investors with long-term investments help firms to improve the efficiency of their resource allocation through paying dividends. This is consistent with the result from existing literature on shareholder investment horizon. This result is also in line with Jeon and Ryoo (2013), who argue that foreign investors provide effective monitoring and affect corporate policy.

Next, we consider the role of corporate governance in the relation between foreign investment horizons and payout policy. Our prediction is that, depending on the effectiveness of corporate governance, the relation between foreign investment horizons and a payout policy will be different. For a firm with strong corporate governance, foreign investors' investment horizons do not affect payout policy since the firm's strong corporate governance can control potential agency problems. However, if firms have weak corporate governance, foreign investors with long-term investment do cause firms to increase total payout to reduce agency costs. We find that when firms have strong corporate governance, foreign investors with long-term investments do not cause firms to pay dividends. Indeed, we find that as long as firms have weak corporate governance, long-term foreign investors do cause firms to pay dividends.

Overall, we find that large holdings by foreign investors with long-term investments are positively correlated with total payout in the subsequent year. It suggests that foreign investors with long-term investments help firms to improve the efficiency of their resource allocation through paying dividends. However, we find that foreign investors with long-term investments do not cause firms to pay dividends when firms have strong corporate governance. It suggests that foreign investors with long-term investments style serve as a substitute for strong corporate governance with respect to controlling agency conflicts. Our findings are robust across many alternative specifications.

This paper contributes to extant literature in two ways. First, we extend literature on shareholder investment horizons by examining the effect of foreign investment horizons on payout policy. Much empirical work on shareholder investment horizon has focused on domestic institutions. Due to information advantage, information gathering ability, investment strategy and different monitoring incentives, domestic institutions are very different from foreign investors in emerging markets. In particular, in Korea, foreign investors complement domestic institutions through active monitoring (Jeon and Ryoo, 2013). By examining foreign investment horizons explicitly in corporate payout decisions, this paper overcomes the limits and ambiguity in existing empirical papers that have focused on

the simple relation between the level of foreign ownership and payout policy. We provide new evidence that the empirical findings that firms with higher long-term institutional holdings are more likely to pay dividends in the US market can be applied in Korea where foreign investors play a role in corporate finance decision. Second, we supplement existing literature by considering corporate governance in the relation between foreign investment horizons and payout policy. Previous literature has mostly focused on the direct relation between institutional investment horizons and their monitoring roles in the stock market (Chen *et al.*, 2007; Gaspar *et al.*, 2005; Gaspar *et al.*, 2012). They do not consider corporate governance, which is one of the efficient ways to monitor and reduce agency costs. In this paper, we investigate the role of corporate governance in the relation between foreign investment horizons and payout policy. Thus, our contribution is to show that foreign investment horizons have a different effect on payout policy in consideration of extent of corporate governance.

The remainder of this article is organized as follows. Section 2 includes the two hypotheses of this study. Section 3 explains the data and main variables. The empirical results are shown in section 4, and finally, section 5 concludes.

## 2. Hypothesis development

The purpose of this paper is to examine whether the investment horizons of a firm's foreign investors are associated with payout policy. The general assumption is that firms, due to enhanced monitoring, are more likely to pay out their free cash flow and that larger cash payouts help to reduce agency costs and asymmetric information (Easterbrook, 1984; Jensen, 1986; Bhattacharya, 1979; Miller and Rock, 1985). Assuming that institutions are better monitors (Allen *et al.*, 2000), these theories imply that the larger the institutional investment, the higher the payouts and lower agency costs. Meanwhile, recent studies focus on institutional heterogeneity, such as different institutional investment horizons, in the relation between shareholder ownership and corporate finance decision (Chen *et al.*, 2007; Gaspar *et al.*, 2005; Gaspar *et al.*, 2012). Gaspar *et al.* (2005) argue that short-term institutional investors are weak monitors. Chen *et al.* (2007) further suggest that independent institutions with long-term investments specialize in monitoring and influencing efforts rather than trading. However, much empirical work on shareholder investment horizon has focused on domestic institutions. Due to information advantage, information gathering ability, investment strategy, different legal restrictions and different monitoring incentives, domestic institutions are very different from foreign investors. In emerging markets, and in Korea in particular, foreign investors may have significantly more influence on corporate policy than domestic institutions (Jeon and Ryoo, 2013). In Korea, *Chaebol* are dominant and most domestic institutions are related to *Chaebol*, and thus monitoring activities of domestic institutions are limited (Jeon and Ryoo, 2013). On the other hand, foreign investors are independent, sophisticated, from developed markets, have superior monitoring skills and have strong incentive to monitor management (Jeon and Ryoo, 2013). It implies that foreign investors may demand higher dividends rather than lower dividends, in order to prevent being expropriated and ensure greater focus on shareholder value. While foreign investors have many things in common, they are far from homogeneous. An important way in which they differ is the investment horizon. Foreign investors may have different investment horizons because of differences in investment objectives and, in particular, different monitoring incentives. Following the literature on shareholder investment horizons, foreign investors with long-term investments may behave differently from foreign investors with short-term investments with respect to payout policy. Larger holdings by foreign investors with long-term investments do cause firms to increase payout in order to reduce agency costs,

while foreign investors with a shorter horizon have fewer incentives to spend resources in monitoring.

An alternative view, however, maintains that institutional investors with a long-term investment tend to vote in favor of entrenched management (Pound, 1988). According to Brickley *et al.* (1988), long-term investors may be under pressure to go along with management's decision and thus not to have incentives to reduce agency costs, which in turn would result in low payout.

Overall, the discussion above suggests that both perspectives are helpful in explaining the monitoring role of foreign investment horizon. That is, foreign investors with long-term investment horizons may provide either a positive or a negative relation to payout policy. Meanwhile, according to John *et al.* (2011), remotely located firms pre-commit to higher dividends to mitigate the agency conflicts. We add to these arguments by conjecturing that, as a result of geographic factor, the positive influences on payout policy outweigh the negative influences on average. Long-term foreign investors may force firms to use a costly dividend to mitigate inefficient managerial behavior and agency conflicts.

*H1.* Foreign investors with long-term investments cause firms to increase payout, while foreign investors with short-term investments do not cause firms to increase their payout.

Paying more dividends is argued to decrease the free cash flow available that can be wasted on inefficient projects. Thus, dividends can generally suppress a firm's agency costs of free cash flow and minimize suboptimal managerial behavior (Easterbrook, 1984; Jensen, 1986; Zwiebel, 1996). It is also commonly believed that an effective corporate governance system is another method of reducing agency conflicts (Jiraporn and Ning, 2006). Since strong corporate governance controls the potential for suboptimal managerial behavior, the agency costs and the cash distributions required to offset them are lower (John and Knyazeva, 2006). According to Jeon and Ryoo (2013), foreign investors with the large stakes and long-term investments may provide management with incentives to distribute cash flow to shareholders when agency problems are at their greatest. Following these arguments, the effect of foreign investment horizons on payout policy depends upon the extent of the corporate governance within the each company. If corporate governance is effective in reducing agency costs through its monitoring capabilities, then foreign investors may not have a strong incentive for cash payouts when the firm has strong corporate governance. If foreign investors are indeed monitors, as is widely assumed, and corporate governance actually can control agency problem, then paying dividends may not help since dividends are costly. The presence of strong corporate governance would thus make dividends redundant as an agency control device. This argument implies that dividends and shareholder control are substitute rather than complementary mechanisms in mitigating agency concerns. Thus, the combination of the potential monitoring role of long-term foreign investment and the monitoring role of corporate governance has led some researchers to suggest an interaction between the two. For a firm with strong corporate governance, foreign investors' investment horizons may not affect payout policy, since the firm's strong corporate governance can resolve potential agency problems. However, for a firm with weak corporate governance, foreign investors with long-term investments do cause firms to increase total payout to reduce agency conflict, since weak corporate governance could exacerbate the agency costs.

*H2.* Foreign investors with long-term investments do cause firms to increase payout only when these firms have weak corporate governance. On the other hand, if a firm has strong corporate governance, foreign investors with long-term investments do not cause firms to increase payout.

### 3. Sample, variable descriptions and summary statistics

*3.1 Data*

Our sample firms are all publicly traded on the Korea Exchange (KRX) from 2006 to 2009. KRX compiles daily information of foreign investors' ownership and trading volume for each stock. This information provides more robust samples on investment horizon of foreign investors than US samples on institutional churn rate from CDA/Spectrum [1]. For example, we can observe daily trading behavior of foreign investors and calculate their daily turnover ratio as a proxy of investment horizons. We obtain financial data from the TS2000, a dataset compiled by the Korea Listed Companies Association (KLCA), and stock return data from Fn-Guide, a Korean financial data provider. The internal corporate governance index is provided by the Korean Corporate Governance Services (KCGS) [2], a non-profit organization. The KCGS compiles the governance information for all Korean companies listed on KRX annually. They provide firm-level internal corporate governance information with a specific score attached. As of 2006, they had a total of 130 assessment items with a total score of 300 points, which we convert to a 100 point scale. Firms in the financial industry and the utility industry are excluded. We also exclude firms that do not have data on the KCGS. The resulting dataset consists of 1,372 firm-year observations from 2006 to 2009.

*3.2 Variable descriptions*

*3.2.1 Foreign investment horizons.* Previous literature (Gaspar *et al.*, 2005; Yan and Zhang, 2009) uses churn rate (the portfolio turnover ratio) as a proxy variable of the investment horizon of institutional investors. The churn ratio means how frequently an institutional investor rotates his positions on all stocks of his portfolio at any given time. They characterize institutional investors in terms of their portfolio turnover ratio. Gaspar *et al.* (2012) argue that churn rate is not based on the firm level but on the portfolio level. Meanwhile, Elyasiani and Jia (2010) criticize churn rate as aggregating the turnover of institutional investors and implicitly assuming that an institutional investor follows the same trading style in managing each of the stocks in his/her portfolio. This is not necessarily the case as many factors may determine the holding horizon of a particular stock (e.g. expertise, diversification, firm-specific events, etc.).

This paper uses the trading turnover ratio of foreign investors on each firm, not the portfolio turnover ratio. In identifying the investment horizons based on the firm level, we follow a methodology to compute the trading turnover ratio which measures the frequency with which foreign investors trade their holding stock. For example, if the foreign investors have a turnover of 0.5, it means that 50% of their holding stock amount is turned over in a year. We begin by computing the daily trading turnover ratio of foreign investors as follows:

$$Trading\_Turnover_{k,t} = \frac{\left( \sum_{x=1}^{z} N_{k,t,x}^S \cdot P_{k,t,x}^S + \sum_{y=1}^{z'} N_{k,t,y}^B \cdot P_{k,t,y}^B \right) \bigg/ 2}{(N_{k,t} \cdot P_{k,t} + N_{k,t-1} \cdot P_{k,t-1})/2} \tag{1}$$

where $\sum N_{k,t,x}^S \cdot P_{k,t,x}^S$ represents the value of the shares sold by foreign investors for stock $k$ on day $t$ and $\sum N_{k,t,y}^B \cdot P_{k,t,y}^B$ represents the value of the shares bought by foreign investors for stock $k$ on day $t$. $Z(Z')$ denotes the set of counts traded by foreign investors. $P_{k,t}$ and $N_{k,t}$ is the price and the number of shares of stock $k$ held by foreign investors at day $t$, so the denominator indicates the stock's average daily dollar volume on day $t$. The trading turnover rate of foreign investors for stock $k$ on day $t$ is a daily measure of how frequently they trade it in comparison with his average dollar volume.

Second, we summarize this daily trading turnover ratio for each firm as:

$$ForeignInvestor\_Turnover_k = \sum_{t=1}^{N} Trading\_Turnover_{k,t} \qquad (2)$$

where $N$ denotes the opening days of the KRX. Two specific foreign investor turnover ratio is based on turnover at the level of the stock of firm $k$, not on the portfolio behavior of foreign investors.

There are two benefits of using the trading turnover ratio of foreign investors compared to institutional churn ratio. Trading turnover ratio is directly buying or selling behavior of foreign investors on each firm $k$, not rebalancing the style for portfolio management. Our trading turnover ratio uses daily market data and includes all listed stocks, which churn ratio is based on the quarterly report and limits the holding stocks (i.e. positions of more than 10,000 shares or US$200,000 in value) of institutions with more than US$100 million dollar under discretionary management.

We consider two measures to define long-term foreign investor and short-term foreign investor. The first measure counts the sample median of turnover ratio. We define foreign investor as a long-term investor if their turnover ratio does not exceed the sample median. Otherwise it is defined as a short-term investor. On the other hand, Gompers and Metrick (2001) argue that institutional ownership is affected by firm characteristics such as size, share price, turnover and S&P membership. According to these arguments, we consider a second measure. We compare foreign investor turnover ratio with stock turnover ratio on firm $k$ and define the investment horizon of foreign investors (HORIZON) by stock turnover ratio minus the foreign investor turnover ratio. Stock turnover ratio is calculated by the same method in Equations (1) and (2). Given the comparison results, foreign investors are classified as long-term investors if their turnover ratio is lower than the stock turnover ratio, and as short-term investors if their turnover is higher than the stock turnover ratio. The rationale behind this measure is that a foreign investor can be considered long-term if it does not trade frequently over stock turnover, a weighted average trading turnover of all investors on firm $k$. In this paper, we show the results using the second measure [3].

*3.2.2 Corporate governance index.* We use firm-specific corporate governance scores provided by the KCGS as in Black and Kim (2012) and Byun *et al.* (2011). This corporate governance score captures all major aspects of internal corporate governance, such as shareholder rights, board structure, responsibility of board, conflict of interest, composition of audit committee, function of internal auditors and disclosure and transparency [4].

Thus, the internal corporate governance score includes five sub-indices of internal corporate governance practices; shareholder rights protection, board of directors, internal auditors, disclosure and payout policy. Shareholder rights protection index covers shareholder rights provisions, ownership structure and related-party transactions. Board of director's index consists of the composition and the functions of the boards, for instance, a board of directors comprising a majority of outside directors. Internal auditors' index includes the structures, the functions and the responsibilities of the audit committee and internal auditors. Disclosure index represents management transparency and the disclosure of firm information. Payout policy index focuses on dividend yields, payout ratio and stock repurchases. We use the internal corporate governance score (CGI) excluding dividend policy score as the proxy of the internal corporate governance (Byun *et al.*, 2012). The firm-level index of KCGI is summarized in Appendix.

*3.2.3 Payout policy and control variables.* We employ three alternative measures of payout ratios: the ratio of the payout amount [5] to asset, the ratio of the payout amount to the book value of equity, the ratio of the payout amount to the market value of equity.

We control firm specific variables such as leverage (LEV), firm size (SIZE), profitability (ROE) and growth rate (GROWTH). These variables are used in various studies as in Allen and Michaely (2002) and Pattenden and Twite (2008), etc. To reflect a firm's capital structure, we use a debt ratio defined as debt/book value of assets. Earnings to book value of equity (ROE) represents a firm's profitability, and logarithm of total sales of a firm's size. The measure used in this study as a proxy for growth opportunities is Tobin's q, defined as market value of assets divided by book value of assets. To control ownership structure, we include the largest shareholder ownership (LARGE) as sum of the stock ownerships by the largest shareholder and its related parties.

Following Jagannathan *et al.* (2000), we include ROA volatility (STDROA), cash-flow (CASHFLOW) and previous stock return (STOCKRETURN) in order to control cash flow and its components. ROA volatility is measured by the standard deviation of the ratio of operating income to the total assets over the 5 years and Cash-flow is measured by the operating income minus taxes, interest expenses, and preferred and common dividends scaled by book assets. These variables control the impact of the permanence of cash-flows on the payout decision (e.g. Guay and Harford, 2000). The last 12 months' stock return is computed to control the impact of recent run-ups. We summarize the definitions of all variables in Table 1.

### 3.3 Summary statistics
Table 2 shows the descriptive statistics for the sample of firms. We employ three different measures of payout. DIV/ASSETS ratio averages 0.0120 (0.0069 median) and DIV/EQUITY ratio averages 0.0205 (0.0124 median) whereas the DIV/ME ratio averages 0.0214 (0.0150 median). Since these measures are ratios, they may have considerably large values when denominators (assets, book value of equity and market value of equity) are small. For example, it is possible for a firm to pay out substantial cash when its assets are low. We conjecture that this is the reason that the measures of payout have larger means than medians.

Concerning FOR, foreign investors hold on average 11.96% (5.54% median) of the firm's shares. The average and the median of CGI is 0.3900 and 0.3667, respectively. The debt to book value of assets ratio averages 43.92% (45.17% median). GROWTH, which proxies for growth opportunities, averages 1.5093 (1.3587 median) [6] The average firm in the sample has 1.4 billion dollars in book value of assets and 1.3 billion dollars in sales [7]. A proxy for investment horizons (HORIZON), stock turnover ratio minus foreign investors' turnover ratio, has an average −4.3683 and a median of −0.1295. We conjecture that some foreign investors may try to beat the market through trading instead of pressuring firms to act in the shareholders' interest.

Table 3 presents the summary statistics of the main variables by groups of foreign investors' investment horizons and corporate governance and tests the differences of the main variables between the two groups. To test the differences, we implement the *T*-test and Wilcoxon test.

## 4. Empirical results
### 4.1 The effect of foreign investment horizons on total payouts
We analyze the relation between foreign investment horizons and payout while controlling for firm characteristics in a multiple regression framework similar to that used in a dividend policy paper by Gaspar *et al.* (2012). We employ Tobit regressions [8], and control heteroskedasticity using Huber and White estimators. The dependent variable (DIV) measures payout ratios: the ration of the payout amount to the book value of asset

| Variables | Definition |
|---|---|
| DIV/ASSETS | (Cash dividends + stock repurchases)/assets |
| DIV/EQUITY | (Cash dividends + stock repurchases)/book value of equity |
| DIV/ME | (Cash dividends + stock repurchases)/market value of equity |
| FOR | Ratio of a firm's shares held by foreign investors relative to total shares outstanding |
| SIZE | Log(total sales) |
| GROWTH | Market value of assets/book value of assets. Market value of assets is estimated by (book value of debt + book value of preferred stock + market value of common stock) |
| LEV | Book value of debt/book value of assets |
| CASHFLOW | (operating income – taxes – interest expenses – preferred and common dividends)/book assets |
| ROE | Earnings/book value of equity |
| STDROA | Standard deviation of the ratio of operating income to the total assets over the past 5 years |
| STOCKRETURN | Compounded monthly return for the previous year |
| LARGE | Sum of the stock ownerships by the largest shareholder and its related parties |
| CGI | Korean Corporate Governance Index: Its score includes five sub-indices of Internal corporate governance practices, Shareholder rights protection, Board of directors, Internal audits, Disclosure, and Payout policy. We use the internal corporate governance score (CGI) excluding Payout policy score |
| HORIZON | Stock turnover ratio – foreign investors' turnover ratio |
| CGD | Dummy variable with the value of 1 if CGI is above sample mean, or 0 otherwise |
| LID | Dummy variable with the value of 1 if HORIZON is above 0, or 0 otherwise |

**Note(s):** This table reports the definitions of variables we use in this study

**Table 1.**
Definitions of variables

| | Mean | Median | Std | Max | Min |
|---|---|---|---|---|---|
| DIV/ASSETS | 0.0120 | 0.0069 | 0.0185 | 0.2527 | 0.0000 |
| DIV/EQUITY | 0.0205 | 0.0124 | 0.0310 | 0.3428 | 0.0000 |
| DIV/ME | 0.0214 | 0.0150 | 0.0255 | 0.1882 | 0.0000 |
| FOR | 0.1196 | 0.0554 | 0.1476 | 0.8755 | 0.0003 |
| GROWTH | 1.5093 | 1.3587 | 0.5684 | 7.2179 | 0.3247 |
| LEV | 0.4392 | 0.4517 | 0.1925 | 1.1810 | 0.0170 |
| CASHFLOW | 0.0436 | 0.0440 | 0.0863 | 0.4422 | −0.3313 |
| ROE | 0.0419 | 0.0683 | 0.3300 | 8.1414 | −2.9729 |
| STDROA | 0.0363 | 0.0279 | 0.0295 | 0.2569 | 0.0010 |
| STOCKRETURN | 0.0209 | −0.0823 | 0.6753 | 5.9552 | −0.9689 |
| LARGE | 0.4080 | 0.4038 | 0.1586 | 0.9155 | 0.0227 |
| CGI | 0.3900 | 0.3667 | 0.0921 | 0.8667 | 0.2233 |
| HORIZON | −4.3683 | −0.1295 | 14.6288 | 43.1704 | −119.9434 |
| Total Assets (USD mil.) | 1406.13 | 223.44 | 4682.25 | 62570.51 | 14.32 |
| Total Sales (USD mil.) | 1269.25 | 209.94 | 4015.64 | 62944.77 | 4.56 |

**Note(s):** The sample includes 1,372 Korean listed firms from 2006 to 2009. DIV/ASSETS is (cash dividends + stock repurchases) over assets. DIV/EQUITY is (cash dividends + stock repurchases) over book value of equity. DIV/ME is (cash dividends + stock repurchases) over market value of equity. FOR is foreign investors' ownerships. GROWTH is market value of assets/book value of assets. LEV is book value of debt to book value of assets. CASHFLOW is operating income minus taxes, interest expenses and preferred and common dividends scaled by book assets. ROE is earnings to book value of equity. STDROA is standard deviation of the ratio of operating income to the total assets over the past 5 years. STOCKRETURN is compounded monthly return for the previous year. LARGE is sum of the stock ownerships by the largest shareholder and its related parties. CGI is Korean Governance Index. HORIZON is stock turnover ratio minus foreign investors' turnover ratio

**Table 2.**
Descriptive statistics

| | Total | LID = 1 | LID = 0 | T-test P-value | CGD = 1 | CGD = 0 | T-test P-value |
|---|---|---|---|---|---|---|---|
| DIV/ASSETS | 0.0120 [0.0069] | 0.0142 [0.0083] | 0.0096 [0.0052] | 0.0001 (0.0001) | 0.0144 [0.0084] | 0.0106 [0.0062] | 0.0001 (0.0001) |
| DIV/EQUITY | 0.0205 [0.0124] | 0.0241 [0.0150] | 0.0165 [0.0101] | 0.0001 (0.0001) | 0.0264 [0.0169] | 0.0171 [0.0104] | 0.0001 (0.0001) |
| DIV/ME | 0.0214 [0.0150] | 0.0234 [0.0176] | 0.0191 [0.0121] | 0.0009 (0.0001) | 0.0209 [0.0151] | 0.0217 [0.0150] | 0.2830 (0.0528) |
| FOR | 0.1196 [0.0554] | 0.1852 [0.1352] | 0.0472 [0.0117] | 0.0001 (0.0001) | 0.1842 [0.1477] | 0.0824 [0.0268] | 0.0001 (0.0001) |
| SIZE | 12.6503 [12.4021] | 12.9411 [12.6775] | 12.3293 [12.0004] | 0.0001 (0.0001) | 13.7816 [13.7289] | 11.9976 [11.9755] | 0.0001 (0.0001) |
| GROWTH | 1.5093 [1.3587] | 1.5670 [1.3985] | 1.4456 [1.3195] | 0.0001 (0.0001) | 1.6660 [1.4782] | 1.4188 [1.2923] | 0.0001 (0.0001) |
| LEV | 0.4392 [0.4517] | 0.4295 [0.4413] | 0.4499 [0.4635] | 0.0248 (0.0438) | 0.4569 [0.4737] | 0.4290 [0.4388] | 0.0048 (0.0035) |
| CASHFLOW | 0.0436 [0.0440] | 0.0522 [0.0477] | 0.0341 [0.0388] | 0.0001 (0.0003) | 0.0612 [0.0576] | 0.0334 [0.0354] | 0.0001 (0.0001) |
| ROE | 0.0419 [0.0683] | 0.0720 [0.0828] | 0.0087 [0.0549] | 0.0002 (0.0001) | 0.0764 [0.0924] | 0.0220 [0.0556] | 0.0016 (0.0001) |
| STDROA | 0.0363 [0.0279] | 0.0342 [0.0260] | 0.0386 [0.0305] | 0.0030 (0.0025) | 0.0314 [0.0237] | 0.0391 [0.0301] | 0.0001 (0.0001) |
| STOCKRETURN | 0.0209 [-0.0823] | 0.0170 [-0.0530] | 0.0253 [-0.0991] | 0.4103 (0.4145) | 0.0317 [-0.0213] | 0.0147 [-0.1047] | 0.3275 (0.0625) |
| LARGE | 0.4080 [0.4038] | 0.3937 [0.3826] | 0.4239 [0.4260] | 0.0002 (0.0001) | 0.3763 [0.3609] | 0.4263 [0.4275] | 0.0001 (0.0001) |
| CGI | 0.3900 [0.3667] | 0.4041 [0.3800] | 0.3745 [0.3533] | 0.0001 (0.0001) | 0.4848 [0.4600] | 0.3353 [0.3367] | 0.0001 (0.0001) |
| HORIZON | -4.3683 [0.1295] | 0.7703 [0.2665] | -10.0427 [-1.6782] | 0.0001 (0.0001) | -0.4981 [0.0013] | -6.6014 [-0.2513] | 0.0001 (0.0001) |

**Note(s):** The sample includes 1,372 Korean listed firms from 2006 to 2009. DIV/ASSETS is (cash dividends + stock repurchases) over assets. DIV/EQUITY is (cash dividends + stock repurchases) over book value of equity. DIV/ME is (cash dividends + stock repurchases) over market value of equity. FOR is foreign investors' ownerships. SIZE is natural log of sales. GROWTH is Market value of assets/book value of assets. LEV is book value of debt to book value of assets. CASHFLOW is operating income minus taxes, interest expenses and preferred and common dividends scaled by book assets. ROE is earnings to book value of equity. STDROA is standard deviation of the ratio of operating income to the total assets over the past 5 years. STOCKRETURN is compounded monthly return for the previous year. LARGE is sum of the stock ownerships by the largest shareholder and its related parties. CGI is Korean Governance Index. HORIZON is stock turnover ratio minus foreign investors' turnover ratio. LID is dummy variable with the value of 1 (long-term investor) if foreign investors' turnover ratio is below stock turnover ratio, or 0 (short-term investor) otherwise. CGD is dummy variable with the value of 1 if corporate governance index is above sample mean, or 0 otherwise. Numbers in [ ] denote medians. Difference tests show p-value from T-tests, where numbers in ( ) denote p-value from T-tests, and numbers in [ ] denote medians. Difference tests show p-value from T-tests, where numbers in ( ) denote p-value from Wilcoxon's rank sum tests

**Table 3.**
Bivariate test: grouped by foreign investment horizons and corporate governance

(DIV/ASSETS), the ratio of the payout amount to the book value of equity (DIV/EQUITY) and the ratio of the payout amount to the market value of equity (DIV/ME). We include LID which is a dummy variable with the value of 1 (long-term investor) if foreign investors' turnover ratio is below stock turnover ratio, or 0 (short-term investor) otherwise. We use control variables described in Table 1, and control for industry effects and year effects by including dummy variables.

Table 4 presents the results of these regressions with *t*-statistics and significance levels. Columns (1)–(3) present the results for the regressions using the foreign ownership level itself and columns (4)–(6) present the results considering the foreign investment horizons. As shown in columns (1)–(3), the coefficients estimate on foreign ownership level (FOR) are all significant and positive. We find that foreign holdings have a positive effect on payout policy. These results are consistent with findings from prior research that argues a positive relation between institutional holdings and payout policy (Short *et al.*, 2002; Jagannathan *et al.*, 2000).

Now, we consider the impact of foreign ownership stability since different foreign investors take different actions. We construct an interaction variable (FOR × LID) which measures long-term foreign investment. First, we investigate the case given LID = 0, which is the situation where foreign investors are short-term investors. In columns (4), (5) and (6), Table 4, we find the insignificant negative coefficient for FOR. On the other hand, we observe that the sum of the coefficients of FOR and FOR × LID is positive (0.0248) and significant, in column (4), when we investigate the case given LID = 1, which is the situation where foreign investors are long-term investors. The results are robust to different payout ratios, in column (5) and column (6).

The positive sum of the coefficients of FOR and FOR × LID is in line with Hovakimian and Li (2010), who argue that higher long-term institutional holdings lead to higher dividends and share repurchases. These results also indicate that foreign investors with long-term investments cause firms to increase payout, while foreign investors with short-term investments do not cause firms to increase their payout. Therefore, we argue that only long-term foreign investors force firms to payout cash to mitigate inefficient behavior and agency conflicts, supporting hypothesis 1.

As controlling variable, leverage (LEV) and standard deviation of ROA over the past 5 years (STDROA) have a negative relation with payout. Cash flow divided by assets (CASHFLOW) and profitability (ROE) have a positive relation with payout. These findings are qualitatively consistent with existing literature. Growth opportunity (GROWTH) has a positive relation with payout, although it is not always significant. La Porta *et al.* (2000) explain that high growth firms with countries with low shareholder protection have higher dividend payouts while high growth firms within countries with good shareholder protection have low dividend payouts.

### 4.2 The effect of foreign investment horizons on total payouts based on corporate governance

We also examine whether foreign investment horizons have a different effect on payout policy with consideration of the extent of corporate governance. Previous results of Table 4 show that larger holdings by foreign investors with long-term investments do cause firms to increase payouts in order to reduce agency costs, while foreign investors with short horizons have fewer incentives to spend resources on monitoring. In addition, we consider corporate governance. An effective corporate governance system is also a method of reducing agency conflicts (Jiraporn and Ning, 2006). Strong corporate governance controls the potential for suboptimal managerial behavior, and thus the cash distributions required to offset them are lower (John and Knyazeva, 2006).

With this view, we conjecture that if a firm is equipped with efficient corporate governance, its agency problems can be suppressed and long-term foreign investors may

| | DIV/ASSETS (1) | DIV/EQUITY (2) | DIV/ME (3) | DIV/ASSETS (4) | DIV/EQUITY (5) | DIV/ME (6) |
|---|---|---|---|---|---|---|
| FOR (b1) | 0.0233*** (4.09) | 0.0299*** (3.62) | 0.0169*** (2.82) | -0.0022 (-0.26) | -0.0026 (-0.18) | -0.0111 (-0.90) |
| FOR × LID (b2) | | | | 0.0270*** (3.40) | 0.0308** (1.99) | 0.0247** (1.97) |
| LID | | | | -0.0012 (-0.97) | 0.0007 (0.30) | 0.0018 (0.83) |
| SIZE | -0.0004 (-0.72) | 0.0010 (1.19) | 0.0002 (0.25) | -0.0001 (-0.07) | 0.0014* (1.65) | 0.0005 (0.72) |
| GROWTH | 0.0117*** (5.92) | 0.0185*** (5.48) | -0.0004 (-0.21) | 0.0117*** (5.94) | 0.0187*** (5.49) | -0.0001 (-0.06) |
| LEV | -0.0245*** (-6.94) | -0.0153** (-2.50) | -0.0353*** (-6.34) | -0.0258*** (-7.25) | -0.0170** (-2.79) | -0.0367*** (-6.51) |
| CASHFLOW | 0.0583*** (7.12) | 0.0994*** (5.87) | 0.0579*** (4.42) | 0.0574*** (7.06) | 0.0983*** (5.85) | 0.0569*** (4.36) |
| ROE | 0.0088*** (2.65) | 0.0148** (2.16) | 0.0165*** (2.31) | 0.0088*** (2.70) | 0.0147** (2.16) | 0.0163** (2.30) |
| STDROA | -0.0906*** (-4.73) | -0.1468*** (-4.46) | -0.1598*** (-5.27) | -0.0908*** (-4.72) | -0.1457*** (-4.39) | -0.1576*** (-5.20) |
| STOCKRETURN | -0.0021** (-1.98) | -0.0017 (-0.81) | -0.0020 (-0.92) | -0.0021** (-2.00) | -0.0017 (-0.83) | -0.0020 (-0.94) |
| LARGE | -0.0003 (-0.07) | -0.0017 (-0.29) | 0.0053 (0.94) | -0.0001 (-0.00) | -0.0012 (-0.21) | 0.0057 (1.01) |
| INTERCEPT | 0.0433** (2.26) | 0.0389 (1.43) | 0.0632*** (4.82) | 0.0399** (2.08) | 0.0339 (1.24) | 0.0586*** (4.42) |
| INDUSTRY DUMMY | YES | YES | YES | YES | YES | YES |
| YEAR DUMMY | YES | YES | YES | YES | YES | YES |
| R-square | 0.1560 | 0.1317 | 0.0459 | 0.1573 | 0.1335 | 0.0472 |
| Coefficient test | | | | | | |
| (b1) | 0.0233 [0.0000] | 0.0299 [0.0003] | 0.0169 [0.0049] | -0.0022 [0.7963] | -0.0026 [0.8598] | -0.0111 [0.3676] |
| (b1) + (b2) | — | — | — | 0.00159 [0.0001] | 0.0282 [0.0034] | 0.0136 [0.0443] |

**Note(s):** The sample includes 1,372 Korean listed firms from 2006 to 2009. We employ Tobit regressions, and control heteroskedasticity using Huber and White estimators. The dependent variable measures payout ratios: DIV/ASSETS, DIV/EQUITY and DIV/ME. DIV/ASSETS is (cash dividends + stock repurchases) over assets. DIV/EQUITY is (cash dividends + stock repurchases) over book value of equity. DIV/ME is (cash dividends + stock repurchases) over market value of equity. FOR is foreign investor's ownerships. SIZE is natural log of sales. GROWTH is Market value of assets/book value of assets. LEV is book value of debt to book value of assets. CASHFLOW is operating income minus taxes, interest expenses and preferred and common dividends scaled by book assets. ROE is earnings to book value of equity. STDROA is standard deviation of the ratio of operating income to the total assets over the past 5 years. STOCKRETURN is compounded monthly return for the previous year. LARGE is sum of the stock ownerships by the largest shareholder and its related parties. LID is dummy variable with the value of 1 (long-term investor) if foreign investors' turnover ratio is below stock turnover ratio, or 0 (short-term investor) otherwise. Numbers in parentheses are t-statistics and ***, **, and * denote significance at 1%, 5% and 10%, respectively. Coefficient tests show whether the sum of the coefficients is significantly different from 0 by the Wald test. Numbers in [ ] denote p-values

**Table 4.**
The effect of foreign investment horizons on total payouts

regard costly dividends as a redundant device to control agency problems. This expectation indicates that the effectiveness of corporate governance in a company with agency problems is a key factor to decide its payout policy. Thus, we need another three-way interaction variable (FOR × LID × CGD) among foreign ownerships, investment horizons and corporate governance. Here, LID and CGD are dummy variables.

To confirm the significance of the interaction variable (FOR × LID × CGD), we estimate Tobit specification including corporate governance. We consider two interesting cases to test Hypothesis 2: the first one is when the long-term foreign institutions invest the firms with weak corporate governance (LID = 1 and CGD = 0), and the second one is when long-term foreign institutions invest the firms with strong corporate governance (LID = 1 and CGD = 1).

First, we investigate the case given LID = 1 and CGD = 0. This is the situation to investigate the effect of long-term foreign investor on payouts when the firm has weak corporate governance. In Table 5, we find significantly positive coefficients for FOR × LID. The sum of coefficients (b1+b2), which implies the impact of change in long-term foreign investors' ownerships on the expected change in the firm's payout ratios in a regression models, are positive and statistically different from zero. This result implies that when firms have weak corporate governance (CGD = 0), firms generally payout more cash as the shareholdings of foreign investors (FOR) with long-term investment (LID = 1) increases.

Second, we consider the case given LID = 1 and CGD = 1, which is the situation that investigates the effect of long-term foreign investor on payout policy when the firm has strong corporate governance. Consider column (1), Table 5, given LID = 1 and CGD = 1, the coefficient of FOR × LID × CGD is negative (−0.0340) and significant. The coefficient for FOR × LID × CGD in column (2) and column (3) in Table 5, ceteris paribus, is also significantly negative (−0.0491, −0.0555). These results do not change when controlling for variables. The negative coefficient implies that strong corporate governance decreases a positive relation between payout amount and long-term foreign investors' shareholdings.

In coefficient tests below Table 5, the values of b1+b2+b3 (sum of coefficients), which report average marginal effects at the respective means, are less than values of b1+b2. They are not significantly different from zero in columns (4)–(6) with controlling variables. In summary, long-term foreign investors seem to increase payout of a firm when the firm has weak corporate governance. However, if the firm has strong corporate governance, long-term foreign investors do not force the firm to increase payout.

Conclusively all results in this section confirm hypothesis 2 and suggest empirical evidence that foreign investors with large stakes and long-term investment provide management with incentive to distribute cash flow to shareholders when the firm has weak corporate governance.

Our results shed light on the interpretation of studies about the relation between foreign investors as institutions and payout policy. In general, previous studies have focused on institutional investment horizons and monitoring roles in firms' payout policy. We argue that the effect of foreign investment horizons on payout policy depends upon the extent of the corporate governance within the each company. And empirical results show that the potential monitoring role of long-term foreign investment and the monitoring role of corporate governance is a substitute rather than a complementary mechanism in mitigating agency concerns.

## 5. Robustness checks
### 5.1 Causality analysis
In section 4, we have examined the effect of foreign investment horizons on payout policy. However, it could be possible that the causality run from payout policy to foreign investment

| | DIV/ASSETS (1) | DIV/EQUITY (2) | DIV/ME (3) | DIV/ASSETS (4) | DIV/EQUITY (5) | DIV/ME (6) |
|---|---|---|---|---|---|---|
| FOR (b1) | 0.0238*** (2.81) | 0.0393** (2.48) | 0.0071 (0.60) | -0.0137 (-1.73) | -0.0215 (-1.54) | -0.0272** (-2.19) |
| FOR × LID (b2) | 0.0400*** (3.04) | 0.0485** (2.27) | 0.0438** (2.89) | 0.0522*** (4.75) | 0.0717*** (3.99) | 0.0620*** (4.16) |
| FOR × LID × CGD (b3) | -0.0340*** (-2.81) | -0.0491*** (-2.69) | -0.0555*** (-5.24) | -0.0312*** (-2.96) | -0.0502*** (-3.00) | -0.0474*** (-4.52) |
| CGD | 0.0069*** (4.23) | 0.0143*** (4.67) | 0.0069** (3.12) | 0.0046*** (3.05) | 0.0083*** (2.71) | 0.0045* (1.95) |
| LID | -0.0017 (-1.21) | 0.0001 (0.03) | 0.0030 (1.31) | -0.0017 (-1.37) | -0.0001 (-0.03) | 0.0011 (0.48) |
| SIZE | | | | 0.0001 (0.11) | 0.0014* (1.68) | 0.0010 (1.30) |
| GROWTH | | | | 0.0117*** (5.98) | 0.0186*** (5.53) | 0.0001 (0.03) |
| LEV | | | | -0.0262*** (-7.36) | -0.0174** (-2.87) | -0.0375*** (-6.71) |
| CASHFLOW | | | | 0.0571*** (7.06) | 0.0978*** (5.82) | 0.0565*** (4.37) |
| ROE | | | | 0.0086*** (2.73) | 0.0143** (2.17) | 0.0160** (2.31) |
| STDROA | | | | -0.0813*** (-4.24) | -0.1293*** (-3.81) | -0.1455*** (-4.83) |
| STOCKRETURN | | | | -0.0020* (-1.94) | -0.0016 (-0.77) | -0.0020 (-0.93) |
| LARGE | | | | -0.0014 (-0.42) | -0.0033 (-0.58) | 0.0029 (0.52) |
| INTERCEPT | 0.0406** (2.46) | 0.0646*** (2.83) | 0.0569*** (6.29) | 0.0374** (2.13) | 0.0314 (1.25) | 0.0511*** (4.02) |
| INDUSTRY DUMMY | YES | YES | YES | YES | YES | YES |
| YEAR DUMMY | YES | YES | YES | YES | YES | YES |
| R-square | 0.1518 | 0.1273 | 0.0535 | 0.1602 | 0.1195 | 0.0503 |
| Coefficient test | | | | | | |
| (b1) + (b2) | 0.0638 [0.0000] | 0.0878 [0.0000] | 0.0509 [0.0000] | 0.0385 [0.0000] | 0.0502 [0.0001] | 0.0348 [0.0001] |
| (b1) + (b2) + (b3) | 0.0298 [0.0005] | 0.0387 [0.0049] | -0.0046 [0.5516] | 0.0073 [0.3032] | 0.0000 [0.9989] | -0.0126 [0.1402] |

**Note(s):** The sample includes 1,372 Korean listed firms from 2006 to 2009. We employ Tobit regressions, and control heteroskedasticity using Huber and White estimators. The dependent variable measures payout ratios: DIV/ASSETS, DIV/EQUITY and DIV/ME. DIV/ASSETS is (cash dividends + stock repurchases) over assets. DIV/ASSETS is (cash dividends + stock repurchases) over assets. DIV/EQUITY is (cash dividends + stock repurchases) over book value of equity. DIV/ME is (cash dividends + stock repurchases) over market value of equity. FOR is foreign investors' ownerships. SIZE is natural log of sales. GROWTH is Market value of assets/book value of assets. LEV is book value of debt to book value of assets. CASHFLOW is operating income minus taxes, interest expenses, and preferred and common dividends scaled by book assets. ROE is earnings to book value of equity. STDROA is standard deviation of the ratio of operating income to the total assets over the past 5 years. STOCKRETURN is compounded monthly return for the previous year. LARGE is sum of the stock ownerships by the largest shareholder and its related parties. LID is dummy variable with the value of 1 (long-term investor) if foreign investors' turnover ratio is below stock turnover ratio, or 0 (short-term investor) otherwise. CGD is dummy variable with the value of 1 if corporate governance index is above sample mean, or 0 otherwise. Numbers in parentheses are t-statistics and ***, ** and * denote significance at 1%, 5% and 10%, respectively. Coefficient tests show whether the sum of the coefficients is significantly different from 0 by the Wald test. Numbers in [] denote p-values

**Table 5.**
The effect of foreign investment horizons on total payouts based on corporate governance

horizons. For example, the dividend clientele theory (Black and Scholes, 1974; Allen *et al.*, 2000) predicts that institutional investors will increase their shareholdings of firms paying high dividends. In this view, one possible explanation of our results is that foreign investors with long and short investment horizons are simply attracted to firms with different dividend policies.

To account for this endogenous bias, we run a test of causality between foreign ownership and payout policy. We consider the panel vector autoregressive model (e.g. Holtz-Eakin *et al.*, 1988), similar to the one used by Gaspar *et al.* (2012).

We assume that a lag is 1 year for both equations (3) – (4). This modeling is based on the results of Grinstein and Michaely (2005). They state that it takes no more 1 year for past institutional holdings and past payout to affect future payout, and that it takes no more than 1 year for past payout and past institutional holdings to affect future institutional holdings. The specifications are followings.

$$DIV_{i,t+1} = \beta_0 + \beta_1 FOR_{i,t} + \beta_2 CGI_{i,t} \times LID_{i,t} + \beta_3 X_{i,t} + v_{i,t} + \varepsilon_{i,t} \tag{3}$$

$$FOR_{i,t+1} = \beta_0 + \beta_1 DIV_{i,t} + \beta_2 CGI_{i,t} \times LID_{i,t} + \beta_3 X_{i,t} + v_{i,t} + \varepsilon_{i,t} \tag{4}$$

where, $v_{i,t}$ represents firm specific effects, $\varepsilon_{i,t}$ represents serially idiosyncratic errors [9].

First, in Panel A of Table 6, columns (1)–(3) present the coefficients of FOR(t) as the effect of long-term foreign investors on payout($t+1$). We find that all of them are positive and significant in column (1) and column (2). In contrast, columns (4)–(6) present the coefficients of DIV($t$) as the effect of payout on ownership of long-term foreign investors, FOR($t+1$). All coefficients of DIV(t) are negative and not significant. These results show that higher payout results in higher long-term foreign investors, while the higher payout does not attract more long-term foreign investors. It confirms our previous findings. It means that Korean firms will not increase payouts in an effort to attract more long-term foreign investors, while enhanced monitoring by long-term foreign investors may lead firms to increase payout.

Panel B of Table 6 presents the results for short-term investors. We do not find a constantly significant relation between short-term foreign investors' holdings and payout. These results are similar to the empirical results of previous literature (Hovakimian and Li, 2010; Gaspar *et al.*, 2012).

For each regression, we test the specification of the equation with the Hansen test for instrument validity, and then we test it with the serial correlation test for second-order serial correction. The results suggest that our instruments are valid and there exists no evidence of second serial correlation in our estimation.

*5.2 Determinants of total payouts using probit regression*
Generally firm's payout policy on how much to pay out could be mixed with the decision of whether to distribute cash (Grinstein and Michaely, 2005; Gaspar *et al.*, 2012). With this view, we examine that the likelihood of payout increases with the investment horizons of foreign institution investors and that the positive relation decreases in the firm with strong corporate governance. We employ the Probit model, where the dependent variable is a dummy variable equal to one for firms with a positive total payout and zero otherwise.

The results with these specifications are similar to those in Table 5. In Table 7, the results show that the coefficient estimates of FOR $\times$ LID are significantly positive in columns (3)–(4). We also find that the coefficient of FOR $\times$ LID $\times$ CGD is negative and significant in column (5) and column (6).

These results imply that when firms have weak corporate governance, firms are likely to pay out more cash as shareholdings of foreign investors with long-term horizons increase. On the other hand, strong corporate governance tends to decrease a positive relation between payout policy and long-term foreign investors' shareholdings.

| | FOR(t) → DIVIDEND(t+1) | | | DIVIDEND(t) → FOR(t+1) | | |
| | DIV/ASSET | DIV/EQUITY | DIV/ME | FOR | FOR | FOR |
| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| *Panel A: Long-term foreign investors* | | | | | | |
| DIV/ASSETS | 0.4803**** (5.65) | | | | | |
| DIV/EQUITY | | 0.3704**** (4.31) | | | | |
| DIV/ME | | | 0.0835 (1.61) | −0.1416 (−0.63) | −0.1015 (−0.72) | −0.1036 (−1.21) |
| FOR | 0.0343** (2.53) | 0.0516** (2.50) | 0.0160 (1.24) | 0.9056**** (32.20) | 0.8983**** (31.41) | 0.8846**** (31.57) |
| CGI | −0.0133 (−1.44) | 0.0079 (0.36) | −0.0144 (−1.05) | 0.0177 (0.50) | 0.0267 (0.75) | 0.0249 (0.74) |
| *P* value of AR(2) test | 0.9702 | 0.6871 | 0.9943 | 0.7162 | 0.7204 | 0.7021 |
| *P* value Hansen test | 0.1665 | 0.0687 | 0.0019 | 0.0118 | 0.0115 | 0.0069 |
| | DIV/ASSSET | DIV/EQUITY | DIV/ME | FOR | FOR | FOR |
| *Panel B: Short-term foreign investors* | | | | | | |
| DIV/ASSETS | 0.0999** (2.20) | | | | | |
| DIV/EQUITY | | 0.3761**** (3.97) | | | | |
| DIV/ME | | | 0.2559** (2.47) | 0.1541* (1.83) | 0.0744 (1.25) | 0.0032 (0.07) |
| FOR | 0.0344 (1.54) | 0.0231 (0.98) | 0.0173 (1.53) | 0.9006**** (14.97) | 0.8931**** (16.44) | 0.8493**** (13.58) |
| CGI | −0.0099 (−0.56) | 0.0049 (0.33) | 0.0028 (0.40) | 0.0150 (0.59) | 0.0235 (1.03) | 0.0382 (1.53) |
| *P* value of AR(2) test | 0.4782 | 0.6942 | 0.5870 | 0.9380 | 0.9433 | 0.9881 |
| *P* value Hansen test | 0.0138 | 0.1635 | 0.1382 | 0.1553 | 0.3075 | 0.0952 |

**Note(s):** This table presents dynamic panel estimates of the causal relation between foreign ownership and total payout ratio controlling corporate governance. We use the GMM dynamic panel data estimator of Blundell and Bond (1998). The sample includes 1,372 Korean listed firms from 2006 to 2009. DIV/ASSETS is (cash dividends + stock repurchases) over assets. DIV/EQUITY is (cash dividends + stock repurchases) over book value of equity. DIV/ME is (cash dividends + stock repurchases) over market value of equity. FOR is foreign investors' ownerships. CGI is corporate governance index. Numbers in parentheses are *t*-statistics and ****, *** , and * denote significance at 1%, 5% and 10%, respectively. The table shows the *p* value of the hypothesis test that the first-differenced residuals are auto-correlated of order 2, and the *p* value of the Hansen test of the null hypothesis of validity of the over-identifying moment conditions

Table 6.
Causality
analysis (VAR)

The dependent variable is a dummy variable equal to 1 in the first year that a firm announces a dividend or repurchase and 0 otherwise

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| FOR (b1) | 6.1927*** (8.97) | 3.8495*** (5.43) | 5.4841*** (3.77) | 0.5276 (0.38) | 4.0335*** (2.79) | −0.0414 (−0.03) |
| FOR × LID (b2) | | | 0.2632 (0.17) | 4.0860*** (2.61) | 2.3267 (1.34) | 5.4280*** (3.16) |
| FOR × LID × CGD (b3) | | | | | −2.5961** (−2.51) | −2.4433* (1.92) |
| CGD | | | | | 0.5456*** (4.52) | 0.3193** (2.31) |
| LID | | | | | 0.1418 (1.23) | 0.0128 (0.10) |
| SIZE | | 0.2176*** (4.25) | | 0.2474*** (4.83) | | 0.2263*** (4.26) |
| GROWTH | | 0.2813* (1.78) | | 0.2777* (1.71) | | 0.2560 (1.58) |
| LEV | | −3.1185*** (−8.52) | | −3.3046*** (−9.02) | | −3.3194*** (−9.10) |
| CASHFLOW | | 2.7615*** (4.14) | | 2.7286*** (4.03) | | 2.7352*** (4.08) |
| ROE | | 0.7394*** (4.07) | | 0.7497*** (4.32) | | 0.7316*** (4.25) |
| STDROA | | −6.9170*** (−4.21) | | −6.8044*** (−4.09) | | −6.4819*** (−3.87) |
| STOCKRETURN | | −0.0573 (−0.68) | | −0.0513 (−0.60) | | −0.0386 (−0.45) |
| LARGE | | 0.5852* (1.85) | | 0.5977* (1.85) | | 0.5780* (1.77) |
| INTERCEPT | 6.1970*** (13.38) | 4.3915*** (6.23) | 6.1703*** (8.23) | 4.1299*** (4.27) | 6.2013*** (8.35) | 4.4166*** (6.20) |
| INDUSTRY DUMMY | YES | YES | YES | YES | YES | YES |
| YEAR DUMMY | YES | YES | YES | YES | YES | YES |
| R-square | 0.1161 | 0.3577 | 0.1177 | 0.3541 | 0.1355 | 0.3598 |
| Coefficient test | | | | | | |
| (b1) + (b2) | – | – | 5.7473 [0.0000] | 4.6136 [0.0000] | 6.3602 [0.0000] | 5.3866 [0.0000] |
| (b1) + (b2) + (b3) | – | – | – | – | 3.7641 [0.0000] | 2.9433 [0.0058] |

**Note(s):** The sample includes 1,372 Korean listed firms from 2006 to 2009. We employ the Probit model, where the dependent variable is a dummy variable equal to 1 in the first year that a firm announces a dividend or repurchase and 0 otherwise. FOR is foreign investors' ownerships. SIZE is natural log of sales. GROWTH is Market value of assets/book value of assets. LEV is book value of debt to book value of assets. CASHFLOW is operating income minus taxes, interest expenses, and preferred and common dividends scaled by book value of equity. STDROA is standard deviation of the ratio of operating income to the total assets over the past 5 years. ROE is earnings to book value of assets. STOCKRETURN is compounded monthly return for the previous year. LARGE is sum of the stock ownerships by the largest shareholder and its related parties. LID is dummy variable with the value of 1 (long-term investor) if foreign investors' turnover ratio is below stock turnover ratio, or 0 (short-term investor) otherwise. CGD is dummy variable with the value of 1 if corporate governance index is above sample mean, or 0 otherwise. Numbers in parentheses are t-statistics and ***, ** , and * denote significance at 1%, 5% and 10%, respectively. Coefficient tests show whether the sum of the coefficients is significantly different from 0 by the Wald test. Numbers in [ ] denote p-values

Table 7.
Foreign investment
horizons and payout
initiation based on
corporate governance

These findings are consistent with the agency theories about monitoring role of long-term foreign investors and our hypothesis that their monitoring intensity for payout policy decreases with strong corporate governance. Overall, the findings provide further support for the Hypothesis 2.

*5.3 Sample selection issues*
In the question of a possible sample selection issue, we replicate our results using a two-stage Heckman methodology according to Gaspar *et al.* (2012). In the first stage, firms decide whether a payout will initiate or not, while in the second the size of a payout is decided. In this sub-section, the results of second stage estimation are reported in Table 8. We include the two instrument variables following Gaspar *et al.* (2012): sales growth, the average of the past 3 year's percentage change in sales, and log of firm age, the natural logarithm of the time in years after IPO. Table 8 presents the results.

The results are consistent with our earlier findings on the interaction effects of foreign investors' ownerships, their investment horizons and corporate governance on payout policy. It suggests that our results hold even after controlling for sample selection.

*5.4 Foreign investors holding more than 5%*
Demsetz (1983) and Shleifer and Vishny (1986) argue that owners of large blocks of shares have higher incentives to monitor managers, while small shareholders may not pay costs to monitor the performance of the management. According to Shleifer and Vishny (1986), while small owners are likely to prefer capital gains, large shareholders favor dividends. In this sub-session, we focus on firms in which the foreign investor holds more than 5%.

We find similar, confirmatory evidence in Table 9. We investigate the case given LID = 0 and CGD = 0. This is the situation to investigate the effect of short-term foreign investors holding more than 5% when the firm has weak corporate governance. As shown in columns (4)–(6), the coefficients estimate on short-term FOR are all significant and negative. It suggests that large foreign investors with short-term horizon have a negative effect on payout policy. Next, we consider the case given LID = 1 and CGD = 0, which is long-term large foreign investor for firms with weak governance. We find the significantly positive coefficients for FOR × LID, similar to Table 5. The sum of coefficients (b1+b2) are also positive and significant. Finally, we consider the case given LID = 1 and CGD = 1. As shown in columns (4)–(6), the coefficient of FOR × LID × CGD is significantly negative after controlling for variables, similar to Table 5.

*5.5 Evidence excluding non-paying firms*
Although we perform tests in the sample that includes both paying and non-paying firms, we also focus on firms that make distributions. Gaspar *et al.* (2012) concentrate on the set of firms with positive payouts in a given year. They argue that cross-sectional differences in shareholder monitoring play less of a role for these firms, since they are already distributing cash to shareholders. We conduct robustness tests that exclude firms with zero payout in Table 10. Overall, the results from these robustness tests still support our hypothesis.

## 6. Conclusion
This paper investigates how monitoring roles of long-term foreign investors on firms' payout policies change according to a firm' strength of shareholder rights. When we investigate the relation between payout policies and foreign investor's shareholdings, we simultaneously consider the investment horizons of foreign investors and corporate governance levels. Previous literature mostly focused on institutional investors considers the relation between

| | DIV/ASSETS (1) | DIV/EQUTIY (2) | DIV/ME (3) | DIV/ASSETS (4) | DIV/EQUITY (5) | DIV/ME (6) |
|---|---|---|---|---|---|---|
| INTERCEPT | 0.0452*** (7.10) | 0.0712*** (7.02) | 0.0729*** (8.99) | 0.0631*** (7.13) | 0.0806*** (5.20) | 0.1273*** (9.52) |
| FOR (b1) | −0.0156 (−1.32) | −0.0167 (−0.87) | −0.0444*** (−2.89) | −0.0099 (−0.92) | −0.0107 (−0.57) | −0.0168 (−1.04) |
| FOR × LID (b2) | 0.0624*** (4.64) | 0.0812*** (3.73) | 0.0753*** (4.31) | 0.0469*** (3.98) | 0.0587*** (2.84) | 0.0527*** (2.96) |
| FOR × LID × CGD (b3) | −0.0138* (−1.72) | −0.0148 (−1.15) | −0.0352*** (−3.41) | −0.0199*** (−2.80) | −0.0226* (−1.82) | −0.0251** (−2.35) |
| CONTROL VAR. | NO | NO | NO | YES | YES | YES |
| INDUSTRY DUMMY | YES | YES | YES | YES | YES | YES |
| YEAR DUMMY | YES | YES | YES | YES | YES | YES |
| R-square | 0.0996 | 0.1011 | 0.0351 | 0.1556 | 0.0942 | 0.0223 |
| Coefficient test | | | | | | |
| (b1) + (b2) | 0.0468 [0.0000] | 0.0645 [0.0000] | 0.0309 [0.0002] | 0.0370 [0.0000] | 0.0480 [0.0000] | 0.0359 [0.0000] |
| (b1) + (b2) + (b3) | 0.0330 [0.0000] | 0.0497 [0.0000] | −0.0043 [0.6071] | 0.0171 [0.0073] | 0.0254 [0.0235] | 0.0108 [0.2643] |

**Note(s):** This table presents the second stage results of a two-stage Heckman (1979) sample selection model. The first stage of the selection model is estimated in the universe of Korean listed firms for which data on our variables exist from 2006 to 2009. The dependent variable measures payout ratios: DIV/ASSETS, DIV/EQUITY and DIV/ME. DIV/ASSETS is (cash dividends + stock repurchases) over assets. DIV/EQUITY is (cash dividends + stock repurchases) over book value of equity. DIV/ME is (cash dividends + stock repurchases) over market value of equity. FOR is foreign investors' ownerships. LID is dummy variable with the value of 1 (long-term investor) if foreign investors' turnover ratio is below stock turnover ratio, or 0 (short-term investor) otherwise. CGD is dummy variable with the value of 1 if corporate governance index is above sample mean, or 0 otherwise. Numbers in parentheses are *t*-statistics and ***, ** and * denote significance at 1%, 5% and 10%, respectively. Coefficient tests show whether the sum of the coefficients is significantly different from 0 by the Wald test. Numbers in [ ] denote *p*-values

Table 8.
Estimates adjusting for sample selection

|  | DIV/ASSETS (1) | DIV/EQUITY (2) | DIV/ME (3) | DIV/ASSETS (4) | DIV/EQUITY (5) | DIV/ME (6) |
|---|---|---|---|---|---|---|
| INTERCEPT | 0.0626*** (2.81) | 0.1026*** (3.33) | 0.0663*** (5.15) | 0.0707*** (3.08) | 0.0803*** (2.71) | 0.1128*** (6.77) |
| FOR (b1) | −0.0229* (−1.75) | −0.0527** (−2.46) | −0.0568*** (−3.02) | −0.0330*** (−2.85) | −0.0552*** (−2.90) | −0.0583*** (−3.17) |
| FOR × LID (b2) | 0.0810*** (4.63) | 0.1298*** (4.87) | 0.0921*** (4.25) | 0.0709*** (4.89) | 0.1043*** (4.68) | 0.0872*** (4.28) |
| FOR × LID × CGD (b3) | −0.0216 (−1.59) | −0.0276 (−1.42) | −0.0300** (−2.57) | −0.0225** (−1.97) | −0.0316* (−1.86) | −0.0244** (−2.22) |
| CONTROL VAR. | NO | NO | NO | YES | YES | YES |
| INDUSTRY DUMMY | YES | YES | YES | YES | YES | YES |
| YEAR DUMMY | YES | YES | YES | YES | YES | YES |
| R-square | 0.0977 | 0.0695 | 0.0343 | 0.0480 | 0.0279 | 0.0108 |
| Coefficient test |  |  |  |  |  |  |
| (b1) + (b2) | 0.0581 [0.0000] | 0.0771 [0.0000] | 0.0353 [0.0001] | 0.0379 [0.0000] | 0.0491 [0.0002] | 0.0289 [0.0008] |
| (b1) + (b2) + (b3) | 0.0365 [0.0003] | 0.0495 [0.0004] | 0.0053 [0.5211] | 0.0154 [0.0545] | 0.0175 [0.1641] | 0.0045 [0.6177] |

**Note(s):** This table presents regression results of excluding firms with foreign ownerships less than 5%. The sample includes 712 Korean listed firms from 2006 to 2009. We employ Tobit regressions, and control heteroskedasticity using Huber and White estimators. The dependent variable measures payout ratios: DIV/ASSETS, DIV/EQUITY and DIV/ME. DIV/ASSETS is (cash dividends + stock repurchases) over assets. DIV/EQUITY is (cash dividends + stock repurchases) over book value of equity. DIV/ME is (cash dividends + stock repurchases) over market value of equity. FOR is foreign investors' ownerships. LID is dummy variable with the value of 1 (long-term investor) if foreign investors' turnover ratio is below stock turnover ratio, or 0 (short-term investor) otherwise. CGD is dummy variable with the value of 1 if corporate governance index is above sample mean, or 0 otherwise. Numbers in parentheses are t-statistics, and ***, **, and * denote significance at 1%, 5% and 10%, respectively. Coefficient tests show whether the sum of the coefficients is significantly different from 0 by the Wald test. Numbers in [ ] denote p-values

**Table 9.**
The effect of foreign investment horizons on total payouts excluding firms with foreign ownerships less than 5%

| | DIV/ASSETS (1) | DIV/EQUITY (2) | DIV/ME (3) | DIV/ASSETS (4) | DIV/EQUITY (5) | DIV/ME (6) |
|---|---|---|---|---|---|---|
| INTERCEPT | 0.0494*** (2.87) | 0.0793*** (3.32) | 0.0744*** (7.86) | 0.0609*** (3.39) | 0.0704*** (2.82) | 0.1194*** (9.66) |
| FOR (b1) | −0.0091 (−1.21) | −0.0148 (−1.04) | −0.0497*** (−5.17) | −0.0147* (−1.88) | −0.0219* (−1.73) | −0.0224** (−2.06) |
| FOR × LID (b2) | 0.0617*** (4.82) | 0.0816*** (4.05) | 0.0768*** (6.06) | 0.0507*** (4.77) | 0.0659*** (3.98) | 0.0546*** (4.23) |
| FOR × LID × CGD (b3) | −0.0205* (−1.68) | −0.0265 (−1.45) | −0.0321*** (−3.34) | −0.0219** (−2.12) | −0.0335** (−2.07) | −0.0254*** (−2.73) |
| CONTROL VAR. | NO | NO | NO | YES | YES | YES |
| INDUSTRY DUMMY | YES | YES | YES | YES | YES | YES |
| YEAR DUMMY | YES | YES | YES | YES | YES | YES |
| R-square | 0.1314 | 0.1150 | 0.0352 | 0.1732 | 0.0859 | 0.0287 |
| Coefficient test | | | | | | |
| (b1) + (b2) | 0.0526 [0.0000] | 0.0668 [0.0000] | 0.0271 [0.0004] | 0.0360 [0.0001] | 0.0440 [0.0005] | 0.0322 [0.0000] |
| (b1) + (b2) + (b3) | 0.0321 [0.0002] | 0.0403 [0.0039] | −0.0050 [0.4842] | 0.0141 [0.0424] | 0.0105 [0.4049] | 0.0068 [0.3600] |

**Note(s):** This table presents regression results of excluding firms with zero payout. The sample includes 1,048 Korean listed firms from 2006 to 2009. We employ Tobit regressions, and control heteroskedasticity using Huber and White estimators. The dependent variable measures payout ratios: DIV/ASSETS, DIV/EQUITY, and DIV/ME. DIV/ASSETS is (cash dividends + stock repurchases) over assets. DIV/EQUITY is (cash dividends + stock repurchases) over book value of equity. DIV/ME is (cash dividends + stock repurchases) over market value of equity. FOR is foreign investors' ownerships. LID is dummy variable with the value of 1 (long-term investor) if foreign investors' turnover ratio is below stock turnover ratio, or 0 (short-term investor) otherwise. CGD is dummy variable with the value of 1 if corporate governance index is above sample mean, or 0 otherwise. Numbers in parentheses are *t*-statistics, and ***, **, and * denote significance at 1%, 5% and 10%, respectively. Coefficient tests show whether the sum of the coefficients is significantly different from 0 by the Wald test. Numbers in [ ] denote *p*-values

their investment horizons and dividend policies. However we notice that corporate governance is also important as a company pays more dividends and repurchases own stock. Therefore, a firm's payout policy, foreign investor's shareholdings and their investment horizons, and corporate governance should be considered at the same time.

We find the relation between long-term foreign investors and payout changes according to the levels of agency problems. When agency problems are measured by corporate governance index, we show that firms in the presence of long-term foreign investors pay more dividends with weaker corporate governance. However, we observe evidence that long-term foreign investors do not force firms to increase payout with low agency costs as their corporate governance becomes better.

Based upon all results of our analyses, we conclude that the relation between foreign investors and payout cannot be asserted without considering corporate governance, even if they are long-term investors.

## Notes

1. In the United States, institutional investors with more than $100 million in equity are required to report their quarter-end holdings in 13F filings with the Securities and Exchange Commission. Previous papers use the CDA/Spectrum database, which compiles the 13F filings, to compute institutional churn rate.

2. KCGS is a non-profit organization created by restructuring and expanding the Korea Corporate Governance Improvement Center, its predecessor body founded in June 2002.

3. We find similar results even if the foreign investment horizon is divided by a sample median of their turnover ratios as in the first measure. We do not tabulate the results for brevity, but the results are available from the authors upon request.

4. See Black and Kim (2012) and Byun *et al.* (2011) for survey questions on the corporate governance practice of listed Korean firms.

5. The payout amount means dividends plus share repurchases. Other than cash dividends, a company can pay out its earnings through share repurchases, so we use the sum of the amount of share repurchases and cash dividends (Grullon and Michaely, 2002). We measure the dollar volume of stock repurchases using the electronic disclosure system of the Korea Financial Supervisory Service which examines and supervises financial institutions.

6. The measure used in this study as a proxy for growth opportunities is Tobin's q, defined as market value of assets divided by book value of assets.

7. Total assets and sales are converted into US dollar at exchange rate KRW1156/USD.

8. We use Tobit specification of the regression model since the dependent variable is zero for a large number of observations.

9. For details, see Gaspar *et al.* (2012)

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**Appendix**

| Factor | Year | Score (point) | Percentage (%) | Main item |
|---|---|---|---|---|
| Shareholder rights | 2003 | 62 | 34 | • Adoption of corporate governance principles and the codes of ethics for executives and employees |
| | 2004 | 68 | 41 | |
| | 2005 | 74 | 38 | • Level of ownership by directors, except for the largest shareholder and his/her affiliated shareholders |
| | 2006 | 90 | 30 | |
| | 2007 | 90 | 30 | |
| | 2008 | 90 | 30 | • Incidence of cumulative voting in corporate charters |
| | 2009 | 90 | 30 | |
| | | | | • Incidence in corporate charters of the mechanisms to protect management (e.g. staggered term limits for executives) |
| | | | | • Incidence of explanations on shareholders' suggestions including director nominations in the materials for general shareholders' meetings |
| | | | | • Incidence of voting by mail, and so forth |
| Board of directors | 2003 | 35 | 20 | • Incidence of voting by mail, and so forth The number of independent directors in excess of the minimum required by the law |
| | 2004 | 34 | 20 | |
| | 2005 | 44 | 22 | |
| | 2006 | 90 | 30 | • Attendance rate of independent directors |
| | 2007 | 90 | 30 | • Incidence of cases where independent directors either objected or suggested a modification to the meeting agenda |
| | 2008 | 90 | 30 | |
| | 2009 | 90 | 30 | |
| | | | | • Incidence of cases where independent directors did ask for and obtained external expert assistance |
| | | | | • Number of independent directors who were recommended by either controlling shareholders (or their affiliated shareholders) or the management? |
| | | | | • Incidence of nomination committee or compensation committee |
| | | | | • Independent director as the chair of the nomination committee and so forth |
| Corporate disclosure | 2003 | 39 | 21 | • The number of voluntary disclosures during the year of the survey |
| | 2004 | 32 | 19 | |
| | 2005 | 47 | 24 | • The number of confirmatory disclosures during the year of the survey |
| | 2006 | 60 | 20 | |
| | 2007 | 60 | 20 | • The number of disclosures that corrected previous disclosures |
| | 2008 | 60 | 20 | |
| | 2009 | 60 | 20 | • Disclosure of board attendance rate of individual board members |
| | | | | • Provision of independent auditors' audit opinion and other material information in English |
| | | | | • Disclosure of annual reports, semi-annual reports and other items on the company web site, and so forth |

*(continued)*

**Table A1.**
Composition of
Corporate Governance
Index of Korean
Corporate Governance
Services[1]

| Factor | Year | Score (point) | Percentage (%) | Main item |
|---|---|---|---|---|
| Audit committee activities | 2003 | 16 | 9 | • Incidence of the audit committee |
| | 2004 | 20 | 12 | • Provision of the authority to the audit committee or the internal auditor to approve the selection of an individual who is in charge of internal audits |
| | 2005 | 21 | 11 | |
| | 2006 | 50 | 17 | |
| | 2007 | 50 | 17 | • The number of the audit committee meetings |
| | 2008 | 50 | 17 | • Incidence of non-audit consulting services performed by the independent external audit firm, and so forth |
| | 2009 | 50 | 17 | |
| Payout policies | 2003 | 30 | 16 | • Dividend yield |
| | 2004 | 13 | 8 | • Dividend payout ratio averaged over past three years |
| | 2005 | 10 | 5 | |
| | 2006 | 10 | 3 | • Incidence of stock repurchase, and so forth |
| | 2007 | 10 | 3 | |
| | 2008 | 10 | 3 | |
| | 2009 | 10 | 3 | |

**Note(s):** This table provides assessment items and scores of Korean Corporate Governance Services (KCGS) from year 2003–2009. Corporate governance Index (CGI) includes five sub-indices, which are Shareholder rights, Board of directors, Corporate Disclosure, Audit Committee Activity and Dividend Policy; [1]Appendix is cited from Byun *et al.* (2011)

**Table A1.**

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