Corporate Governance and Transparency in Japan

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ABSTRACT

We examine whether the quality rating of a listed company's corporate governance, in Japan, is related to its equity market transparency. Our data include disclosures and returns for over 1,700 firms for ten years ending 31 July 2013. We find firms with better corporate governance make more frequent disclosures. Examining good and bad news separately, we find better-governed firms make more frequent and timelier disclosures of good news, and their share prices reflect that news faster. However, we do not find the same results for bad news, which may help Japan's corporate regulators as they focus their future efforts.

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1. Introduction

Firms disclose information to the share market to help investors keep up-to-date. If information is not released in a timely fashion, they are limited in their ability to assess the firm's historical performance or reasons for changes in it. Greater transparency, evidenced by more frequent or more timely disclosures, can help resolve investors' uncertainty about future performance. Thus a significant literature has reported benefits of greater disclosure such as a lower cost of equity capital (Botosan, 2000), less idiosyncratic risk being borne by shareholders (Kitagawa & Okuda, 2016), and a reduced cost of debt (Sengupta, 1998). Although there are benefits, greater disclosure also is costly, which limits the amount of information a firm will optimally disclose (Verrecchia, 1983).

If "better" corporate governance (CG) results in closer monitoring of activities within the firm along with the adoption of more informative disclosure policies (i.e., CG and disclosure are complements, as regulators have proposed), then we may expect to observe a positive association between the perceived quality of the firm's CG and its level of transparency. If instead firms are free to adopt better (and costlier) CG structures to compensate for lower transparency to outsiders, and do so, then we may expect to observe a substitute relationship.

In this study we ask the question, how are CG and transparency related in Japan? Japan is an important place to address our research question because, although it is a mature, non-Western economy with one of the largest equity markets in the world, Japanese firms have not traditionally been viewed as particularly transparent to outsiders. There are a number of reasons for that view. One is that the CG arrangements that have typified Japanese firms – boards of directors dominated by insiders and large cross-shareholdings – may provide less incentive for disclosure to external parties. Another is that, in a cross-country study of earnings timeliness,

Ball *et al.* (2000) found Japan had the least timely incorporation of economic losses into earnings (i.e., lower earnings timeliness in the "Basu [1997]" sense). Again, until recently many listed firms held their annual shareholder meetings on the same day, thereby inhibiting shareholders from attending more than one meeting (Tokyo Stock Exchange [TSE], 2013; 2015b). These examples indicate Japanese firms may prefer to disclose relatively less information to outsiders. However, as Japanese firms have attracted more foreign investors, they may have decided both to improve their CG practices and to adopt more transparent disclosure policies.

The pursuit of better CG has received increasing prominence. Japan's Listed Company Corporate Governance Committee commenced discussions on the state of CG in December 2002. The outcome of these discussions was a set of CG Principles, released by TSE in March 2004. By the release of these principles, the TSE raised awareness of the benefits of effective CG and encouraged companies to adopt CG practices that are best for them. These Principles were updated in 2009.

We adopt measures of transparency from Beekes *et al.* (2016b) – namely the frequency and timing of disclosures by the firm itself, and the timeliness of share prices (a wider concept, which is defined later) – to examine the relationship between Japanese companies' CG and their transparency to external shareholders. Our data relate to 1,754 Japanese companies and financial years ending between 1 August 2003 and 31 July 2013. We study companies listed in TSE's First Section, which comprises firms with the largest market capitalisation. We find firms whose CG is considered to be better (viz, their CG is rated more highly on Japan's Corporate Governance Evaluation System) make more frequent disclosures and their disclosures are earlier in the year. This is consistent with cross-country evidence in Beekes *et al.* (2016b). We also find firms with better CG have significantly faster price discovery when

the share market judges the news to be good. However, when the news is bad we find no significant difference in the speed of price discovery between better- and weaker-governed firms (i.e., price discovery is equally timely). Taking our findings as a whole, better CG is associated with greater corporate transparency in Japan, although there has been more emphasis on the timely release of good news.

We contribute to the growing literature on the link between CG and the firm's transparency to outsiders in several ways. First, in code and common law countries, Beekes *et al.* (2016b) find a complementary relation between CG quality and disclosures, for both document frequency and the timeliness of document releases.[1] But, given companies' disclosures feed into the body of information that underpins their share prices, it is perhaps surprising Beekes *et al.* (2016b) report better-governed firms do *not* have more timely price discovery in either common or code law countries. This conflicts with three single (common law) country studies (Beekes & Brown, 2006, hereafter BB06; Beekes *et al.*, 2015; Beekes *et al.*, 2016a), which show better-governed firms have more timely price discovery.[2] Given these conflicting results, we study in depth the link between CG and transparency in a single code law country, Japan. While doing so, we improve on the methodology of Beekes *et al.* (2016b) by expanding the models that are fitted to include an independent assessment of the firm's disclosure quality (provided by the Nikkei Corporate Governance Evaluation System). In addition, we refine the measurement of other variables, for example to incorporate the reporting lag (the length of time between the financial year end and the earnings release date).

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[1] La Porta *et al.* (1998) conclude countries with common law origins (e.g., UK and USA) are associated with greater investor protection relative to code law countries (e.g., Japan).

[2] BB06 and Beekes *et al.* (2015) find better-governed Australian firms have *more* timely price discovery; and BB06, Beekes and Brown (2007) and Beekes *et al.* (2016a) report similar findings for two other common law countries, Canada and the USA.

Second, we provide evidence on whether the TSE's CG principles, which aim to promote better CG partly on the grounds that better-governed firms are more transparent, has achieved that outcome. The period covered by our study, 2003 to 2013, contains years in which firms were responding not only to prompting by the TSE but also to a decline in traditional cross-shareholdings, which have been associated with greater information asymmetry and lower disclosure (Jiang & Kim, 2004; Cheung *et al.*, 1999). Further globalisation of capital markets and greater foreign ownership of Japanese companies may have added to pressures on firms to change their disclosure policies (Aguilera *et al.*, 2017).

Third, we use the Nikkei Corporate Governance Evaluation System (CGES) to measure the quality of each firm's CG. The CGES, which is summarised in Appendix A, is comprehensive in its coverage of listed Japanese firms, rating them annually from public information. It considers matters such as the size and composition of the board of directors, incentives offered to directors, and share ownership structures. The CGES encompasses CG characteristics especially significant in Japan, e.g., the level of cross-shareholdings, banking arrangements, and the composition of the board of corporate auditors.

Finally, we provide evidence on corporate behavior that may be important to future policy changes. While better-governed firms have tended to make timelier disclosures when there has been good news, we did not find the same effect for bad news.

In the next section we provide more background. In section 3, we outline the TSE's CG principles. In sections 4 and 5, we explain the data and methods we use. The results are set out and interpreted in section 6, which is followed in section 7 by a summary of additional robustness checks we undertook. Section 8 covers some changes in CG guidance in Japan since the end of our sample period and summarises their implications for studies such as ours. The final section contains our conclusions.

2. Background and Related Studies

2.1 Corporate Governance, and the Frequency and Timeliness of Disclosures

Disclosure practices vary across firms due to differences in their optimal disclosure policies and in the abilities of individual CG structures to enforce those policies (Core, 2001). Full disclosure is not optimal because of the increasing cost of greater disclosure. Apart from that, some managerial discretion inevitably will persist since it, too, is costly to eliminate from the disclosure decision.

Economic theory presumes corporate choices such as CG structure and disclosure policy will be made in the expectation of maximising firm value. Depending on the environment, this theory may be consistent with either a complementary or a substitution relation between the quality of a firm's CG and its disclosure policies. A substitution relation is consistent with the firm's managers, who possess private information valuable to them, voluntarily agreeing to introduce costly CG practices that reduce the value of their private information but compensate them in other ways. A complementary relation, on the other hand, is typically envisaged by market regulators. They look beyond the interests of the decisionmakers of each listed company, urging improvements to CG with outcomes that include more timely, accurate and comprehensive disclosures. Principle 4 of the TSE CG principles are predicated on this complementary view.

Firms that are better-governed are more likely to comply with the TSE's Principles and Guidelines, implying a complementary relationship will exist. We may also expect senior managers to seek to enhance their human capital by developing a reputation for credible and timely disclosures to shareholders, thereby strengthening that relationship. However, given the

expectation of lifetime employment in Japan (Buchanan, 2007), Japanese managers may be less concerned than their counterparts in other countries with increasing their value in the managerial labour market. Similarly, while equity ownership by managers is intended to align the interests of the owners and the managers (Jensen & Meckling, 1976), the incentive has probably been weaker for Japanese directors because of their historically smaller shareholdings and firms' limited reliance on performance based-pay.[3] Again, managers in Japan may assign less risk to future remuneration if they fail to disclose information, compared to managers in the USA.[4] Foreign ownership in Japan has increased from less than 5% in the early 1990s to 32% in 2015, making foreign owners the largest category of investor in Japan (Aguilera *et al.*, 2017). The increasing presence of foreign shareholders may have caused Japanese firms to see benefit in becoming more transparent.

We examine the frequency and timing of documents filed by firms with the TSE. Firms that are more transparent are expected to release value-relevant information as it becomes available, rather than to consolidate separate documents into a single document that is lodged later. That is, more transparent firms will lodge more documents.

But the timeliness of each disclosure is also important if it is to be useful to investors. Various factors may influence the timing of a disclosure. For example, managers who hold shares or options and wish to raise cash may intervene in the timing of a materially price-sensitive disclosure. However, Japanese managers' relatively small share holdings (Kaplan, 1994) and the historically low usage of stock options (Basu *et al.*, 2007; TSE, 2015b) may

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[3] Many Japanese firms do not offer stock options as they consider them to be short-term oriented (TSE, 2013). In 2006, 30.9% of TSE First-Section firms used stock options (TSE, 2007) and their usage remained at a comparable level throughout our sample period. We are unable to comment specifically on the percentage of directors' remuneration in the form of stock options due to a lack of data.
[4] The Financial Instruments and Exchange Act (FIEA), which applies to all Japanese companies for fiscal years beginning on or after April 2008, contains penalties for failure to disclose required information (Kawaguchi, 2009; Wisenbaker, 2010).

provide little incentive to intervene. Even if managers do have incentives for opportunistic behavior, their opportunism may be constrained by closer monitoring, such as the involvement of directors in the disclosure process. There is evidence consistent with that proposition. Beekes *et al.* (2016b) find in code law countries firms with better CG are more timely in releasing documents.

When we assess the timeliness of disclosures, we use the share market return associated with each disclosure to measure its price-sensitivity, or materiality. In order to compare firms according to the speed, or timeliness, with which they disclose material information we must choose a uniform time period. Like Beekes *et al.* (2016b) we define the measurement period to be the year leading up to the day on which the firm's annual results are announced. Firms with more timely disclosure policies will tend to release a greater proportion of value-relevant documents earlier in the year. We then test whether CG quality is associated with the timeliness of material disclosures.

2.2 Corporate Governance and the Disclosure of Good News versus Bad News

The TSE's CG Principle 4 emphasises the importance of disclosing "*all* material matters" [TSE, 2004 emphasis added]. One implication is that no material matter should be withheld or delayed, regardless of its favourability (i.e., whether it is good or bad news). However, prior evidence typically indicates that the timing of a disclosure does depend upon whether it conveys good or bad news.

In the case of good news (news that signals better than expected performance to outside investors) Kothari *et al.* (2009) find managers of U.S. firms tend to accelerate disclosures; Japanese managers may behave in a similar fashion. Japan rates highly on Hofstede's (1983) Masculinity dimension of culture, which emphasises recognition and advancement, potentially leading managers to focus on announcing good performance. The Masculinity dimension may

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have special significance given on average only 8% of corporate officers in Japan are female (TSE, 2017). Consistent with this view, managers in Japan tend to be optimistic in their earnings forecasts (Cho *et al.*, 2011), as are managers in other countries too.

Timely disclosures of bad news may be more important where there is greater risk of litigation for non-disclosure (Sengupta, 2004), or where managers wish to protect themselves against possible future litigation (Skinner, 1994). However, the Ball *et al.* (2000) finding of low earnings timeliness in Japan may have been due to relatively little exposure to litigation risk (Ginsburg & Hoetker, 2006). Consequently managers may have considered the cost of delaying the disclosure of bad news to have been relatively small. But the trend towards smaller cross-shareholdings and larger foreign indirect investment, which we have already noted, may have brought further pressure on firms to make more timely disclosures of bad news, consistent with Aguilera *et al.* (2017).

To summarise, although we expect good news is generally more timely than bad, it is an open question whether better CG would mitigate the tendency of managers to focus on timely release of good news.

2.3 Corporate Governance and the Timeliness of Price Discovery

The next set of tests examines the timeliness, or average speed, of (longer-term) price discovery, namely how quickly value-relevant information is incorporated into the firm's share price in the year leading up to its annual earnings announcement. This measure of the firm's equity market transparency owes its origin to Ball and Brown (1968) and was introduced into the CG literature by BB06. In line with Fama's semi-strong form of the Efficient Market Hypothesis, it assumes investors efficiently process value-relevant information as it becomes available to them, so that price movements can be used to proxy for the flow of information from all sources (Fama, 1970). While the usage of share returns implies a wider notion of

transparency than measures related directly to disclosures by the firm (which BB06 also used), we note the two approaches are not unrelated. The connection between disclosures and price movements should be strengthened by the fact that the TSE expects firms to disclose price-sensitive information publicly in a timely and unbiased manner, and not to leak it selectively to outside parties.

Prior evidence does not resolve the question of whether CG has a positive or negative association with the firm's equity market transparency, when the latter is proxied by the speed of price discovery. Contrasting results raise the question of whether studying an individual code law country can lead to the opposite conclusion to that reported for a collection of code law countries by Beekes *et al.* (2016b). We answer this question with data for Japan, extending our answer to two settings: when market returns indicate the day's news is good, and separately for when it is bad.

3. The TSE Principles of Corporate Governance

Following the adoption in various countries of CG codes, statements of best practice, or minimum required standards, in March 2004 the TSE released a report entitled "Principles of CG for Listed Companies". The report outlines five basic principles, including the rights of shareholders (Principle 1), disclosure and transparency (Principle 4), and the responsibilities of boards of directors, auditors, boards of corporate auditors, and other relevant groups (Principle 5).

The principles, summarised in Appendix A, were expected to provide a basis for Japanese companies to compare their performance with each other and did not seek to impose the same CG structure on all companies. This freedom of choice is illustrated by the fact that, from 2003, Japanese companies could choose to follow either the traditional two-tier CG structure with a

board of directors plus a board of corporate auditors, or a structure embodying a board of directors plus three board committees (see Appendix B).

In either CG system (board of directors plus a board of corporate auditors, or board of directors plus three board committees), the board of directors is elected at a general meeting of shareholders. The board of directors is the primary decision-making body in the firm and is responsible for monitoring directors' performance. In the corporate auditor system, the board of directors comprises representative and executive directors. The board appoints executive directors from among those who have been nominated to directorships; it further appoints a number of 'representative directors' to represent the company officially. The monitoring and supervision of day-to-day activities is the responsibility of the board of corporate auditors, who also are elected at a meeting of the shareholders. The board of corporate auditors does not replace the requirement for an external financial auditor. However, there is no requirement to appoint outside directors in this system.

In a company with the three committees system, the roles of monitoring and execution of duties are clearly separated: the board appoints a representative executive officer (the CEO), and the board of directors fulfils a supervisory role. The board of directors is assisted by three board committees (audit, nomination and compensation).[5] Each board committee is expected to have at least three members, with a majority of the committee members being outside directors (TSE, 2004). In this system, the nomination committee provides the agenda for the shareholders' meeting with regard to the appointment or dismissal of directors, and the audit committee monitors the performance of directors and executives.

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[5] Although the company with three committees system has the virtue of being more easily understood by foreign shareholders, it has not been popular in Japan: only 2.5% of TSE First Section companies were using it in 2014. Chizema & Shinozawa (2012) find that more experienced firms with greater foreign ownership are more likely to adopt this system. One reason for its lack of popularity is skepticism about the ability of outside directors to evaluate the performance of inside directors (Itami, 2005).

In December 2009 the TSE issued a revised set of CG principles. They focussed on the need for effective monitoring of management by the auditors or the board of corporate auditors. In particular, the use of "highly independent outside auditors" with "an in-depth knowledge of finance/accounting" was recommended (TSE, 2009: 11). This was in response to criticism (e.g., Buchanan, 2007) that boards of corporate auditors were not adequately prepared to perform an effective monitoring role. Other changes to CG guidelines made after the end of our sample period are described in section 8.

4. Data

We obtained firm-level data for non-financial listed Japanese firms with financial years ending between 1 August 2003 and 31 July 2013. We restricted the sample to firms in the First Section of the TSE, which includes the largest companies with CG data. Financial and industrial data were collected from a variety of sources (detailed below) then matched to the CG data, yielding a final sample of 14,116 firm-year observations on 1,754 unique firms.[6] In the remainder of this section we explain how we constructed the CG and other key variables.

4.1 Measuring Firm-Level Corporate Governance.

We use CGES data to measure firm-level CG on an annual basis. CGES rates CG on information contained in public disclosures. Ratings are reported as of the beginning of August each year. We assume CG data reported as of August of year *t* relate to financial years ending in the previous 12 months (i.e., between 1 August of year *t*-1 and 31 July of year *t*).

Firm-level CG characteristics (e.g., the absolute number of board members [*BRD_NUM*]) are rated on a scale of '1' (low) to '5' (high). Appendix Table A1 details the CGES scoring

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[6] The number of observations by CGES year (2004–2013) is as follows: 1134, 1323, 1402, 1455, 1484, 1489, 1466, 1447, 1453 and 1463.

method for each separate characteristic. Scores for the characteristics are aggregated into a sub-index, using the weights recommended by CGES.[7] Three sub-indexes (*Board Organization*, *Board Behavior* and *Ownership* [Ownership and Capital Structure]) are constructed this way; their purposes are explained below. Finally, for each sub-index we replace the firms' weighted average scores with their decile values that year, where a higher score indicates "better" CG.

Board Organization assesses the board's ability both to monitor managers' actions and to act in the shareholders' best interests. According to CGES, firms with "better" *Board Organization* have: (i) a board of directors with 10 or fewer members; (ii) at least 15 per cent outside (independent) directors on the board; and (iii) an executive officer system.[8]

Board Behavior assesses the degree of alignment between shareholders' interests and directors' incentives. Firms with "better" *Board Behavior* have: (i) directors' share ownership in the top quintile of the distribution for First Section TSE-listed firms; and (ii) stock option plans in which directors may participate.

Ownership assesses the makeup of the firm's ownership and the incentives owners have to monitor activities, based on seven characteristics (see Appendix Table A1, Panel C). Firms characterised by higher proportions of (i) institutional and (ii) foreign ownership are scored more highly. A third *Ownership* characteristic proxies for the extent of a company's free float.

In our main analysis, we use an overall index of CG quality (*CG Composite*), which is defined as the sum of three sub-indexes of CG: (i) *Board Organization*, (ii) *Board Behavior*, and (iii) *Ownership*.[9] *CG Composite* is used because any one sub-index may not be broad

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[7] CGES documentation discloses the weights but not the reasons for them. We adopt the recommended weightings in our main analysis and use equal weightings in robustness tests. Some characteristics are reverse-coded for uniformity.

[8] Firms following the corporate auditors or company with three committees system may appoint an executive officer. Appointing an executive officer clarifies the role of the board of directors, which has a monitoring and supervisory role, and that of the executive officer, who is the primary executive decision-maker. Uchida (2011) finds that reductions to board size resulting from the implementation of the executive officer system often did not change the size of the management team (executive officers plus directors).

[9] In sensitivity analysis, we consider two additional CG sub-indexes from the CGES: *Main Bank* (available for 2006 onwards) and *Information Disclosure*. *Main Bank* assesses CG quality in terms of the existence and level of

enough to capture the underlying relationship between CG and transparency. An overall index is consistent with other papers in the area (e.g., Aggarwal *et al.*, 2011; Beekes *et al.*, 2016b).

4.2 Other Data Sources

We source company announcements (documents) from the Timely Disclosure Network (TD-Net).[10] Firms' market values are sourced from the CGES BASE files; leverage (ratio of total liabilities to total assets) is from the CGES INDEX files; daily share prices and returns are sourced from Financial Data Solutions; and the date of the annual earnings announcement comes from one of TD-Net, Bloomberg, I/B/E/S, Nikkei's financial database (NEEDS) and Worldscope.[11] Other firm-specific data are sourced from the Nomura Research Institute. We were unable to obtain Global Industry Classification Standard data for all companies so we resorted to Nikkei industry classifications. Because these classifications are too detailed for our purposes, we grouped the 36 Nikkei industry classifications into 12 sectors, designated "industry groups".[12]

5. Research Method

Our measures of corporate transparency reflect corporate disclosures to the TSE (their frequency and timeliness, defined later) and the speed (timeliness) of price discovery. They are

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the relationship the firm has with main banks (both in terms of firm borrowings and shareholdings). *Information Disclosure* assesses CG quality in terms of characteristics of disclosures by the firm. These sub-indexes are constructed in a comparable way to the three sub-indexes already discussed.

[10] TD-NET captures both mandatory and voluntary disclosures to the TSE. All documents are assigned a three-digit classification code by the TSE. If a document is assigned more than one classification code, we still treat it as a single disclosure.

[11] The identification of earnings announcement dates was a complex process in which we triangulated dates from the five sources. Where differences in the announcement dates were identified, we compared the current and adjacent financial year end dates and examined the respective reporting lags. We then recorded the earliest plausible announcement date.

[12] Further information is available from the corresponding author.

based upon similar measures in BB06, Beekes and Brown (2007) and Beekes *et al.* (2016b). Each model expresses a measure of a firm's transparency as a function of its CG quality plus a set of control variables. The model is then estimated by pooled Ordinary Least Squares (OLS) methods, with standard errors clustered by firm. Equation (1) depicts our models in generic form:

$$DepVar_{it} = \beta_0 + \beta_1 CG_{it} + \beta_2 Good\ News_{it} + \beta_3 Good\ News_{it} \times CG_{it} + \beta_4 Size_{it-1}$$

$$+ \beta_5 Leverage_{it-1} + \beta_6 Volatility_{it} + \gamma\ Industry_i + \delta Year_t + \varepsilon_{it} \quad (1)$$

where *DepVar* is the measure of transparency (disclosure or timeliness, as detailed below); *CG* is Corporate Governance (described in section 4.1); *Good News* is a dummy variable, equal to one when the firm's share price outperforms the market index over the year, and zero otherwise; *Good News* x *CG* is an interaction term; *Size* is the natural log of the firm's market value of equity, measured at the end of the previous financial year; *Leverage* is the ratio of total liabilities to total assets, also measured at the end of the previous financial year; *Industry* is a vector of sector indicator variables; *Year* is a vector of year indicator variables; *i* and *t* are firm and year subscripts, respectively; and ε_{it} is the error term. When the dependent variable is based on disclosure documents, *Volatility* is the standard deviation of daily unadjusted log returns in the 90 days immediately prior to the period over which the dependent variable is computed. When transparency is measured by the timeliness of daily prices, *Volatility* is the standard deviation of daily market-adjusted log returns over the timeliness measurement period.

The primary coefficients of interest in equation (1) are β_1, β_2 and β_3. The coefficient on CG (β_1) captures the marginal influence of better CG on the dependent variable; the coefficient on *Good News* (β_2) captures the marginal effect of good news (relative to bad news) for the year; and the coefficient on the interaction term, *Good News* x *CG* (β_3), captures the marginal

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effect of better CG when the firm has good news for the year. We use pooled OLS rather than fixed effects panel data methods due to the lack of variation in some aspects of CG across our sample period.[13]

5.1 Dependent Variables: Frequency and Timeliness of Disclosures

The measures relating to the number of documents and their timeliness are calculated over 365 calendar days ending on the firm's annual earnings release date, denoted as day 0, as in Beekes *et al.* (2016b). The frequency of corporate disclosures is the number of documents filed with the TSE over the year. The dependent variable is the natural log of the document count plus one (*Ldocs)*.

Tdocs All measures the timeliness of all price-sensitive ("material") documents: how quickly value-relevant information is released to the stock market over the 365 days ending on day 0. To measure *Tdocs All*, first we identify all days on which at least one document was released to the TSE over the year. Next, for each of these "document-days", we calculate the share's unadjusted log return, r_t, over the announcement period. The announcement period is defined as the day of the document release plus the following trading day (to match documents released after market closing time with their price effects on the first available trading day).[14] We assign a zero return to other days in the year when no documents are released. Next, we construct a cumulative time series of returns, CD_t^A, for the 365 days ending on day 0, as follows: $CD_t^A = CD_{t-1}^A + |r_t|$ (the initial value of the time series, CD_{-365}^A, is set to zero.) *Tdocs All* is calculated from this time-series, as in equation (2):

$$Tdocs\ All = ((\textstyle\sum_{t=-365}^{t=-1}(CD_0^A - CD_t^A)/CD_0^A) - 0.5)/365 \qquad (2)$$

where the constant, -0.5/365, is an adjustment to center the flow of documents over the course of the day. Smaller values of *Tdocs All* are associated with earlier (i.e., more timely) value-relevant documents being released to the TSE. The intuition behind this measure is that more transparent firms release their value-relevant documents earlier in the year.

To measure the timeliness of the release of good and bad news documents separately, we classify each document released during the timeliness measurement period as good or bad news based upon the sign of the share's log return in its announcement period. Then we construct a cumulative time series of the market-adjusted log returns associated with all good news announcements: $CD_t^G = CD_{t-1}^G + r_t$ from day -365 to day 0, $r_t > 0$ (otherwise $r_t = 0$). The initial value in the time series, CD_{t-365}^G, is set to zero. This time series is then summed over all firms with data for that year and used to calculate *Tdocs Good,* as in equation (3):

$$Tdocs\ Good = ((\textstyle\sum_{t=-365}^{t=-1}(CD_0^G - CD_t^G)/CD_0^G) - 0.5)/365 \qquad (3)$$

We use the same procedure to measure the timeliness of bad news documents, *Tdocs Bad*. Smaller values of *Tdocs Good* and *Tdocs Bad* indicate earlier (more timely) release of documents that are judged by the market to be good and bad news respectively.

5.2 Dependent Variables: Timeliness of Prices

To measure the timeliness of price discovery we adopt metrics in BB06 and Beekes *et al.* (2016b). The first metric, *T*, tracks prices over 365 days ending 14 calendar days after the annual earnings announcement, which is expected to be enough time for prices to settle following the announcement. *T* is measured as in equation (4):

$$T = ((\textstyle\sum_{t=-365}^{t=-1}|\log(P_0) - \log(P_t)|) - 0.5)/365 \qquad (4)$$

where P_t is the daily market-adjusted share price.

The intuition behind this measure is as follows. If a particular firm releases value-relevant information more quickly and this information is incorporated rapidly into prices, then T will be smaller. T focuses upon pricing outcomes and does not consider the mechanism by which price discovery occurs. BB06 acknowledge that T may be biased by idiosyncratic share price volatility over the year and proposed a "deflated" alternative, $TDef$, formed by deflating T by one plus the absolute return over the period for which timeliness is calculated. Results for both BB06 measures, T and $TDef$, are reported in the tables.

Outperformance on the share market for the year is unknown until the end of the (event) year, whereas daily share returns provide a much shorter and more precise evaluation period. To explore the progressive contributions of good and bad news, we construct additional dependent variables. First, a market-adjusted daily log return series is created, $(r_t^*, t = s, \dots, 0)$, where s is the starting day of the series. Then, for the timeliness of price discovery of good news, $TGood$, a time-series of cumulative good news returns in created, C_t^G, by setting $C_{-365}^G = 0$ and then cumulating the daily market-adjusted log return series $C_t^G = C_{t-1}^G + r_t^G$ from day -364 to day 0, where $r_t^G = r_t^*$ if $r_t^* > 0$ and $r_t^G = 0$ otherwise.[15] $TGood$ is calculated from this time-series as in equation (5):

$$TGood = ((\textstyle\sum_{t=-365}^{t=-1}(C_0^G - C_t^G)/C_0^G) - 0.5)/365 \qquad (5)$$

The same method is used to calculate the timeliness of bad news ($TBad$) from the time-series of negative returns.

As an alternative to BB06's T and $TDef,$ we also calculate the timeliness of prices taking into account both good and bad news, which we label $TAll$. $TAll$ is the weighted sum of $TGood$

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[15] Beekes *et al.* (2016b) use a filter (which they define as the returns in the third quartile of the distribution of the absolute value of the share's raw daily log returns observed in the timeliness window) to determine whether there is good or bad news. While we do not use filtered returns in our primary measure of *TGood*, we investigate measures of the timeliness of prices using filtered returns in sensitivity analysis, discussed later.

and *TBad* where the weights sum to one, and are $(C_0^G/[C_0^G + C_0^B])$ and $(C_0^B/[C_0^G + C_0^B])$ respectively. C_t^G and C_t^B are the unsigned good and bad news cumulative values at the end of day 0. As before, smaller values of *TGood*, *TBad* and *TAll* reflect more timely price discovery.

We acknowledge our measures have limitations. For example, *Ldocs* reflects the number but not the timing or the price-sensitivity of disclosures, while BB06's *T* can be biased by differences in daily share price volatility. To address these and other issues, we include measures of the timeliness of disclosures and of share price changes in good and bad times, and our multivariate models control for *Volatility*. In sensitivity analysis, we consider a number of alternatives, including an independently-sourced measure of disclosure transparency.

5.3 Explanatory Variables

Variables other than CG in equation (1) control for firm-specific factors which may affect the firm's disclosure and timeliness. *Good News* captures the positive association between the firm's performance and its disclosures (Lang & Lundholm, 1993; Lev & Penman, 1990). It may also capture the impact of a cultural preference in Japan for recognition and advancement. If this cultural dimension accurately describes Japanese managers, good news may well be accompanied by greater and more timely disclosures.

Size controls for the positive association between the extent of disclosure and firm size (Lang & Lundholm, 1993). *Leverage* and *Volatility* control for risk, which may influence investors' disclosure demands (Taylor *et al.*, 2012); for example, creditors and lenders may request additional and more timely information when the firm is riskier. The regressions also include fixed effects by *Industry* to allow for the fact that firms in some sectors (e.g., those that are research intensive) are likely to be less transparent because of proprietary costs of disclosure are greater (Verrecchia, 1983). Similarly, because the document frequency and

returns-based timeliness measures have noticeably higher means in some years, especially around 2008, the regressions include fixed effects by year. Note that the models investigating good news and bad news timeliness (for both documents and prices) exclude the *Good News* control variable, which reflects whether the firm outperformed the share market over the whole year.

6. Results

6.1 Descriptive Statistics and Bivariate Correlations

Insert Table 1 about here

Table 1 contains descriptive statistics. The number of documents (*Docs*) released by a sample firm ranges from 2 to 122 annually. The median number of documents amounts to about 1.2 documents per month, which is substantially less than the median 4.1 documents per month reported in the cross-country study by Beekes *et al.* (2016b).

The timeliness of documents (*Tdocs All*) has a mean (and median) of 0.543, compared with an average of 0.52 (median 0.51) in Beekes *et al.* (2016b). Thus firms in Japan are slower to release price-sensitive documents to the share market. Mean values for the timeliness of document disclosures for good and bad news (*Tdocs Good* and *Tdocs Bad*) are comparable to *Tdocs All*. Fewer and less timely disclosures may have impacted on the timeliness of share prices and the efficiency of the Japanese share market generally, as at any point in time there may be less information in the market place about the firm's prospects and current

performance. We say "may" because the extent to which competing information intermediaries have taken up the slack in corporate disclosures is as yet unknown.

BB06's measure of timeliness of prices, (*T*), ranges between 0.011 and 1.999, and from 0.011 to 0.646 when *T* is deflated by one plus the share's absolute rate of return (*TDef*). The average timeliness, *T* (*TDef*), in Japan is 0.156 (0.118), compared with 0.19 (0.13) in Beekes *et al.* (2016b); the sample medians indicate similar differences. Apparently, then, the shares of Japanese firms are typically priced in a more timely fashion when compared with a cross-section of more than 20 other countries, which may be unsurprising given the comparative size and level of development of the Japanese share market and its supporting institutions. For the timeliness of good, bad and all news in prices (*TGood, TBad* and *TAll*), we find averages of 0.504, 0.505 and 0.504 respectively, which is less than the average of 0.52 reported for all three timeliness measures in Beekes *et al.* (2016b); the sample medians indicate similar differences.

Our main analysis focuses upon *CG Composite* and discussion here is limited to this CG measure. The mean value of *CG Composite* is 16.976.[16] Firms' market capitalisation (*Size*) ranges from ¥781 million to ¥24.4 trillion. Leverage averages 51 per cent. About 60% of the observations are for company-years where the individual company out-performed the market (*Good news* mean = 0.610), implying the ratio of share market winners to losers was 3 to 2.

Insert Table 2 about here

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[16] The services sector has the highest overall CG (*CG Composite* average = 18.8, not tabulated). The construction sector has the lowest overall CG (*CG Composite* average = 13.4).

Bivariate correlations are shown in Table 2. *CG Composite* is positively correlated with the number of documents disclosed and their logs (*Docs* and *Ldocs*) and negatively correlated with measures of their timeliness (not tabulated due to differing sample sizes). These correlations are consistent with better-governed firms making a greater number of, and more timely, disclosures; and they point to a complementary relationship between the quality of the firm's CG and its disclosure policies.

Table 2 shows *CG Composite* is positively correlated with measures of the timeliness of prices where correlations are statistically significant. However, the correlations are small, pointing to a weak substitution relationship between CG and market transparency in which value-relevant information is incorporated into share prices on a less timely basis for better-governed firms. *CG Composite* is positively correlated with firm size (*Size*) and negatively with leverage (*Leverage*).

6.2 CG and the Frequency and Timeliness of Disclosures – Multivariate Analysis

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Insert Table 3 about here

Table 3 shows the results from fitting models of the relationship between the firm's CG and its disclosures, while controlling for share market performance, firm size, leverage, volatility, and year and industry fixed effects. To assist interpretation, the coefficients reported in Tables 3, 4 and 5 relate to explanatory variables divided by their standard deviations. Estimates of fixed effects are omitted for brevity.

Columns (1) and (2) contain estimates for the quantity of disclosures (*Ldocs*). A complementary relation exists between CG and the number of disclosure documents, reflected

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in the positive and significant coefficient on *CG Composite* (in both columns). This is consistent with previous evidence (BB06; Beekes *et al.*, 2016b), as are the positive coefficients on *Size* and *Leverage*. However, while we may expect firms to increase the number of disclosures when they outperform the market over the year—perhaps the more so given Japan's relative high ranking on Hofstede's Masculinity cultural dimension—we do not find this to be so: the coefficient on *Good News* is negative (again, in both columns). Column (2) includes the interaction term, *Good News* x *CG Composite*. Its coefficient is positive indicating that better-governed firms release more documents in years when their news over the whole year is good.

The results for the timeliness with which price-sensitive documents are released are shown in columns (3) to (6). Recall that smaller values of timeliness reflect more timely (earlier) disclosures. We first focus on the timeliness of all price-sensitive documents, *Tdocs All,* shown in columns (3) and (4). We observe a negative and significant coefficient on *CG Composite* in column (3), which means better-governed firms make more timely disclosures of all news. Thus we find for this model a complementary relation between CG and the timeliness of disclosures, consistent with the results for code-law countries reported in Beekes *et al.* (2016b). The coefficient on *Good News* is positive and significant in column (3), which indicates firms that outperform the market over the full year are less timely in their progressive disclosures of price-sensitive information over the year.

In column (4) we expand on the model in column (3) by allowing for the interaction of *Good News* with *CG Composite*. We observe a negative and significant coefficient on *Good News* x *CG Composite*, which indicates better-governed firms make more timely disclosures during the year when their shares outperform the market over the full year, compared with firms that are not as well-governed. However, the coefficient on *CG Composite* is statistically insignificant, implying negligible difference in the timeliness of price-sensitive disclosures

between firms with different levels of CG in years when they underperform the market. The coefficient on *Good News* is positive, statistically significant and has the same value as its counterpart in column (3), once again implying material disclosures by firms generally are less timely in years when they outperform the market. Larger and more volatile firms are also associated with more timely disclosures but firms with greater leverage are not.

In columns (5) and (6) we report results for measures of the timeliness of documents which separately focus on documents released on days when the firm's share price rose (*Tdocs Good*) and when it fell (*Tdocs Bad*). Table 1 indicates negligible difference in the average timeliness of price-sensitive disclosures when the share price in the documents' announcement periods went up relative to when it went down (unconditional means are *Tdocs Good* = 0.539 and *Tdocs Bad* = 0.538). For better-governed firms, Table 3 reveals an imbalance in disclosure timeliness: the coefficient on *CG Composite* is negative and significant in the *Tdocs Good* model (column 5), but it is not significantly different from zero in the *Tdocs Bad* model (column 6). Consistent with the results in column (4) and with Beekes *et al.* (2016b), better-governed firms make more timely disclosures when they are determined by the market to be good news. However, there is no significant influence of CG on the timeliness of price-sensitive document releases when they contain bad news.

6.3 Timeliness of Prices – Multivariate Analysis

Insert Table 4 about here

The results for the timeliness of price discovery are reported in Table 4. In columns (1) and (3) we report results for the *T* and *TDef* models for the composite measure of CG, excluding

the interaction of *Good News* and CG. Although the coefficient on *CG Composite* is not statistically significant in column (1), it is nonetheless positive and of similar size to its value in column (3), where it is statistically significant. Thus, firms with CG more highly rated by CGES are less transparent on the BB06 measures (i.e., better CG substitutes for the firm's transparency). The coefficient on *Good News* is positive and significant, which implies the firm's shares are priced less efficiently when its share returns exceed the market for that year. When we include the interaction term (*Good News* x *CG Composite*; see columns 2 and 4), we find its coefficient is negative in column 2 and significantly so in column 4. The implication is that price discovery is more timely for better-governed firms when they outperform the market that year, relative to when they do not.

In columns (5) and (6) we report the results for the timeliness of all news in prices (*TAll*). The coefficient on *CG Composite* is not significant in column (5). However, when we allow for the interaction between *Good News* and *CG Composite* (column 6), we find the coefficients of interest are in line with their counterparts in column (4).

When we estimate separately the timeliness of good and bad news in prices (columns 7 and 8), we find differences between firms depending on the quality of their CG. Table 1 indicates comparable levels of timeliness for good and bad news (unconditional means are *TGood* = 0.504 and *TBad* = 0.505). However, for better-governed firms, we find evidence of imbalance in the timeliness of good and bad news. The negative and significant coefficient on *CG Composite* in the *TGood* model (column 7) indicates good news is reflected more quickly in the share prices of better-governed firms. However, the coefficient on *CG Composite* is not statistically significant in the *TBad* model (column 8). In additional analysis (not tabulated), we fitted a model with *Imbalance*, defined (for each firm-year) as the timeliness of good news minus the timeliness of bad news, as the dependent variable. We found better CG is associated

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with greater imbalance in the timeliness of good and bad news, with good news being reflected on a more timely basis (*CG Composite coeff.* = -0.0012, *p* = 0.05).

6.4 Discussion

In this section we summarise the main results. First, we find a complementary association between CG and disclosure frequency, which suggests better CG is accompanied by a greater level of corporate disclosure. Second, better-governed firms make more timely disclosures (which are integrated into share prices) but apparently only when the news is good. For weaker-governed firms we find fewer, and less timely, disclosures accompanied by less timely prices when there is overall good news.

The asymmetric focus on good rather than bad news in better-governed firms is intriguing. It indicates CG structures rated highly by CGES may not constrain managerial enthusiasm and perhaps opportunism. One potential explanation for our result is that monitoring by outside directors is less effective when the board of directors is dominated by insiders (Buchanan *et al.*, 2014). Also, outside directors may lack sufficient training or experience to carry out their task effectively. Desender *et al.* (2016) suggest the quality of monitoring provided by independent directors depends upon the level of foreign ownership reaching a critical mass. It could be argued that foreign shareholdings in Japanese firms were too small, or foreign shareholders had insufficient influence, to push for major changes in company disclosure practices during our sample period (Buchanan *et al.*, 2014). It could also indicate that firms with close ownership structures are more risk averse and conservative in their disclosures. This may explain why firms with more traditional Japanese ownership structures (rated as weaker CG in the CGES) have tended to have fewer and less timely disclosures when they are performing well overall.

Our results suggest the TSE's attempts to improve CG structures have not been entirely effective at improving disclosure practices. The lack of any impact of CG on timely disclosures of bad news may be of concern.

7. Further Results and Robustness Testing

7.1. Further Results

To provide a more detailed understanding of the relation between CG and disclosure, we re-estimated our results including *Board Organization*, *Board Behavior* and *Ownership* as separate explanatory variables in place of their aggregate, *CG Composite*.[17] In the interests of brevity, Table 5 is limited to estimates for the CG sub-indexes, the *Good News* variable, and their interactions. We focus upon differences between the results in Table 5 and those previously reported in section 6.

Insert Table 5 about here

The results for the frequency of disclosures and their timeliness are shown in panel A. Column (2) contains estimates for the *Ldocs* model. We observe a positive and significant coefficient on the interaction, *Good News* x *Board Behavior.* When there is overall good news for the year, firms tend to have made less frequent disclosures (coefficient of the *Good News* dummy variable is -0.0234). However, this tendency is less apparent among firms with better *Board Behavior* since the coefficient on the interaction term is positive. In column (4) we report

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[17] All of the correlations are relatively low between the sub-indexes of CG; the highest is between *Board Behavior* and *Ownership*, with a correlation coefficient of 0.22 (see Table 2). This would suggest the sub-indexes capture different aspects of CG.

the results for the *Tdocs All* model. *Ownership* has a positive and significant coefficient indicating firms with better *Ownership* make price-sensitive disclosures more slowly over the year. The coefficient on the interaction of *Good News* with *Ownership* is negative although it is not significant at the 5% level. Columns (5) and (6) contain estimates for the timeliness of good and bad news respectively. While *Board Organization* has no statistically significant effect, *Board Behavior* has negative and significant coefficients in both columns indicating that, according to this measure, better-governed firms make more timely disclosures. Also, better *Board Behavior* apparently has a greater influence on the timeliness of good news documents (*coeff.* = -0.0061) than on the timeliness of bad news documents (*coeff.* = -0.0037). *Ownership,* on the other hand, has a positive and significant coefficient in column (6), implying better *Ownership* structures are associated with less timely bad news disclosures.

The results for the timeliness of prices models are shown in panel B. There is no significant marginal association between *Board Organization* and the timeliness of prices, irrespective of the measure of timeliness used. This is consistent with results from Bauer *et al.* (2008) who find board accountability (measured with data from Governance Metrics International) has no significant influence on share performance in Japan. Columns (1) to (4) contain estimates for the two BB06 measures of timeliness, *T* and *TDef*. For both measures, *Board Behavior* has a positive coefficient and *Ownership* has a negative coefficient (significant in columns 1 and 2), suggesting *Board Behavior* substitutes for the firm's transparency while *Ownership* complements it. In column (2)*,* we report results for the *T* model including the interactions between *Good News* and measures of CG. Interestingly, the coefficients on the interaction terms are not significant in this model. In the corresponding *TDef* model (column 4), the positive coefficient on *Board Behavior* indicates less timely prices for firms with better *Board Behavior*. However, the coefficient on the interaction of *Good News* with *Board Behavior* is

negative, suggesting firms with better *Board Behavior* are associated with more timely price discovery when their news for the year is good rather than bad.

Columns (5) and (6) contain estimates for *TAll*. The CG measures are not significant in column (5). In contrast, the coefficient on *Ownership* is positive and significant in column (6), implying better *Ownership* is associated with less timely prices. However, the coefficient on the interaction of *Good News* with *Ownership* is negative and significant, suggesting firms with better *Ownership* are associated with more timely price discovery when their overall news for the year is good. Columns (7) and (8) contain separate estimates for the time-series of good and bad news. *Board Behavior* has a negative and significant coefficient in the *TGood* model but a positive and significant coefficient in the *TBad* model. This implies better *Board Behavior* is associated with faster price discovery for good news, but slower price discovery for bad news. *Ownership* is associated with faster price discovery for bad news, but it has no obvious association with the timeliness of good news.

From this analysis we conclude the size and composition of the board of directors and its committees influences disclosure policies: better board structures (as proxied by a higher rating on *Board Organization)* have a complementary association with the frequency of disclosures and their timeliness. Greater alignment of interests between managers and shareholders, as proxied by a higher rating on *Board Behavior*, is also accompanied by more frequent disclosures and more timely releases of documents, particularly when the news is good. There is asymmetry in the timeliness of prices for firms with better *Board Behavior*: bad news appears to be delayed relative to good news. Managers with more share-based compensation may have stronger incentives to release good rather than bad news, which is then reflected in daily share returns. Firms with greater external share ownership (as proxied by a higher rating on *Ownership*) make more frequent disclosures, but their disclosure of documents conveying bad

news is less timely. Despite this pattern, shares are priced more efficiently for bad news when there is greater external ownership. Thus, it may be the case that the absence of bad news will lead to a decline in share prices anyway on the suspicion that bad news has been withheld.

7.2 Robustness Testing

We conducted a range of additional analyses to establish the robustness of our main results. We summarise the tests here; the details are available from the corresponding author. First, we investigated the firm's choice of system: either the board of corporate auditors or the company with three committees. We did not analyse firms following the company with three committees system as a separate sub-sample because there are too few of them (2% of the sample). Instead, we excluded them from the estimation sample and re-fitted the models. Because of the very high overlap of the samples our conclusions were unaffected. Next, to control for main bank relationships, we collected additional CGES data on the CG sub-index, *Main Bank*.[18] Including *Main Bank* as a separate explanatory variable in our models had little effect: *Main Bank* was not statistically significant, perhaps because of the reduced influence of the main bank in Japan in more recent years (Yoshikawa & McGuire, 2008). If instead of including *Main Bank* as a separate variable we included it as a component of *CG Composite*, our conclusions were again unchanged.

Next, we examined the sensitivity of our results to three alternative judgments we could have made when assembling the data. In the main results we employed the weightings recommended by CGES when calculating the CG sub-indexes. When we substituted equal weightings, as is common in prior research (e.g., Aggarwal *et al.*, 2011), our conclusions did

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[18] The CGES data for the CG sub-index *Main Bank* are available from 2006 onwards. Missing data on *Main Bank* reduced our sample size to $N = 11,659$ for the document count and timeliness of prices models and $N = 11,603$ for the timeliness of documents models. See Appendix Table A1, Panel D for further information on *Main Bank*.

not change. Second, when rather than using contemporaneous CG we used CG in the previous year, again our conclusions were unchanged. Third, when we used a measure of CG which was not re-based annually, to allow the CG variables to reflect changes over time, once again our conclusions were unchanged. Similarly, our conclusions were unchanged when we standardized firm size, leverage and volatility by year (to allow for year effects in their first and second moments).

We also examined the sensitivity of our results to use of an alternative measure of disclosure transparency, namely the CGES *Information Disclosure* sub-index. This measure of disclosure has a broader definition than *Ldocs* (see Appendix A, Table A1, Panel E). Using *Information Disclosure* as a dependent variable, we find comparable results to those reported in Table 3, column (1). However, the interaction term (*CG Composite* x *Good News*) is not statistically significant at conventional levels. This result may be due to the broader measure of disclosure used by CGES.

If information transfers were important determinants of Japanese share prices, then our measure of a company's timeliness (which is anchored on its annual earnings announcement date) could be biased downwards for late reporters. To explore any bias of this nature, we investigated the effect of including the CGES *Information Disclosure* sub-index, which includes an assessment of the firm's reporting lag, as an explanatory variable. Our results proved robust to the inclusion of this variable, either as a separate variable or as a component of *CG Composite*. *Information Disclosure* was associated with more timely document releases and prices, particularly for bad news. In further tests we explored measures of *TGood, TBad* and *TAll* that (i) took into account the reporting lag directly and (ii) filtered out smaller daily returns, such as those reflecting bid-ask bounce, because they are likely to introduce noise into

timeliness measures. We found there was less timely price discovery for better-governed firms when their news was bad (*TBad*).

Our results are robust to several other data issues. For example we find similar results when we: censor the top and bottom 1 per cent of dependent variables; use Poisson estimation methods for the disclosure frequency models to allow for count dependent variables; confine the estimation sample to the 80% of company-years where the financial year ended in March, so that firm-years are more closely aligned; use the log of total assets or of total revenue as the proxy for firm size; and include either research and development expenditure or the price-to-book ratio as an additional explanatory variable to control for a firm's growth opportunities.

Finally, we investigated the use of instrumental variable (IV) methods to allow for endogeneity in CG. Ideally an instrumental variable is "correlated with the included endogenous variable(s) and … orthogonal to the error process" (Baum *et al.*, 2003, p.14). We explored the average value of CG in the industry, and by year, as candidate instruments but statistical tests indicated they were weak and unreliable.[19] As Brown *et al.* (2011, p.108) comment, a weak instrument could result in biased results from IV estimation. For this reason we base our findings on OLS estimates (with clustered standard errors).

8. Changes to Corporate Governance in Japan since 2013

A number of changes have been made to Japanese institutional arrangements since the end of our sample period that could condition the way the reader will view the policy implications of our results. As part of the Japanese Government's Revitalization Strategy, there has been a

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[19] We form this view based on tests for underidentification and weak identification; specifically the Kleibergen-Paap *rk* LM statistic and the Kleibergen-Paap *rk* Wald *F* statistic reported using ivreg2 in STATA (Baum *et al.,* 2007).

continued focus on improving CG (Japan Revitalization Strategy, 2014). Two key codes have been introduced. In 2014, the Financial Services Agency introduced Japan's Stewardship Code (Financial Services Agency, 2014) to increase the fiduciary responsibilities of institutional investors. This was followed by the TSE's CG Code, which became effective in June 2015 and has since been updated. [20] Under the new CG Code firms should appoint at least two independent directors (TSE, 2015a, p.21). These Codes are envisioned as "two wheels of a cart", aimed at promoting CG and long-term sustainable growth in Japanese companies (Japan Exchange Group, 2018). Both codes maintain the comply or explain approach.

Changes to the Companies Act in 2015 required firms to explain their board composition if they had no outside directors. Large, listed companies were given another alternative organization structure, "the company with audit and supervisory committee". The supervisory committee is to comprise at least three directors, a majority being outside directors. Since members of the committee are directors, they can vote at board meetings (statutory auditors do not vote under the corporate auditors system). However, a company with a supervisory committee has no requirement to establish a nomination committee, which may negatively impact on overall CG (Cochran *et al.*, 2016).

How have firms responded to these changes? A number of TSE-First Section firms have appointed independent directors to their boards and, by 2016, 17% had adopted the company with supervisory committee system.[21] In addition, share-based incentives for directors, which are linked to long-term earnings performance, have become more commonplace (Nikkei Asian Review, 2017a). The 2017 TSE White Paper, which surveys firms' CG structures, reports 34%

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[20] This Code has subsequently been revised, the most recent version being dated June 2018 (TSE, 2018).
[21] In 2016, 97.1% of TSE First-Section firms had at least one independent outside director. The proportion of TSE First-Section firms with the corporate auditors system was 79.2%; 3.1% followed the company with three committees system and 17.7% had a supervisory committee (TSE, 2017). Firms' responses to the new system have been criticized as a "quick fix" to the need for two independent directors, as expected under the CG code, because corporate auditors may be reassigned as outside directors on the new supervisory committee (Nikkei Asian Review, 2017b).

of TSE First-Section firms had stock option plans (TSE, 2017). Institutional investors are becoming more active, for example, in encouraging firms to reduce their cash balances and to appoint outside directors (Matsushita, 2018). An amendment to the Stewardship Code in 2017 included additional requirements for institutional investors to disclose their voting records on all proposals, encouraging greater engagement. Minority shareholders are providing further incentives to strengthen CG, with a greater willingness to act against a firm involved in corporate wrong-doing, for example by filing individual law suits against Toshiba (Cochran *et al.*, 2016).

Although the CG structures in place during our sample period may have been insufficient to inhibit managerial opportunism, particularly with regard to the disclosure of good news, those same structures can be viewed as a springboard for regulatory change. Time will tell whether more recent changes to CG codes and practices, and a sharper focus on disclosure requirements and transparency, will have their anticipated effects.

9. Conclusions

We examine the association between CG and Japanese firms' transparency to outsiders. We focus on the number of disclosures, which are under the control of insiders, and the speed of share price discovery, which reflects the pricing outcomes of the release of value-relevant information from all sources. Between mid-2003 and mid-2013, our sample period, the TSE released a set of CG principles which specifically refer to corporate transparency and ensuring "timely and accurate disclosure … (of) all material matters" as important governance outcomes. During this time firms' ownership structures have been evolving towards smaller cross-shareholdings and greater foreign ownership, which can prompt further adjustments to CG arrangements and greater transparency to outside parties.

We use data from CGES, which rates the quality of CG of Japanese firms. We combine three CG sub-indexes (*Board Organization, Board Behavior* and *Ownership*) into an overall composite index. Using this composite index, we find better (i.e., more highly rated) CG is associated with more frequent disclosures, consistent with prior research. We also find share price discovery is faster for Japanese firms with better CG, but only when the share market considers their news is good. The more timely release of good relative to bad news to the share market by better-governed firms, and the market's more timely integration of good news into the share prices of those firms, are novel findings and differ from Beekes *et al.* (2016b). Further analysis suggests that the disclosure practices we have observed relating to good news and its timeliness may have been influenced by board incentives (proxied in this study by *Board Behavior*). Firms rated more highly on *Board Behavior* with good news are found to release more documents, and to release them earlier. Consequently, share prices reflect good news faster. In sum, it would appear that when directors have significant wealth invested in the firm, either through stock options or current shareholdings, incentives to focus upon disclosing good news are not suppressed by other CG mechanisms.

During our sample period, the move to adopt CG structures that promote greater transparency has been only partially effective. Thus, when market providers or regulators are developing future guidelines there may be benefit in increasing the attention given to earlier disclosure of bad news. It is of course an open question whether the two new codes introduced since the end of our sample period, namely the Stewardship Code and the CG Code, have improved disclosure behaviour and the efficiency of share prices in Japan to a level that meets community expectations. Future research could study the impact of these Codes, once enough data are available.

REFERENCES

Aggarwal, R., Erel, I., Ferreira, M., & Matos, P. (2011). Does governance travel around the world? Evidence from institutional investors. *Journal of Financial Economics*, *100*(1), 154-181.

Aguilera, R. V., Desender, K. A., Lamy M. L. P., & Lee, J. H. (2017). The governance impact of a changing investor landscape. *Journal of International Business Studies*, *48*(2), 195-221.

Ball, R., Kothari, S. P., & Robin, A. (2000). The effect of international institutional factors on properties of accounting earnings. *Journal of Accounting and Economics, 29*(1), 1-51.

Ball, R. & Brown, P. (1968). An empirical evaluation of accounting income numbers. *Journal of Accounting Research, 6*(2), 159-178.

Basu, S. (1997). The conservatism principle and the asymmetric timeliness of earnings. *Journal of Accounting and Economics*, *24*(1), 3-37.

Basu, S., Hwang, L. S., Mitsudome, T., & Weintrop, J. (2007). Corporate governance, top executive compensation and firm performance in Japan. *Pacific-Basin Finance Journal, 15*(1), 56-79.

Bauer, R., Frijins, B., Otten, R., & Tourani-Rad, A. (2008). The impact of corporate governance on corporate performance: Evidence from Japan. *Pacific-Basin Finance Journal*, *16*(3), 236-251.

Baum, C. F., Schaffer, M. E., & Stillman, S. (2007). ivreg2: Stata module for extended instrumental variables/2SLS, GMM and AC/HAC, LIML, and k-class regression. Boston College Department of Economics, Statistical Software Components S425401. Available at: http://ideas.repec.org/c/boc/bocode/s425401.html.

Baum, C. F., Schaffer, M. E., & Stillman, S. (2003). Instrumental variables and GMM: Estimation and Testing. *The Stata Journal, 3*(1), 1-31.

Beekes, W., & Brown, P. (2006). Do better-governed Australian firms make more informative disclosures? *Journal of Business Finance and Accounting*, *33*(3-4), 422-450.

Beekes, W., & Brown, P. (2007). On the timeliness of price discovery. Working paper, available at SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=938982.

Beekes, W., Brown, P., & Zhang, Q. (2015). Corporate governance and the informativeness of disclosures in Australia: A re-examination. *Accounting and Finance*, *55*(4), 931-963.

Beekes, W., Brown, P., Chin, G., & Zhang, Q. (2016a). The effects of corporate governance on information disclosure, timeliness and market participants' expectations. Working paper available at SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2122300.

Beekes, W., Brown, P., Zhan, W., & Zhang, Q. (2016b). Corporate governance, companies' disclosure practices and market transparency: A cross country study. *Journal of Business Finance and Accounting*, *43*(3-4), 263-297.

Botosan, C. A. (2000). Evidence that greater disclosures lowers the cost of equity capital. *Journal of Applied Corporate Finance*, *12*(4), 60-69.

Brown, P., Beekes, W., & Verhoeven, P. (2011). Corporate governance, accounting and finance: A review. *Accounting and Finance*, *51*(1), 96-172.

Buchanan, J., Chai, D. H., & Deakin, S. (2014). Agency theory in practice: A qualitative study of hedge fund activism in Japan. *Corporate Governance: An International Review*, *22*(4), 296-311.

Buchanan, J. (2007). Japanese corporate governance and the principle of "internalism". *Corporate Governance: An International Review, 15*(1), 27-35.

Cheung, J. K., Kim, J. B., & Lee, J. (1999). The impact of institutional characteristics on return-earnings associations in Japan. *The International Journal of Accounting*, *34*(4), 571-596.

Chizema, A., & Shinozawa, Y. (2012). The 'company with committees': Change or continuity in Japanese corporate governance? *Journal of Management Studies, 49*(1), 77-101.

Cho, M., Hah, Y. D., & Kim, O. (2011). Optimistic bias in management forecasts by Japanese firms to avoid forecasting losses. *The International Journal of Accounting*, *46*(1), 79-101.

Cochran, S., Allen, J., & Yonts, C. (2016). CG Watch 2016. Ecosystems matter. Asia's path to better home-grown governance. Special report. September. CLSA in collaboration with Asian Corporate Governance Association. Available at: https://www.acga-asia.org/upload/files/research_preview/20161014021202_3.pdf.

Core, J. E., (2001). A review of the empirical disclosure literature: Discussion. *Journal of Accounting and Economics*, *31*(1), 441-456.

Desender, K. A., Aguilera, R. V., Lópezpuertas-Lamy, M. & Crespi, R. (2016). A clash of governance logistics: Foreign ownership and board monitoring. *Strategic Management Journal, 37*(2), 349-369.

Fama, E.F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance, 25*(2), 383-417.

Financial Services Agency (2014). Principles for responsible investors. Japan's stewardship code. To promote sustainable growth of companies through investment and dialogue. The council of experts concerning the Japanese version of the stewardship code, February 26 2014. Available at: https://www.fsa.go.jp/en/refer/councils/stewardship/20140407/01.pdf.

Ginsburg, T., & Hoetker, G. (2006). The unreluctant litigant? An empirical analysis of Japan's turn to litigation. *The Journal of Legal Studies*, *35*(1), 31-59.

Hofstede, G. (1983). National cultures in four dimensions: A research-based theory of cultural differences among nations. *International Studies of Management and Organization*, *13* (1-2), 46-74.

Itami, H. (2005). Revision of the Commercial Code and reform of the Japanese corporate governance. *Japan Labor Review*, *2*(1), 4-25.

Japan Exchange Group (2018). Enhancing corporate governance. Available at: https://www.jpx.co.jp/english/news/1020/index.html .

Japan Revitalization Strategy (2014). *Japan's challenge for the future.* Prime minister of Japan and his cabinet. Available at: http://www.kantei.go.jp/jp/singi/keizaisaisei/pdf/honbunEN.pdf.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305-360.

Jiang, L., & Kim, J-B. (2004). Foreign equity ownership and information asymmetry: Evidence from Japan. *Journal of International Financial Management and Accounting*, *15*(3), 185-211.

Kaplan, S. N. (1994). Top executive rewards and firm performance. A comparison of Japan and the United States. *Journal of Political Economy*, *102*(3), 510-546.

Kawaguchi, Y. (2009). The enactment and significance of the Financial Instruments and Exchange Act in Japan. *Private International Law, 52*, 482-499.

Kitagawa, N., & Okuda, S. (2016). Management forecasts, idiosyncratic risk, and the information environment. *The International Journal of Accounting, 51*(4), 487-503.

Kothari, S. P., Shu, S., & Wysocki, P. D. (2009). Do managers withhold bad news? *Journal of Accounting Research*, *47*(1), 241-276.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. *Journal of Political Economy, 106*(6), 1113-1155.

Lang, M., & Lundholm, R. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research*, *31*(2), 246-271.

Lev, B., & Penman, S. H. (1990). Voluntary forecast disclosure, nondisclosure, and stock prices. *Journal of Accounting and Research*, *28*(1), 49–76.

Matsushita, A. (2018). Chapter 5. Japan. In Aquila, F. J., (Ed.) *The shareholder rights and activism review* (pp. 45-56). 3rd Ed. London: Law Business Research Ltd. Available at: https://thelawreviews.co.uk/edition/the-shareholder-rights-and-activism-review-edition-3/1173614/japan .

Nikkei Asian Review (2017a). Third of Japanese corporations soon to offer stock incentives. Nikkei Asian Review. 31 May 2017. Available at: https://asia.nikkei.com/Business/Trends/Third-of-Japanese-corporations-soon-to-offer-stock-incentives.

Nikkei Asian Review (2017b). Japan's corporate governance gets some long-overdue scrutiny. 6 July 2017. Available at: https://asia.nikkei.com/Economy/Japan-s-corporate-governance-gets-some-long-overdue-scrutiny.

Sengupta, P. (1998). Corporate disclosure quality and the cost of debt. *The Accounting Review*, *73*(4), 459-474.

Sengupta, P. (2004). Disclosure timing: Determinants of quarterly earnings release dates. *Journal of Accounting and Public Policy*, *23*(6), 457-482.

Skinner, D. J. (1994). Why firms voluntarily disclose bad news. *Journal of Accounting Research*, *32*(1), 38-60.

Taylor, G., Richardson, G., Tower, G., & Hancock, P. (2012). The determinants of reserves disclosure in extractive industries: Evidence from Australian firms. *Accounting & Finance*, *52*, 373-402.

Tokyo Stock Exchange, Inc. [TSE] (2004). Principles of corporate governance for listed companies. 16.03.04. Tokyo: Tokyo Stock Exchange, Inc. Available at: http://www.jpx.co.jp/english/equities/listing/cg/tvdivq0000008j6d-att/principles.pdf.

Tokyo Stock Exchange, Inc [TSE] (2007) TSE-listed companies. White paper of corporate governance 2007. March 2007. Tokyo: Tokyo Stock Exchange, Inc. Available at: https://www.jpx.co.jp/english/equities/listing/cg/tvdivq0000008jb0-att/white-paper07e.pdf.

Tokyo Stock Exchange, Inc. [TSE] (2009). Principles of corporate governance for listed companies. 22.12.09. Tokyo: Tokyo Stock Exchange, Inc. Available at: http://www.jpx.co.jp/english/equities/listing/cg/tvdivq0000008j6d-att/principles_200912.pdf.

Tokyo Stock Exchange, Inc. [TSE] (2013). TSE-listed companies white paper on corporate governance 2013. February 2013. Tokyo: Tokyo Stock Exchange, Inc. Available at: http://www.jpx.co.jp/equities/listing/cg/tvdivq0000008jb0-att/b7gje6000003ukm8.pdf.

Tokyo Stock Exchange, Inc. [TSE] (2015a). Japan's corporate governance code. Seeking sustainable corporate growth and increased corporate value over the mid- to long-term. 01.06.15. Tokyo: Tokyo Stock Exchange, Inc. Available at: http://www.ecgi.org/codes/documents/japan_cg_code_1jun15_en.pdf.

Tokyo Stock Exchange, Inc. [TSE] (2015b). TSE-listed companies white paper on corporate governance 2015. March 2015. Tokyo: Tokyo Stock Exchange, Inc. Available at: http://www.jpx.co.jp/english/equities/listing/cg/tvdivq0000008jb0-att/2015.pdf.

Tokyo Stock Exchange, Inc. [TSE] (2017). TSE-Listed companies white paper on corporate governance 2017. March 2017. Tokyo: Tokyo Stock Exchange, Inc. Available at: https://www.jpx.co.jp/english/equities/listing/cg/tvdivq0000008jb0-att/b5b4pj000001nj2x.pdf .

Tokyo Stock Exchange, Inc. [TSE] (2018). Japan's corporate governance code. Seeking sustainable corporate growth and increased corporate value over the mid-to long-term.

Tokyo Stock Exchange, Inc. 1 June 2018. Available at: https://www.jpx.co.jp/english/news/1020/tvdivq0000008jdy-att/20180601.pdf .

Uchida, K. (2011). Does corporate board downsizing increase shareholder value? Evidence from Japan. *International Review of Economics and Finance*, *20*(4), 562-573.

Verrecchia, R. E. (1983). Discretionary disclosure. *Journal of Accounting and Economics*, *5*, 179-194.

Wisenbaker, C. T. (2010). Japan's financial instruments and exchange law: Hercules or hydra. *Georgia Journal of International and Comparative Law, 38*, 473-509.

Yoshikawa, T., & McGuire, J. (2008). Change and continuity in Japanese corporate governance. *Asia Pacific Journal of Management*, *25*(1), 5-24.

TABLE 1
Descriptive Statistics

Variables	N	Mean	Median	Std. Dev.	Min.	Max.
Docs	14,116	16.440	14	8.516	2	122
Ldocs	14,116	2.764	2.708	0.423	1.099	4.812
Tdocs All	13,561	0.543	0.543	0.110	0.129	0.964
Tdocs Good	13,561	0.539	0.538	0.164	0.007	0.999
Tdocs Bad	13,561	0.538	0.535	0.160	0.004	0.999
T	14,116	0.156	0.121	0.125	0.011	1.999
TDef	14,116	0.118	0.102	0.070	0.011	0.646
TGood	14,116	0.504	0.503	0.051	0.275	0.772
TBad	14,116	0.505	0.504	0.042	0.338	0.732
TAll	14,116	0.504	0.503	0.041	0.348	0.700
CG Composite	14,116	16.976	17	5.494	3	30
Board Organization	14,116	5.045	5	3.070	1	10
Board Behavior	14,116	4.828	5	2.821	1	10
Ownership	14,116	7.103	8	2.585	1	10
Size(¥m)	14,116	215,859	42,173	731,059	781	24,400,000
Leverage	14,116	51.376	52.075	20.397	1.540	219.550
Volatility Docs	14,116	0.019	0.017	0.010	0.003	0.130
Volatility Prices	14,116	0.017	0.015	0.007	0.004	0.137
Good News = 1	14,116	0.610			0	1

Notes: Docs is the number of documents filed by the company with the Tokyo Stock Exchange over the year. *Ldocs* is the natural logarithm of (1+*Docs*). *Tdocs All* is the timeliness of documents weighted by the sizes of the share returns associated with the documents' release. *Tdocs Good (Bad)* is the timeliness of documents when there is good (bad) news weighted by share returns at the time of the release; news associated with a document release is classified as good or bad dependent upon the unadjusted return for that particular document-day; a price rise is classified as 'good news' and a price decline is classified as 'bad news'. *T* is the timeliness metric for share prices and is calculated as the average over 365 days of the absolute difference between the log of market-adjusted daily share price and its counterpart 14 days after the release of the firm's financial results for the year. *TDef* is *T* divided by one plus the absolute value of the

market-adjusted rate of return over the 365 days for which *T* is measured. *TGood* is the timeliness of prices on days when the share price rose relative to the market index and *TBad* is the timeliness of prices when it fell. *TAll* is the timeliness of all price movements, i.e., taking both negative and positive market-adjusted daily returns into account. *CG Composite* is a measure of overall firm-level corporate governance quality as assessed by CGES. *Board Organization, Board Behavior* and *Ownership* are measures of three sub-indexes of corporate governance quality as assessed by CGES; *CG Composite* is an equal-weighted sum of the three sub-indexes of corporate governance. *Size* is the market value of equity (in ¥million) at the end of the previous financial year. *Leverage* is the firm's leverage defined as total liabilities divided by total assets, also measured at the end of the previous financial year. *Volatility Docs* is the standard deviation of daily log returns over the 90 day period ending the day before the start of the period over which *Docs* is measured. *Volatility Prices* is the standard deviation of daily log returns over the 90 day period ending the day before the start of the period for which *T* is measured. *Good News* is a dummy variable equal to one when the firm's share price outperforms the market index over the year and zero otherwise.

TABLE 2
Bivariate Correlations (*N* = 14,116)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
1. Docs															
2. Ldocs	0.94*														
3. T	0.08*	0.08*													
4. TDef	0.08*	0.08*	0.94*												
5. TGood	0.02	0.02*	0.28*	0.31*											
6. TBad	0.00	0.00	0.17*	0.17*	0.51*										
7. TAll	0.01	0.01	0.28*	0.31*	0.90*	0.84*									
8. CG Composite	0.28*	0.28*	0.02*	0.02*	-0.01	0.01	-0.00								
9. Board Organization	0.18*	0.18*	0.05*	0.05*	0.01	0.01	0.01	0.65*							
10. Board Behavior	0.19*	0.19*	0.00	-0.01	-0.03*	0.02*	-0.01	0.66*	0.08*						
11. Ownership	0.17*	0.18*	-0.01	-0.00	-0.01	-0.02*	-0.02*	0.64*	0.09*	0.22*					
12. Size	0.23*	0.23*	-0.11*	-0.12*	-0.02*	-0.01	-0.02*	0.30*	-0.01	0.12*	0.53*				
13. Leverage	0.08*	0.07*	0.15*	0.15*	0.03*	-0.01	0.02	-0.24*	-0.04*	-0.31*	-0.12*	0.05*			
14.Volatility_Docs	0.01	-0.01	0.22*	0.22*	-0.15*	-0.21*	-0.20*	-0.02*	0.07*	-0.12*	-0.00	-0.21*	0.22*		
15. Volatility_Prices	0.10*	0.08*	0.57*	0.55*	0.12*	0.08*	0.12*	-0.01	0.10*	-0.09*	-0.03*	-0.28*	0.24*	0.51*	
16. Good News = 1	-0.01	-0.01	0.16*	0.15*	0.09*	0.11*	0.11*	0.04*	-0.02	0.03*	0.06*	0.09*	0.00	0.09*	0.19*

Notes: The correlation matrix above excludes the variables *Tdocs All, Tdocs Good* and *Tdocs Bad* as they are based upon a different sample (*N* = 13,561) due to missing data. *Size* in this and subsequent tables is defined as the log of the size variable in Table 1; all other variables are as previously defined. * indicates correlations are significant at the 5% level or better (two-tailed test).

TABLE 3

The Relationship between Corporate Governance, and the Frequency and Timeliness of Disclosures

Dependent Variable:	Ldocs	Ldocs	Tdocs All	Tdocs All	Tdocs Good	Tdocs Bad
Column No:	(1)	(2)	(3)	(4)	(5)	(6)
CG Composite	0.0958***	0.0883***	-0.0033***	-0.0002	-0.0040**	-0.0011
	[13.87]	[11.26]	[-2.84]	[-0.15]	[-2.33]	[-0.65]
Good News	-0.0232***	-0.0232***	0.0097***	0.0097***		
	[-3.33]	[-3.34]	[4.99]	[5.02]		
Good News x		0.0125**		-0.0051***		
CG Composite		[1.96]		[-2.80]		
Size	0.0838***	0.0836***	-0.0096***	-0.0096***	-0.0060***	-0.0110***
	[10.26]	[10.25]	[-8.14]	[-8.08]	[-3.55]	[-6.98]
Leverage	0.0606***	0.0606***	0.0061***	0.0061***	0.0081***	0.0037**
	[8.31]	[8.31]	[5.28]	[5.29]	[4.78]	[2.41]
Volatility Docs	0.0142**	0.0144**	-0.0063***	-0.0064***	-0.0104***	-0.0021
	[2.46]	[2.49]	[-4.85]	[-4.90]	[-5.85]	[-1.26]
F-test	86.38***	83.10***	55.32***	53.65***	29.97***	27.79***
Adj. R^2	0.220	0.220	0.081	0.082	0.048	0.039
Year & Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
N	14,116	14,116	13,561	13,561	13,561	13,561

Notes: The continuous explanatory variables are divided by their standard deviations to assist interpretation. The sample comprises firms listed on the First Section of the Tokyo Stock Exchange and contained in the CGES database with financial years ending between 1 August 2003 and 31 July 2013. Results are estimated using pooled cross section and time series regression fitted by Ordinary Least Squares regression methods with standard errors robust to the presence of heteroscedasticity. All standard errors are clustered by firm. Variables as previously defined. *t*-statistics are shown in parentheses. * $p<0.1$; ** $p<0.05$; *** $p<0.01$ (two-tailed *t*-test).

TABLE 4
The Relationship between Corporate Governance and the Timeliness of Price Discovery

Dependent Variable:	T	T	TDef	TDef	TAll	TAll	TGood	TBad
Column No:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CG Composite	0.0015	0.0029**	0.0013**	0.0025***	-0.0002	0.0015***	-0.0009**	0.0002
	[1.31]	[1.96]	[2.05]	[3.10]	[-0.67]	[3.11]	[-2.21]	[0.59]
Good News	0.0183***	0.0183***	0.0099***	0.0100***	0.0088***	0.0088***		
	[10.26]	[10.29]	[9.30]	[9.33]	[13.41]	[13.58]		
Good News x		-0.0023		-0.0021**		-0.0028***		
CG Composite		[-1.33]		[-2.11]		[-4.73]		
Size	0.004***	0.0036***	0.001	0.0009	-0.001**	-0.0007**	0.000	-0.000
	[3.15]	[3.16]	[1.33]	[1.34]	[-2.40]	[-2.38]	[1.09]	[-0.65]
Leverage	0.0026**	0.0026**	0.0027***	0.0027***	0.0007**	0.0007**	0.0011**	-0.0002
	[2.12]	[2.14]	[3.64]	[3.67]	[2.20]	[2.28]	[2.53]	[-0.58]
Volatility Prices	0.0699***	0.0698***	0.0360***	0.0360***	0.0021***	0.0019***	0.0040***	0.0018***
	[26.05]	[26.02]	[23.54]	[23.49]	[4.31]	[4.07]	[6.19]	[4.15]
F-test	106.37***	102.96***	133.17***	130.06***	221.23***	211.50***	121.33***	269.47***
Adj. R^2	0.345	0.345	0.332	0.332	0.293	0.294	0.184	0.288
Year & Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	14,116	14,116	14,116	14,116	14,116	14,116	14,116	14,116

Notes: The continuous explanatory variables are divided by their standard deviations to assist interpretation. The sample comprises firms listed on the First Section of the Tokyo Stock Exchange and contained in the CGES database with financial years ending between 1 August 2003 and 31 July 2013. Results are estimated using pooled cross section and time series regression fitted by Ordinary Least Squares regression methods with standard errors robust to the presence of heteroscedasticity. All standard errors are clustered by firm. Variables as previously defined. *t*-statistics are shown in parentheses. * $p<0.1$; ** $p<0.05$; *** $p<0.01$ (two-tailed *t*-test).

TABLE 5

The Marginal Influence on Transparency of Three Components of Corporate Governance

PANEL A: Documents and Timeliness of Documents

Dependent Variable:	Ldocs	Ldocs	Tdocs All	Tdocs All	Tdocs Good	Tdocs Bad
Column No:	(1)	(2)	(3)	(4)	(5)	(6)
Board Organization	0.0633***	0.0660***	-0.0021**	-0.002	-0.0010	-0.0011
	[10.58]	[9.15]	[-2.03]	[-1.30]	[-0.68]	[-0.74]
Board Behavior	0.0624***	0.0535***	-0.0044***	-0.0019	-0.0061***	-0.0037**
	[8.38]	[6.23]	[-3.74]	[-1.14]	[-3.52]	[-2.35]
Ownership	0.0158***	0.0116	0.0021	0.0039**	0.0012	0.0039**
	[2.28]	[1.48]	[1.62]	[2.34]	[0.66]	[2.18]
Good News	-0.0237***	-0.0234***	0.0099***	0.0098***		
	[-3.40]	[-3.36]	[5.07]	[5.06]		
Good News x		-0.0044		-0.0003		
Board Organization		[-0.69]		[-0.15]		
Good News x		0.0150**		-0.0043**		
Board Behavior		[2.16]		[-2.37]		
Good News x		0.0072		-0.0032*		
Ownership		[1.15]		[-1.65]		
F-test	80.32***	72.35***	52.23***	47.61***	28.11***	26.11***
Adj. R^2	0.223	0.224	0.082	0.083	0.048	0.039
Year & Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
N	14,116	14,116	13,561	13,561	13,561	13,561

PANEL B: Timeliness of Prices

Dependent Variable:	T	T	TDef	TDef	TAll	TAll	TGood	TBad
Column No.:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Board Organization	-0.001	-0.0002	-0.0002	0.0002	0.0002	0.0005	0.0000	0.0001
	[-1.09]	[-0.15]	[-0.42]	[0.30]	[0.94]	[1.09]	[0.03]	[0.48]
Board Behavior	0.0071***	0.0083***	0.0026***	0.0040***	-0.0002	-0.0002	-0.0011**	0.0010***
	[6.29]	[5.89]	[4.22]	[5.21]	[-0.54]	[-0.35]	[-2.57]	[3.04]
Ownership	-0.0043***	-0.0042***	-0.0004	-0.0004	-0.0005	0.0019***	-0.0005	-0.0010***
	[-3.62]	[-3.13]	[-0.62]	[-0.56]	[-1.51]	[3.73]	[-0.96]	[-2.71]
Good News	0.0176***	0.0176***	0.0097***	0.0097***	0.0088***	0.0088***		
	[9.89]	[9.91]	[9.10]	[9.11]	[13.41]	[13.62]		
Good News x		-0.0013		-0.0007		-0.0003		
Board Organization		[-0.78]		[-0.76]		[-0.59]		
Good News x		-0.0019		-0.0024**		0.000		
Board Behavior		[-1.03]		[-2.33]		[0.07]		
Good News x		-0.0001		0.0001		-0.0041***		
Ownership		[-0.08]		[0.10]		[-6.71]		
F-test	99.31***	90.44***	123.83***	113.72***	205.51***	183.21***	112.30***	248.88***
Adj. R^2	0.347	0.347	0.333	0.333	0.293	0.295	0.184	0.289
Year & Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	14,116	14,116	14,116	14,116	14,116	14,116	14,116	14,116

Notes: The continuous explanatory variables are divided by their standard deviations to assist interpretation. Coefficients and *t*-values for control variables have been omitted from the table in the interests of brevity. The sample comprises firms listed on the First Section of the Tokyo Stock Exchange and contained in the CGES database with financial years ending between 1 August 2003 and 31 July 2013. Results are estimated using pooled cross section and time series regression fitted by Ordinary Least Squares regression methods with standard errors robust to the presence of heteroscedasticity. Standard errors are clustered by firm. In the interests of brevity, only the coefficients for the corporate governance variables, *Good News*, plus interaction terms between corporate governance and *Good News* from our results are tabulated. Variables as previously defined. *t*-statistics are shown in parentheses. * $p<0.1$; ** $p<0.05$; *** $p<0.01$ (two-tailed *t*-test).

The TSE's Principles of Corporate Governance for Listed Companies (March 2004)

1. **Rights of shareholders**

   Corporate governance for listed companies should protect the rights of shareholders.

   <u>Issues requiring attention:</u>

   Listed companies shall direct their attention to the following issues in order to protect the rights of shareholders:

   1.1 Respect of shareholders' basic rights
      a. Respect of voting rights
         (i) Development and improvement of an environment in which shareholders exercise voting rights appropriately;
         (ii) Development and improvement of an environment in which shareholders are inclined to participate in general meetings of shareholders;
         (iii) Mutual communication with shareholders at the general meetings of shareholders;
      b. Return of profit to shareholders.
   1.2 Due consideration of infringement of rights of existing shareholders.
      a. Enhanced disclosure of information to shareholders in situations where specified shareholders have excessive control that is not in proportion to the ownership ratio, and the rights of other shareholders are substantially infringed.
      b. Securing fair treatment of and enhanced information disclosure to shareholders in cases where the ownership distribution of the company is, or will be, changed.

2. **Equitable treatment of shareholders**

   Corporate governance for listed companies should ensure the equitable treatment of all shareholders, including minority and foreign shareholders.

   <u>Issues requiring attention:</u>

   Listed companies shall direct their attention to the following issues in order to secure equitable treatment of shareholders:

   2.1 Development and improvement of a system to prohibit transactions against the primary interests of the company or shareholders through the abuse of concerned parties' positions such as officers, employees and controlling shareholders;
   2.2 Enhanced disclosure of information to shareholders in cases where concerned parties conduct actions that are likely to damage the primary interests of the company or shareholders;
   2.3 Prohibition of special benefits to specified shareholders.

3. **Relationship with stakeholders in corporate governance**

   Corporate governance for listed companies should help create corporate value and jobs through the establishment of smooth relationships between the company and its stakeholders and encourage further sound management of the enterprise.

   <u>Issues requiring attention:</u>

   Listed companies should direct their attention to the following issues in order to establish smooth relationships with stakeholders other than shareholders:

3.1 Cultivation of a corporate culture that respects the positions of stakeholders, and development of internal systems therefore;

3.2 Timely and accurate disclosure to stakeholders of material information relating to stakeholders, and development of internal systems therefore.

4. Disclosure and Transparency

Corporate governance for listed companies should ensure that timely and accurate disclosure is conducted on all material matters including the financial condition, performance results and ownership distribution.

Issues requiring attention:

Listed companies should direct their attention to the following issues in order to conduct timely and accurate disclosure:

4.1 Enhanced disclosure of quantitative information on financial conditions and operating results and enhanced disclosure of qualitative information that deepens the understanding of the management conditions of companies by investors;

4.2 Securing opportunities for investors to access information equally and easily;

4.3 Development and improvement of internal systems to secure the accuracy and promptness of disclosure.

5. Responsibilities of Board of Directors, Auditors, Board of Corporate Auditors, and other relevant group(s)

Corporate governance for listed companies should enhance the supervision of management by the Board of Directors, Auditors, Board of Corporate Auditors, and other relevant group(s)[22], and ensure their accountability to shareholders.

Issues requiring attention:

Listed companies should direct their attention to the following issues to ensure that the Board of Directors, Auditors, Board of Corporate Auditors and other relevant group(s) sufficiently fulfil their responsibilities for management supervision and accountability to shareholders:

5.1 Monitoring of the management by the Board of Directors and Auditors or Board of Corporate Auditors and other relevant group(s).

a. Organization or a Board of Directors, Auditors, Board of Corporate Auditors, and other relevant group(s) suitable for making an objective determination on the execution of business by management;

b. Development and improvement of a system under which the Board of Directors, Auditors, Board of Corporate Auditors, and other relevant group(s) assume responsibility for supervising the management;

c. Development and improvement of an internal check and balance system under which the Board of Directors, Auditors, Board of Corporate Auditors, and other relevant group(s) make reasonable judgements on their compliance with laws and regulations and accuracy of business operation conditions.

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[22] The term "Board of Directors, Auditors, Board of Corporate Auditors, and other relevant group(s)" refers to the organization responsible for supervising management, mainly the Board of Directors and Auditors or Board of Corporate Auditors.

5.2 Motivation for the management to maximize corporate value through positive convergence and company interests by appropriate means.

5.3 Development and improvement of a mutual monitoring system by directors under which fulfilment of duty and integrity as prudent managers should be secured and under which illegal activities and inappropriate activities from the perspective of generally accepted views are prevented.

Note: Source TSE (2004: 7-13).

APPENDIX B
Two Different Mechanisms for Corporate Governance in Japan

1. Company with a board of corporate auditors (corporate auditors system)

```
┌─────────────────────────────────────────────────────────────────────────┐
│                    General meeting of shareholders                        │
│                                                                           │
│   •  Decision making on fundamental issues of companies prescribed in     │
│      the Commercial Code and the items prescribed in the Articles of      │
│      Association                                                          │
└─────────────────────────────────────────────────────────────────────────┘
```

Election and discharge   Election and discharge

```
┌──────────────────────────────┐          ┌──────────────────────────────────┐
│     Board of Directors       │          │   Board of Corporate Auditors    │
│                              │          │                                  │
│  •  Decision making for       │  Audit   │  •  Auditing of performance of   │
│     business execution        │          │     directors' duties            │
│  •  Supervision of the        │          │  •  Consists of three corporate  │
│     performance of directors' │          │     auditors or more, including  │
│     duties                    │          │     one full-time corporate      │
│  •  Consists of three members │          │     auditor (at least half of    │
│     or more                   │          │     the members must be outside  │
│                              │          │     auditors).                   │
└──────────────────────────────┘          └──────────────────────────────────┘
```

Supervision   Election and discharge   Election and discharge

```
┌──────────────────────────────┐          ┌──────────────────────────────────┐
│  Representative directors and │          │   External Financial Auditors    │
│      executive directors      │  Audit   │  •  Auditing of the performance  │
│  •  Business execution        │          │     of directors' duties         │
└──────────────────────────────┘          └──────────────────────────────────┘
```

- The terms of office for directors and corporate auditors are two years and four years, respectively.
- Corporate auditors are not allowed to additionally assume the positions of directors or employees of the company or any of its subsidiaries.
- Outside auditors are limited to those who are not, and were not directors or employees of the company or any of its subsidiaries.
- Corporate auditors must attend the meetings of the board of directors and express their opinions as the occasion demands.
- When a director intends to submit an agenda concerning the election of any corporate auditor, that director must obtain the consent on such submission from the board of corporate auditors.
- At the general meetings of shareholders, corporate auditors may express opinions on the election or discharge of any corporate auditor.
- When a director intends to submit an agenda concerning the election or discharge of any external financial auditor, that such director must obtain the consent of such submission from the board of corporate auditors.

2. Company with Three Committees System

```
┌─────────────────────────────────────────────────────────────────────┐
│                   General meeting of shareholders                     │
│                                                                       │
│   • Decision making on fundamental issues of companies prescribed     │
│     in the Commercial Code and the items prescribed in the Articles   │
│     of Association                                                    │
└─────────────────────────────────────────────────────────────────────┘
```

Election and discharge

```
┌─────────────────────────────────────────────────────────────────────┐
│                         Board of directors                            │
│                                                                       │
│   • Decision making for business execution                            │
│   • Supervision of the performance of the duties of directors and     │
│     executives                                                        │
│                                                                       │
│       ┌───────────────────────────────────────────────────┐          │
│       │                  Audit Committee                   │          │
│       │                                                    │          │
│       │   • Auditing of the performance of duties of       │          │
│       │     directors and executives                       │          │
│       │   • Determination of agenda concerning the         │          │
│       │     election and discharge of external financial   │          │
│       │     auditors                                       │          │
│       │   • Consists of three or more of directors who are │          │
│       │     not executives (at least half of the members   │          │
│       │     must be outside directors)                     │          │
│       └───────────────────────────────────────────────────┘          │
│                                                                       │
│   ┌─────────────────────────────┐  ┌─────────────────────────────┐    │
│   │    Nomination Committee     │  │   Compensation Committee    │    │
│   │                             │  │                             │    │
│   │ • Determination of agenda   │  │ • Determination of          │    │
│   │   concerning the election   │  │   compensation for director │    │
│   │   and discharge of          │  │   and executive officers    │    │
│   │   directors                 │  │ • Consists of three or more │    │
│   │ • Consists of three or more │  │   of directors (at least    │    │
│   │   of directors (at least    │  │   half of the members must  │    │
│   │   half of the members must  │  │   be outside directors)     │    │
│   │   be outside directors)     │  │                             │    │
│   └─────────────────────────────┘  └─────────────────────────────┘    │
└─────────────────────────────────────────────────────────────────────┘
```

Supervision   Election and discharge   Audit   Election and discharge

```
┌───────────────────────────────────┐    ┌─────────────────────────────┐
│  Representative executive officers │    │    External Financial       │
│        and executive officers      │    │         Auditors            │
│   • Business execution             │    │  • Auditing of financial    │
│                                    │    │    matters                  │
└───────────────────────────────────┘    └─────────────────────────────┘
```

The terms of office for directors and executive officers shall be one year (unlike companies with a corporate auditors system, companies that have a committees system must annually entrust directors through the general meetings of shareholders since the authority of the definitive plan for distribution of profit is given to the board of directors instead of the general meetings of shareholders).

- Directors are not allowed to execute the business of the company (however, directors can be executive officers).
- Members of the nomination committee, audit committee and compensation committee are elected by the board of directors.
- Outside directors are directors who are not executive officers of the company, were not executive directors or executive officers of the company or any of its subsidiaries in the past, and currently are not executive directors or executive officers of any of its subsidiaries nor employees of the company or any of its subsidiaries.

Note: Appendix B shows the two different mechanisms for CG in Japan. The Company with Three Committees system was introduced in 2003 following changes to the Commercial Code (Source: TSE, 2004: 16 - 18).

Scoring of Corporate Governance Quality in the Corporate Governance Evaluation System (CGES)

PANEL A: Corporate Governance Sub-Index *Board Organization*

Variable Name	Variable Definition	CGES SCORE = 1	CGES SCORE = 5
1. BRD_NUM	The absolute number of board members.	• >25 members on the board of directors.	• ≤10 members on the board of directors.
2. EBRD_NUM*	The number of board members (firm size adjusted): BRD_NUM/*ln*(Total Assets).	• Lowest quintile of distribution of TSE listed firms for number of board members (firm size adjusted).	• Highest quintile of distribution of TSE listed firms for number of board members (firm size adjusted).
3. J_NUM	The number of board members at the upper level (e.g., president, vice president, senior managing director).	• ≥15 directors at the upper level.	• ≤5 directors at the upper level.
4. EJ_NUM*	The number of board members at the upper level (firm size adjusted): J_NUM/*ln*(Total Assets).	• Lowest quintile of distribution of TSE listed firms for number of board members at upper level (firm size adjusted).	• Highest quintile of distribution of TSE listed firms for number of board members at upper level (firm size adjusted).
5. IDORTO	The percentage of outside directors without job experience in a bank, controlling company, affiliated company and/or main bank.	• Board has no independent outside directors (i.e., outside directors without experience in a bank, main bank, controlling or affiliated company).	• Board has ≥15% independent outside directors (i.e., directors without experience in a bank, main bank, controlling or affiliated companies).
6. NEIDRTO[#]	The percentage of non-executive outside directors.	• N/A	• Board has >10% non-executive outside directors.
7. NEIDRTO_ADJ[#]	The percentage of outside directors in firm who do not hold an executive position.	• N/A	• Board has >10% outside directors who do not hold an executive position in the firm.

8. FLG_OPROS[#]	Indicator variable for the adoption of an Executive Officer System	• N/A	• Firm has an Executive Officer System.
9. EXERTO[#]	The percentage of directors holding an executive officer position	• N/A	• ≤50% of directors also hold an executive officer position in the same firm.
10. EXERTO_ADJ[#]	The percentage of directors holding an executive officer position or involved in the execution of duties	• N/A	• ≤50% of the board is comprised of directors holding an executive officer position in the same firm or are directors involved in the execution of duties.
11. FLG_COMM[#]	Indicator variable for the adoption of Board committees (Audit, Nomination and Compensation)	• N/A	• Firm has adopted Board committees for Audit, Nomination and Compensation.

PANEL B: Corporate Governance Sub-Index *Board Behavior*

Variable Name	Variable Definition	CGES SCORE = 1	CGES SCORE = 5
1. DIR	Percentage of shareholdings held by directors	• Lowest quintile of distribution of TSE listed firms for percentage of shareholdings by directors.	• Highest quintile of distribution of TSE listed firms for percentage shareholdings by directors.
2. OWN	Average market value of shareholdings owned by directors	• Lowest quintile of distribution of TSE listed firms for average market value of shareholdings owned by directors.	• Highest quintile of distribution of TSE listed firms for average market value of shareholdings owned by directors.
3. SO[#]	Indicator variable for the adoption of a stock option plan	N/A	• Stock option plan is adopted.

PANEL C: Corporate Governance Sub-Index *Ownership*

Variable Name	Variable Definition	CGES SCORE = 1	CGES SCORE = 5
1. INST	Percentage of shares held by institutional shareholders	• Lowest quintile of distribution of TSE listed firms for percentage shareholdings by institutional shareholders.	• Highest quintile of distribution of TSE listed firms for percentage of shareholdings by institutional shareholders.
2. FRGN	Percentage of shares held by foreign shareholders	• Lowest quintile of distribution of TSE listed firms for percentage of shareholdings by foreign shareholders.	• Highest quintile of distribution of TSE listed firms for percentage of shareholdings by foreign shareholders.
3. FRFLT*	Percentage of shares held by shareholders with holdings of less than 50 shares	• Lowest quintile of distribution of TSE listed firms for percentage of shareholdings by small shareholders.	• Highest quintile of distribution of TSE listed firms for percentage of shareholdings by small shareholders.
4. NFLOAT*	Percentage of shares held by specific shareholders	• Lowest quintile of distribution of TSE listed firms for percentage of shareholdings by specific shareholders.	• Highest quintile of distribution of TSE listed firms for percentage of shareholdings by specific shareholders.
5. DOMI$^\$$	Percentage of shares held by dominant companies	• > 30% share ownership by a dominant company	• N/A
6. CROSS*	Percentage of shares held by domestic companies with cross-shareholding relations	• Lowest quintile of distribution of TSE listed firms for percentage of cross ownership.	• Highest quintile of distribution of TSE listed firms for percentage of cross ownership.
7. ANTEI*	Percentage of shares held by stable shareholders	• Lowest quintile of distribution of TSE listed firms for percentage of ownership by stable shareholders.	• Highest quintile of distribution of TSE listed firms for percentage of ownership by stable shareholders.

PANEL D: Corporate Governance Sub-Index *Main Bank*

Variable Name	Variable Definition	CGES SCORE = 1	CGES SCORE = 5
1. RTO_TPBK*	Percentage of main bank share ownership	• Lowest quintile of distribution of TSE listed firms for percentage of main bank share ownership.	• Highest quintile of distribution of TSE listed firms for percentage of main bank share ownership.
2. RTO_TPBK_D*	Percentage of borrowing from a main bank	• Lowest quintile of distribution of TSE listed firms for percentage of borrowing from a main bank.	• Highest quintile of distribution of TSE listed firms for percentage of borrowing from a main bank.
3. RTO_TPBK2*	Percentage of main bank ownership from the largest lending bank	• Lowest quintile of distribution of TSE listed firms for percentage of main bank share ownership from largest lending bank.	• Highest quintile of distribution of TSE listed firms for percentage of main bank share ownership from largest lending bank.
4. RTO_TPBK2_D*	Percentage of main bank lending from the largest lending bank	• Lowest quintile of distribution of TSE listed firms for percentage of main bank share lending from largest lending bank.	• Highest quintile of distribution of TSE listed firms for percentage of main bank share lending from largest lending bank.

PANEL E: Corporate Governance Sub-Index *Information Disclosure*

Variable Name	Variable Definition	CGES SCORE = 1	CGES SCORE = 5
1. MISFRC	Average of last three years management forecast errors (defined as the absolute value of the difference between actual earnings minus the initial management forecast of earnings, divided by actual sales for the year).	• Lowest quintile of distribution of TSE listed firms for average of last three years of management forecast errors.	• Highest quintile of distribution of TSE listed firms for average of last three years of management forecast errors.

2. AOP3^{+}	Number of qualified audit opinions over the last three years.	• Three audit opinions received in the last three years.	• N/A
3. APCHG3^{+}	Number of accounting policy changes over the last three years.	• Changes to accounting policies in each of the last three years.	• N/A
4. ATRM	Number of days from the end of the accounting period to the date of the announcement of earnings.	• Release date >50 days following the end of the accounting period.	• Release date ≤ 20 days following the end of the accounting period.
5. AGMC	Number of firms that held the annual shareholders meeting on the same date.	• Firm holds annual shareholders meeting on most concentrated date.	• Highest quartile of distribution of TSE listed firms for the number of firms which held annual shareholder meeting on the least concentrated date
6. FLG_CFP[$]	Indicator variable for the release of a management forecast.	• No management forecast issued during the year.	• N/A
7. WEBEVL	Evaluation of the company website based upon ease of understanding, use and information quantity.	• Lowest quintile of distribution of TSE listed firms for evaluation of website.	• Highest quintile of distribution of TSE listed firms for evaluation of website.

Notes: The Table A1 shows how corporate governance is scored in the CGES. The data included in this table are sourced from the variable definitions accompanying the annual CGES data from Nikkei Media Digital Inc. A score of 1 (5) indicates that the firm has scored low (high) on a particular variable. The variable scoring is completed in the same way for all firms, irrespective of the firm's size. Scoring in CGES is completed for each individual variable, and then combined into a sub-index of CG Quality (*Board Organization, Board Behavior, Ownership, Main Bank* and *Information Disclosure)* using the weightings provided by CGES (weightings not tabulated). [*]indicates variable is reverse coded prior to combining into the sub-index of CG quality to ensure item is coded as increasing in corporate governance quality. [#] indicates the *minimum* score in CGES is 3. [$] indicates the *maximum* score in CGES is 3. [+] indicates the *maximum* score in CGES is 4. The adjustments to the minimum and maximum scores in CGES take into account that some specific corporate governance characteristics may not apply to their chosen corporate governance system.