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Corporate Governance Compliance and Herding

Abstract

The international corporate governance literature generally regards ‘comply-or-explain’ regimes as positive. By examining the recent Japanese governance reforms, we show these policies have inadvertently led to overcompliance by target firms and, importantly, non-target firms. The latter group mimicked the compliance behavior of sector-leading firms, and this herding was to the detriment of their shareholder value. The growing demand for and the limited supply of qualified outside directors led firms to appoint individuals with lower advising ability such as busy directors. We also find a larger reduction in the market value of small and R&D intensive firms, and those with low foreign ownership and high retail ownership. These findings have important implications for the international governance literature regarding the ineffectiveness of one-size-fits-all regulation even when it is voluntary.

JEL classifications: G34, M14

Keywords: Corporate governance, Compliance, Herding, Outside Directors, Japan

Corporate Governance Compliance and Herding

1. Introduction

The importance of corporate governance has become increasingly clearer in recent decades, not only for shareholders but for all stakeholders of the corporate sector including customers, suppliers, regulatory institutions, and the society more broadly. In this context, voluntary policies aimed at improving corporate governance outcomes have been increasingly adopted around the world with mostly successful consequences (e.g., Cuomo, Mallin and Zattoni 2016; Fauver et al. 2017). The general argument in favour of voluntary regimes such as ‘comply-or-explain’¹, as opposed to hard regulations such as the Sarbanes-Oxley Act of 2002, is that the former allows for a more flexible approach to corporate governance. As long as firms have good reasons for compliance or non-compliance, voluntary regulations are not expected to diminish firm value. This has naturally led many countries, including those that have rarely appointed outside directors, to adopt similar policies. In this paper, we show ‘importing’ successful voluntary regulations elsewhere can backfire.

We show that myopic implementations of comply-or-explain regimes can result in unusually high levels of compliance across the whole corporate sector, which defeats the purpose and the spirit of a voluntary governance system. We examine the specific case of recent governance reforms in Japan given the country’s unique institutional attributes (e.g., Suto and Toshino, 2005; Kim and Nofsinger, 2005). Specifically, the appointment of outside directors has been a new development for most Japanese listed firms since over a half of them had no outside directors up to 2011. Considering the enormous market capitalization of the Tokyo Stock Exchange, which exceeds that of London Stock Exchange among others, such insider dominance of corporate boards is of interest to the international corporate governance literature.

¹ The concept of comply-or-explain originated in the UK with the 1992 Report of the Committee on the Financial Aspects of Corporate Governance, more commonly known as ‘the Cadbury Report’. This regime provides that a company is to comply with a set code of practice, but if it does not, then it is to state in its annual report that 1) it does not comply and 2) explain the reasons why.

Against this background, we find that governance regimes which encourage adopting ‘best practice’ elsewhere drive firms to comply mainly due to reputational herding (e.g., Scharfstein and Stein, 1990; Schöndube-Pirchegger and Schöndube, 2011; Bikhchandani et al., 2021). In essence, less qualified firms mimic what is perceived to be best practice, while more qualified firms use their better judgement (Jiang and Verardo 2018). We show such herding behavior diminishes firm value. Specifically, the scarce supply of outside directors and the high demand for them given the large number of listed firms in Japan - over 3000 - further contribute to the reduction of firm value following recent governance reforms.

The voluntary code of governance and other related policies introduced since 2014 (hereafter referred to as the ‘Code’) was finalized by the Japanese Financial Services Agency and the Tokyo Stock Exchange (hereinafter, TSE) in March 2015 and implemented in June. According to the Code, firms need to comply with a set of principles or explain their reasons for non-compliance. One of the key requirements is for firms to have at least two outside directors on their boards. This, however, applies only to a subgroup of Japanese firms: those listed on the first section (T1 as in Tier-1) or the second section (T2 as in Tier 2) of the TSE – an overall group we refer to as T12. In our sample in 2013, T1 and T2 firms consist of 59% and 16% of all listed firms, respectively. Overall, 97% of firms list their stocks in the TSE. While this requirement may appear inconsequential relative to other countries, it has had a considerable impact on Japanese corporate governance, where corporate boards have traditionally had fewer outside directors and limited experience in appointing them.

Our findings show that, the introduction of the Code resulted in (over)compliance, and more importantly, within-industry herding especially among non-target firms. Compliance rates increased from 34% in 2013 to 95% among T1 firms, 17% to 82% among T2 firms, and 19% to 57% even among non-target firms. We also find within-industry herding; firms are more likely to comply as the average compliance rate in the industry are higher. This herding is stronger among non-target firms, which suggests that herding is the primary channel for non-target firms to comply.

~ Figure 1 about here ~

The impact of the Code on firm value is even more notable. Using an Instrumental Variable approach, we show that an increase in the percentage of outside directors, induced by the Code, has an opposite effect and reduces firm value as measured by Tobin's Q. In addition, we observe larger negative effects among non-T12 firms than others. Findings demonstrate that this compliance herding reduces the follower firms' market value. We argue that the potential signalling of competence or reputational herding by non-T12 firms, proxied by their compliance behavior, is not positively interpreted by the market. These findings, in aggregate, have important implications for the literature on cross-implementing governance regimes in other countries as well as the firm-level herding literature.

Further tests yield three sets of results. *First*, we compare firms with no outside directors with those with one outside director before the Code. Consistent with herding theories showing that less experienced firms tend to herd, we find that the former herd and reduce firm value more than the latter group.

Second, we observe a radical change in the supply of directors against a growing demand. The share of former CEOs, current outside directors and former outside directors, increased after the Code. However, the share of current CEOs, who likely have higher advising ability than the other three groups, was unchanged. We also find that market value of such firms that could appoint current CEOs as outside directors did not decline. This finding implies that the tight directorship market leads to lower market values among firms unable to appoint qualified outside directors.

Third, we document the role of foreign shareholders in relation to the 'travel' of institutional investors (see, e.g., Aggarwal et al., 2011; Loncan, 2020). Foreign shareholders better understand the spirit of the voluntary governance regimes; thus they do not encourage firms to 'overcomply'. Consistent with this prediction, we find that market values of firms with high levels of foreign ownership did not decline relative to their peers. On the other hand, those firms with high retail ownership, which mostly consists of domestic investors, have lower firm values relative to their counterparts. In addition, small firms and R&D intensive firms experience a larger decline in firm value. In other words, firms that are better served by deploying their resources in their growth, not in voluntary compliance, choose to comply nevertheless due to herding incentives.

Our paper makes several contributions to the corporate governance and broader finance literature. *First*, we extend the body of work on the impact of voluntary corporate governance codes on board independence and firm value (e.g., Cuomo, Mallin, and Zattoni, 2016 for a survey). Our findings are in contrast to a large number of studies that provide positive evaluation (Dahya and McConnell 2007 in the UK; Fernández-Rodríguez, Gómez-Ansón, and Cuervo-García 2004 in Spain; Goncharov et al. 2006 in Germany; Luo and Salterio 2014 in Canada; Fauver et al. 2017 with international data). Our results shows that corporate governance successes in some nations (mainly Anglo-Saxon) are not easy to replicate transnationally, particularly in countries with different institutional attributes in line with Black, de Carvalho, and Gorga (2012) casting doubts on one-size-fits-all governance regulations. Different from their assertions, we find that even voluntary regulations can diminish firm value.

Second, and closely related to the first contribution, we provide evidence of a mechanism behind the reduction in firm value, i.e., herding behavior in corporate governance regimes. The extensive literature in finance and economics reports herding in various contexts, including among institutional investors (Sias 2004), mutual funds (Wermers 1999), analysts (Clement and Tse 2005; Welch 2000), and corporate investment decision-makers (Scharfstein and Stein 1990). However, herding in corporate governance regimes has so far been overlooked. We provide novel evidence of firms mimicking the compliance behavior of other leading firms in their sector. The negative consequences of herding are consistent with the notion that herding typically takes place among less sophisticated agents (in this case, firms).

Third, we contribute the literature on how directorship markets function (Knyazeva, Knyazeva, and Masulis 2013; Levit and Malenko 2016). Our unique empirical setting identifies how directorship markets absorb a rapid increase in demand. We find this occurs through an increase in the supply of less qualified directors and eventually results in lower firm value. We illustrate that firms appointing other firms' current executives do not experience a reduction in firm value. This contributes to the body of work on the positive valuation effects of CEO director appointments (e.g., Fahlenbrach, Minton, and Pan, 2011; Fich, 2005, Fahlenbrach, Low, and Stulz, 2010).

Fourth, our setting also contributes to policy making in international corporate governance and financial markets. Japan is an unusual country with both few outside directors prior to the Code and a well-developed stock market (Kim and Nofsinger, 2005). For example, in Cyprus which has less developed financial markets, most firms did not comply with an equivalent code due to absence of market pressure (Krambia-Kapardis and Psaros, 2006). Japanese firms, on the other hand, receive considerable market pressures similar to the UK. In contrast to the UK, however, Japan's less developed directorship market has contributed to a decline in aggregate firm value. Furthermore, we find that foreign investors as 'exporters' of best practices have mitigated the negative consequences 'importers' of such practices face. . Therefore, the main policy implication of our study is that the one-size-fits-all regulation does not work even when it is voluntary. Our study identifies various factors that influence the effectiveness of governance regulation such as the roles of the directorship market and of investors who understand of the voluntary spirit of comply or explain regimes.

The rest of this paper is organized as follows. Section 2 provides policy background on the Japanese corporate governance. Section 3 develops the hypotheses, presents the empirical design and introduces the data and descriptive statistics. Section 4 presents the main empirical findings and Section 5 concludes.

2. Background

Broadly speaking, empirical support for the comply-or-explain governance approach is ample.² Some studies still point out several shortcomings, however. First, research evidence shows that complying firms often do so more in 'form' than in 'substance' (Krenn, 2014), and non-complying firms use standard 'boilerplate' statements (Arcot, Bruno and Faure-Grimaud, 2010), possibly due to unenforceability of such regulations. Second and more closely related to our paper, recent studies point out that country-level factors can mitigate the effectiveness of voluntary codes (Cuomo, Mallin, and Zattoni, 2016; Krambia-Kapardis and Psaros, 2006; Price, Román, and Rountree, 2011). We extend this literature by introducing a so far

² Some studies report that such approaches increase firm value. See, for example, Goncharov, Werner and Zimmermann (2006) in Germany; Fernández-Rodríguez, Gómez-Ansón and Cuervo-García (2004) in Spain; Dahya and McConnell (2007) in the UK; and Tosun (2021) in the US. In contrast, for example, Price, Román, and Rountree (2011) report no association between compliance to the voluntary governance code in Mexico and firm performance.

underexplored factor based on rich variations in one country: the herding incentive to comply in the tight directorship market as well as considerable stock market pressures. To do this, we need to learn more about the Japanese context.

As in other countries, accounting and governance scandals in Japan have encouraged policy discussions on issues such as board independence. In 2011, Japan experienced two consecutive accounting scandals: the Olympus Corporation scandal in July and the Daio Paper Corporation scandal in September. These events led to widespread international concerns about the quality of Japanese corporate governance, which, in turn, stimulated a policy debate on board independence. At this time, still about half of Japanese firms had no outside directors.

These international concerns naturally encouraged the government to follow or import international governance standards. The Financial Services Agency and the Tokyo Stock Exchange set up a committee in 2014 to introduce a corporate governance code by the early to mid 2015. At the first meeting in August 2014, the committee referred to the OECD Principles of Corporate Governance and governance codes in three countries of the UK, Germany, and France. The committee finalized the Code in March 2015, and it came into force in June 2015.³

In May 2015, a concurrent requirement came into force, which required firms to appoint at least one outside director. If firms chose not to make this appointment, they had to explain their reasons at the general shareholders' meetings.⁴ The law also introduced the audit and supervisory committee system in 2015. This is an elective framework, and the adoption rate in 2017 was 24% in our sample. If a firm adopts it, the firm must place an audit and supervisory committee inside its board. At least three directors need to be on this committee and a half of them must be outside directors. These directors monitor other directors. Non-committee

³ In fact, the Code was part of a larger policy package introduced by former Prime Minister Shinzo Abe including changes in macroeconomic policy (informally referred to as *Abenomics*). The code consists of five General Principles, 30 Principles, and 38 Supplementary Principles: thus 73 items in total. All publicly listed firms are mandated to comply, or explain their non-compliance, with all the five General Principles. In contrast, only firms listed on the first or second sections of the TSE are subject to the remaining 68 principles. Compliance or lack thereof must be reported in the corporate disclosures that firms file annually following their annual shareholder meetings.

⁴ More precisely, the requirement applied only to 'large firms,' defined as having a stated capital of 500 million Yen or liabilities of 20 billion Yen. Almost all firms in our final sample are classified as 'large firms.'

member directors can engage in decision making similar to executives in the US context. Thus, the framework encourages firms to separate management and monitoring inside the board.⁵

Two features make our research setting unique. First, the Japanese government introduced the Code when firms had few outside directors in a country with a larger stock market in terms of both total market capitalization and the number of firms than London Stock Exchange. In the UK, Dahya, McConnell and Travlos (2002) report that 35.3% of directors were outsiders prior to the issuance of the Cadbury Report in 1992. The ratio was as low as 13.8% in Japan prior to the Code. This comparison implies that the supply pool of outside directors in Japan is more limited than in the UK.

The second feature is the presence of foreign investors. In our context, they can be seen as ‘exporters’ of governance regulations and should understand the spirit of these regulations better than domestic investors. In 1990, 40% of Japanese listed firms’ stocks were owned by financial institutions and only 5% by foreign investors. The collapse of the asset price bubble in the early 1990s and a banking crisis in the late 1990s resulted in a substantial reduction in shareholdings by the former and an increase by the latter. Foreign investors held 30% of market shares prior to the introduction of the Code. This implies that our sample has an important variation for our purpose: some firms have exporters and others not.

3. Research Design

3.1. Hypothesis Development

Our two hypotheses are concerned with board independence and its effect on firm value, respectively. The Code clearly stipulates the requirement to have at least two outside directors on the board. In the Japanese context where most companies did not have any or had only one outside director prior to the introduction of the Code and were exposed to considerable market pressures, this can only mean that we should expect the number/ratio of outside directors to increase following its legislation.

⁵ Dating back to 2003, the law introduced the ‘three designated committees’ framework. Target firms must set up committees for nominations, compensation, and audit. The adoption rate of this system was low, less than 2%, possibly due to the high hurdle of setting up three committees.

A voluntary code, by its very nature, means that most companies may not choose to comply with it. However, given the Japanese institutional context, we do not expect this to be the case *ex ante*. Herding theories support our expectation.⁶ They suggest that less experienced agents tend to herd (e.g., Chevalier, and Ellison 1999; Hong, Kubik, and Solomon, 2000). The Japanese setting with few outside directors satisfied this condition for herding to occur. We choose industry as the unit of herding (Choi and Sias 2009; Celiker, Chowdhury, and Sonaer 2015) due to the similarity in business environments in the herding group. Furthermore, we can test our prediction to compare firms with zero or one outside directors before the introduction of the Code. This argument leads to the following hypothesis:

H₁: Percentage of outside directors increases following the introduction of the Code. This tendency is stronger when 1) peers in the same industry comply; and 2) firms have no outside directors.

As we expect the voluntary nature of the Code to lead to overcompliance, we should also observe a decline in firm value when the firm appoints outside directors in response. Such decisions are likely knee-jerk reactions to the regulatory change or herding and not driven by company fundamentals. As such, it is not likely to increase shareholder value. This negative effect should be large among non-T12 firms because they are not the direct target of the Code and their compliance is largely determined by herding incentives. Therefore, strictly speaking and apart from the herding, there is no good reason for these firms to comply with the Code en masse. Foreign investors should mitigate the decline in firm value because of their previous exposures to regulations imported by the Japanese government. Therefore:

H₂: Firm value decreases following compliance to the Code, and this reduction is larger among non-T12 firms and those with low foreign ownership.

⁶ This interpretation of herding is somewhat different from the one used in the mutual fund literature. Generally speaking, as Effinger and Polborn (2001) argue, there are two strands to the herding literature: 1) non-strategic, and 2) strategic. In the former strand (e.g., Bikhchandani et al., 1992; Bulow and Klemperer, 1994; Banerjee, 1992), “the agents’ payoffs depend only on whether they chose the ‘right’ or the ‘wrong’ action. In the latter (e.g., Brandenburger and Polak, 1996; Scharfstein and Stein, 1990), agents are not interested in the ‘real’ payoff of their actions, but in their next period value which is determined by the market” (in our case, the stock market as well as their standing with the regulator and the government more broadly). We argue that the herding observed in the mutual fund literature is of the former type and that observed in our setting among companies is of the latter type.

3.2. Empirical Design

Unlike general studies on corporate governance that often face the problem of endogeneity, studies on regulatory settings can use changes in regulation as an exogenous shock to corporate information environment to avoid self-selection issues (e.g., Atanasov and Black, 2016). However, the regulatory approach faces challenges as new rules often arrive with changes in institutional settings, following an economic crisis or a major corporate scandal. For instance, the Asian crisis of 1997 was followed by introduction of a corporate governance regulation in Asian countries, namely, Hong Kong, Indonesia, Malaysia, the Philippines, Singapore, South Korea, Taiwan and Thailand (Nowland 2008). Having said that, we have no good reason to suspect similarly significant or systemic changes in the institutional settings of the Japanese corporate sector during the past few years prior to the introduction of the Code.

The Japanese setting can test behavioral responses directly through compliance and indirectly through herding. The shock can divide firms into the treatment and control groups based on the pre-reform number of outside directors of individual firms. Apart from herding incentives, the Code should affect only “treated” firms’ incentive to appoint outside directors; firms that had zero or one outside director prior to the reform. This standard incentive should not change the incentive of firms with two or more outsiders on their boards. We can infer that treated firms’ appointment of outsiders after the reform is exogenously caused by the introduction of the Code, not endogenously determined by other third factors. The distinction between T12 and non-T12 firms provides a further opportunity. The former is the direct target, while the latter not. Therefore, compliance among the latter, if any, is likely to be driven by herding incentives rather than the direct effect of the Code.

We use an Instrumental Variable (IV) approach with firm fixed effects in our empirical design. This allows us to examine the link between appointment of outside directors, induced by the introduction of the Code or herding, and firm value. We also choose a firm fixed effect model instead of a difference-in-differences model. The former can compare mean differences of firm value between 2+ year periods before the introduction of the Code and 2+ year periods after the introduction. In contrast, the latter generally compares a change in their firm value between one year before the introduction and the year of the introduction. Thus, the former model can exploit more information from longer data periods to control for time-invariant, firm-level heterogeneity.

Formally, one of our instruments reflects policy pressure from the introduction of the Code and another herding. To construct the former instrument, we use two variables. The first is a treatment variable which takes the value of one if the number of outside directors is less than two prior to the reform. The second is a dummy variable that takes the value of one after the reform. We choose fiscal year of 2014 as the timing of the effective introduction of the code. Firms with fiscal year ending in March, which consist of 74% of firms in our sample, generally have their annual shareholder meeting in June, and this is the same timing as the implementation of the Code.

The first instrument that captures the direct incentive of compliance is the intersection of the first and second variables. This instrument exhibits a cross-sectional variation, either zero or one, only after the introduction of the code. It takes a value of zero before the Code for all firms. We do not interact a T12 dummy with this instrument to capture the potential incentive of herding among the non-target firms. We first identify the change in board structures through the introduction of the Code and then regress Tobin's Q on the percentage of outside directors in an IV setting. We estimate the parameters of the following two equations:

$$OutDirec_{it} = \alpha_i + \beta_1 Treat_i * After_t + \gamma X_{it} + \eta_t + \epsilon_{it} \quad (1)$$

$$Q_{it} = \alpha'_i + \beta_2 \widehat{OutDirec}_{it} + \gamma' X_{it} + \eta'_t + \epsilon'_{it}, \quad (2)$$

where indexes i and t respectively indicate firm and fiscal year, $OutDirec_{it}$ is the percentage of outside directors, $Treat_i$ is one if the firm is in the treatment group, $After_t$ is one if after the reform, X_{it} includes control variables, Q_{it} is the Tobin's Q, $\widehat{OutDirec}_{it}$ is the fitted value of $OutDirec_{it}$ from regression (1), η_t is year dummies, α_i is firm-fixed effects, and ϵ_{it} is error terms. Standard errors are clustered at the firm level. We use the two-stage least squares for estimation.

An alternative specification can identify the effect of herding more clearly. We define a lagged variable for industry compliance: IC_{jt-1} where j refers to industries. This is the lagged average compliance rate of the industry-year after the Code. More precisely, it represents the ratio of firms which comply with the Code in year t in a particular industry. It takes a value of zero

before the introduction of the Code for all firms. The positive association between this variable and compliance can be interpreted as evidence for industry-level herding, i.e., a firm complies to the Code because many of its industry peers complied in the previous year. The equation for the first stage is represented by:

$$OutDirec_{it} = \alpha'_i + \beta'_1 Treat_i * After_t + \beta'_2 Treat_i * IC_{jt-1} * After_t + \gamma' X_{it} + \eta'_t + \epsilon'_{it} \quad (3)$$

In this equation, we include both the interaction, $Treat_i * After_t$, and the triple-interaction, $Treat_i * IC_{jt-1} * After_t$. We can interpret β'_2 as the effect of industry-level herding after controlling for the direct incentive of compliance measure by β'_1 . In other words, this specification can separately estimate compliance and herding behaviors.

3.3. Data

We use data provided by Nikkei NEEDS FinancialQUEST and Executive Data respectively covering financial and governance information of Japanese public firms. The sample runs from 2010 to 2017 with balanced structures. The sample includes those listed on the first section (T1) of the TSE, on the second section (T2), other sections of the TSE and finally those listed in other Japanese exchanges apart from the TSE such as Nagoya, Fukuoka, or Sapporo Stock Exchanges. We evaluate the section where the firm lists its stock as of 2013, one year ahead of the effective introduction of the Code, when performing subsample analyses to use a within-firm variation across same firms. We winsorize the variables at the 1% level.

Table 1 shows the summary statistics, and Table 9 shows all variable definitions. The sample size of 19136 with 2392 firms⁷ is considerably larger than equivalent samples in studies examining other countries with comply-or-explain rules. For example, an equivalent sample is 122 in a study on Germany (Goncharov, Werner and Zimmermann, 2006); 57 in a study on Spain (Fernández-Rodríguez, Gómez-Ansón and Cuervo-García, 2004); and 518 in a study on Mexico (Price, Román, and Rountree, 2011). In fact, this number of firms is over twice as large as that in the UK (Dahya, McConnell and Travlos 2002; Dahya and McConnell 2007). This large size has the potential to affect the directorship market given the rapid increase in the

⁷ Although the number of public firms is over 3000 in Japan, our sample includes 2392 firms because of the balanced panel structure.

number of outside directors demanded in a relatively short period of time. This also enables us to run various subsample analyses to better understand the effect of such regulations.

~ Table 1 about here ~

Figure 1 shows a change in board structures (Panels 1A and 1B) and the compliance rates (Panel 1C) by section. We observe a considerable compliance among T12 firms in Panel 1C; the rates were 95% among T1 firms and 82% among T2 firms in 2017. Interestingly, the 'compliance' rates among non-target firms increased to 57% in 2017. This time-series change among them after the Code is noticeable given the subtle changes prior to the Code.

~ Figure 1 about here ~

Panel 1B does not necessarily support the notion that outside directors can play more important roles after the Code. Although the average board independence doubled from 14% in 2013 to 28% in 2017, outside directors still do not occupy the majority or even one-third of the board seats. This post-reform percentage is lower than that in the UK prior to the publication of the Cadbury Report in 1992 (Dahya, McConnell and Travlos 2002).

4. Empirical Findings

4.1. Baseline Results

Table 2 presents the first stage estimation results. The results unambiguously show that following the introduction of the Code, the proportion of outside directors in the board has increased significantly among the treated firms - at the 1% level for both $Treat_i * After_t$ and $Treat_i * IC_{jt-1} * After_t$. These interactions imply the presence of compliance and industry level herding, respectively.

~ Table 2 about here ~

Next, we investigate the negative impact the rise in the percentage of outside directors has on firm value, with results reported in Table 3.⁸ Each column reports the second stage estimation result that corresponds to the first stage estimation in Table 2. We observe the negative impact at the 1% level in both specifications. The findings are economically significant. A 20% increase in the percentage of outside directors reduces Tobin's Q by 0.1. Bearing in mind Fauver et al. (2017)'s finding that introducing comply-or-explain increases Tobin's Q by 0.2, our results suggest that the negative effect in Japan is large enough to reverse the sign of the effect. The overidentification test in columns (2) supports our premise that the exclusion restrictions are not violated. Among other variables, we notice that foreign ownership has a significant and positive impact on Tobin's Q. We will examine the role of foreign shareholders in sub-sample analyses later in Table 5.

It is worth noting that although the Fauver et al. study was published in 2017, it only covers data until 2012 and therefore misses the major governance reform in Japan introduced in 2014. Also, comparatively speaking, their paper has 111,932 global firm-year observations of which 14,385 (around 13%) belong to Japan. This is a sizable proportion of the sample. Thus, we speculate that if their study was to be replicated at present, the findings would be inconclusive the Japanese evidence we document in this study.

~ Table 3 about here ~

4.2. Board Independence and Firm Value in Different Market Sections

Now we turn our attention to the different market sections present in the sample to compare the target and non-target firms. Table 4 shows these effects clustered by market section: T1, T2, T12, and non-T12 firms. The magnitudes of the coefficient on $Treat_i * After_t$ in the first stage regression are almost identical across target and non-target firms in columns (3) and (4). This suggests that the Code affected all firms' board structures, irrespective of whether they are the explicit policy target or not.

⁸ Unreported tables shows similar results when we use the number of outside directors or the compliance dummy as the regressor, instead of the percentage of outside directors. Our paper focuses on the percentage of outside directors due to its popularity in the literature.

~ Table 4 about here ~

We observe a large difference on the coefficient of the triple interaction term: 8.544 among T12 firms and 13.512 among non-T12 firms. This finding supports the notion that non-target firms have stronger tendency to comply through herding than target firms. While we notice a reduction in firm value across the board, the negative effect is larger among non-T12 firms than T12 firms. This finding implies that herding in governance mechanisms hurts firm value, in line with the herding theories.

4.3. Firm Attributes, Value and Board Independence

We also conduct sample-split analyses in Table 5 clustered by firm attributes: the median of foreign ownership, retail ownership, firm size (measured by assets), and R&D expenses. In particular, a comparison between firms with high and low ownership shares by foreign investors can provide direct evidence for our arguments about consequences of imported best practices. On one hand, they may put pressure for Japanese firms to follow international best practices and comply with the Code. On the other hand, they may not choose this strategy because they know the value of non-compliance as exporters of such best practices.

~ Table 5 about here ~

Firm value has declined only among firms with low foreign ownership in column (1) and not among others in column (2), in line with the latter prediction in the previous paragraph. The first stage regression provides support from the herding perspective. The coefficients of the interaction, $Treat_i * After_t$, are close across these two columns, while those on the triple interaction, $Treat_i * IC_{jt} * After_t$, are different in these columns: firms with high foreign ownership are less likely to be affected by industry-level herding. Columns (3) and (4) provide evidence from the perspective of retail shareholders, who are likely to be domestic investors. The results are essentially similar with those based on foreign shareholders: firms with high retail ownership (i.e., low foreign ownership) reduced firm value more and reacted more to the industry-level compliance than those with low retail ownership.

The sample-split based on firm size and R&D intensity provides further insights. The reduction in firm value is larger when firms are smaller and more R&D-intensive. This finding suggests

that compliance exerts a particularly large negative effect on firms in their growth phase. In other words, these are the firms that should not prioritise compliance with the voluntary code and instead should focus on their investments and attention on their complex growth journeys. This finding is in line with Balsmeier, Fleming, and Manso (2017) reporting that outside directors discourage explorative innovation. It is also consistent with Masulis and Mobbs (2014) implying that small firms, which entails lower reputation in directorship markets, cannot attract qualified directors or induce their efforts.

4.4. Experience in the Appointment of Outside Directors

We exploit the pre-code variation in the number of outside directors to measure the experience level of appointed directors. Although most Japanese firms had less experience relative to those in the US or the UK, the Japanese setting provides a variation to test the prediction on whether experience induces herding possibly with negative consequences. Among the treated firms, some firms had no outside directors and others had one outside director. We hypothesize that the former herds and reduces firm value more than the latter due to less experience.

In Table 6, we have changed the composition of the treatment group. The odd numbered columns include only those with no outside directors as of 2013 (i.e., excluding firms with one outside director) in the treatment group and even numbered columns include only those with one outside director. Columns (1) and (2), which include all the firms, do not show differences either in terms of herding or firm value. On balance, the hypothesis is not supported.

~ Table 6 about here ~

Once we separate the sample into T12 and non-T12 firms, we find a contrasting pattern. Treated firms with one outside director reduced firm value among T12 firms in column (4), while those with no outside directors reduced it among non-T12 firms in column (5). In addition, the coefficient of the triple interaction term of the first stage regression is the largest in column (5) across all the columns. They suggest that a lack of experience and associated herding is the primary channel for non-target firms to reduce firm value.

4.5. Director Attributes, Value and Board Independence

The Japanese setting also provides an opportunity to test the functioning of the supply side of the directorship market. The scarce supply of potential outside directors and a rapid increase in the demand, partly due to the large number of listed firms in Japan, suggests that appointing qualified outside directors should be difficult. The question is how the directorship market clears the demand and supply.

We use two measures of the quality of outside directors. The first is a CEO position. Prior literature measures the quality of board advice using the connections that a director has with other firms at any given time. The focus is often on such connections because they arise when a director has qualities that make them valuable to many firms as CEO directors (see, Coles, Daniel, and Naveen, 2012; Nguyen, Hagendorff and Eshraghi, 2017; Fich 2005). The second is a directorship position of another firm. The literature reports board busyness hurts firm value (Falato, Kadyrzhanova and Lel 2014).

Table 7 shows the results by director characteristics and which firms did not reduce their firm value. We find that this reduction in firm value is smaller, which is statistically undistinguishable from zero, when the firm appointed CEO outside directors as of 2017. In other words, outside directors with more expertise, information and networks are a better investment for the firm, and this is sufficient to counteract the negative impact as previously discussed. Similarly, firms that did not appoint outside directors with other directorship positions do not reduce firm value.

~ Table 7 about here ~

This table also provides direct evidence about a source of the reduced firm valuation. We find that firms that appointed former CEOs reduced firm value. The worse situation is when firms could appoint neither current nor former CEOs. In addition, we find a large reduction in firm value when firms appointed former directors. The reduction of firm value is not largely different when firms appointed current or former outside directors possibly because the appointment of current directors involves costs from their busyness.

Figure 2 illustrates the functioning of the directorship market behind these findings graphically. After the Code, we observe almost no changes in the percentage of firms with current CEO directors. In contrast, firms that appointed former CEO directors, current or former outside directors increased rapidly. They suggest the directorship market cleared against a sudden increase in the demand through an increase in the supply of less qualified directors without a change in the qualified ones.

4.6. Placebo Test

We run a placebo test to find the sensitivity of the results to the year the reforms were introduced. Using eight-year periods in each specification, we have four years both before and after the reform. We assume that the reforms were implemented hypothetically in 2008 or 2009 to avoid including periods after the introduction of the Code. As expected, the results in Table 8 do not indicate significant link between the percentage of outside directors and firm value, except for column (2) marginally significant at the 10% level.

~ Table 8 about here ~

5. Conclusion

Recent corporate governance scandals such as Petrobras in Brazil, Deutsche Bank and Volkswagen in Germany, and Toshiba in Japan continue to drive the debate on the best form of governance to mitigate corporate misconduct and increase firm value. Among the large family of corporate governance approaches, voluntary codes in the form of comply-or-explain have found increasing acceptance across the world. This paper provides empirical evidence on the causal effects of voluntary regulation on market outcomes – an underexplored area of the literature as discussed in, e.g., Leuz and Wysocki (2016) and Poshakwale, Aghanya, Agarwal (2020). Unlike studies that often face the problem of endogeneity, studies on regulatory settings can use changes in regulation as exogenous shock to the corporate information environment of the firm to avoid self-selection issues.

Drawing on the recent Japanese experience with voluntary codes of corporate governance, we identify another area where comply-or-explain regimes may fail to be effective, or in Japan's case, have a negative effect. That is when, due to limited experience, most listed firms choose

to comply, although they do not have to, and even though this comes at the cost of lower shareholder value. Limited supply in the directorship market further contributes to the decline in firm value.

Our study contributes to the corporate governance literature by 1) extending the body of work on the impact of voluntary corporate governance codes on board independence and firm value (e.g., Cuomo, Mallin, and Zattoni, 2016); 2) adding to the literature on herding in explaining corporate finance and governance outcomes; 3) showing that firms appointing other firms' CEOs can mitigate the associated reduction in firm value; and 4) identifying foreign shareholders' disciplinary roles for encouraging non-compliance, not necessarily compliance, of voluntary rules. Our study also brings a policy implication against a one-size-fits-all regulation even when it is voluntary. We have identified various factors affecting the effectiveness of governance regulation including the role of the directorship market and that of investors who understand of the voluntary spirit of such regulations.

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Figure 1. Board Composition and Compliance Rate

These figures show the change in the board composition and the compliance rate (i.e., the percentage of firms that have at least two outside directors) among all firms, firms that list their stocks on the first section of the Tokyo Stock Exchange (TSE-1st firms), TSE-2nd, and other firms between 2003 and 2017.

Figure 1A. Number of Outside Directors

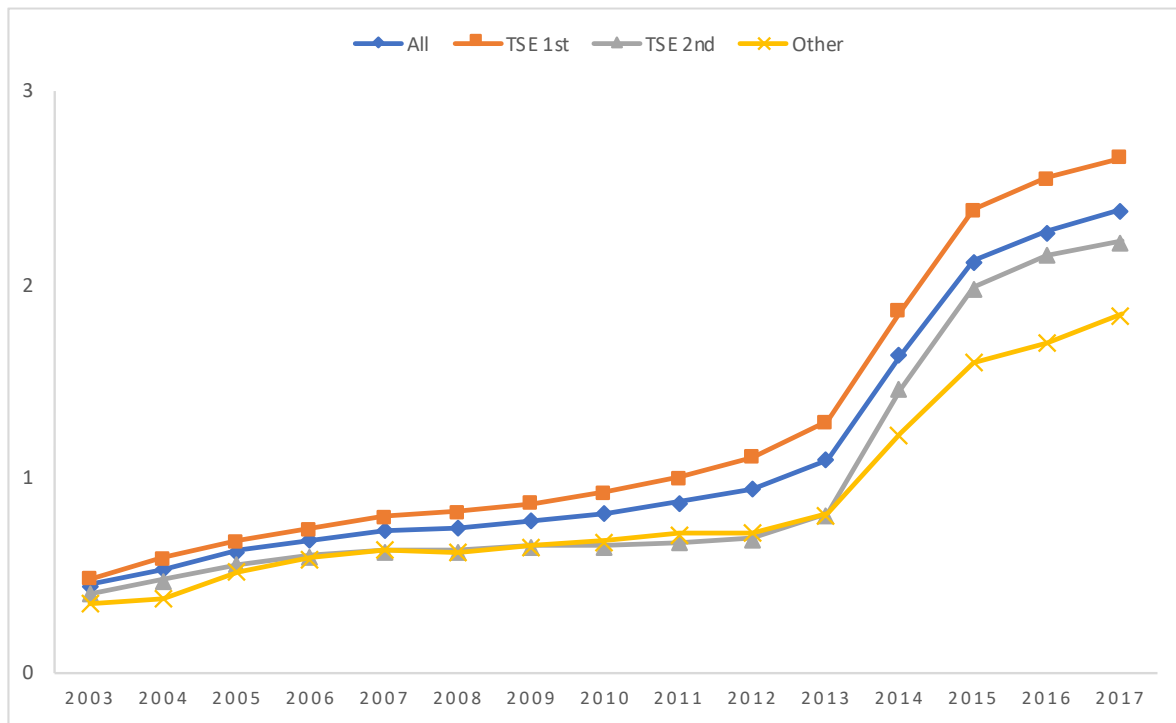


Figure 1B. Percentage of Outside Directors (i.e., Board Independence)

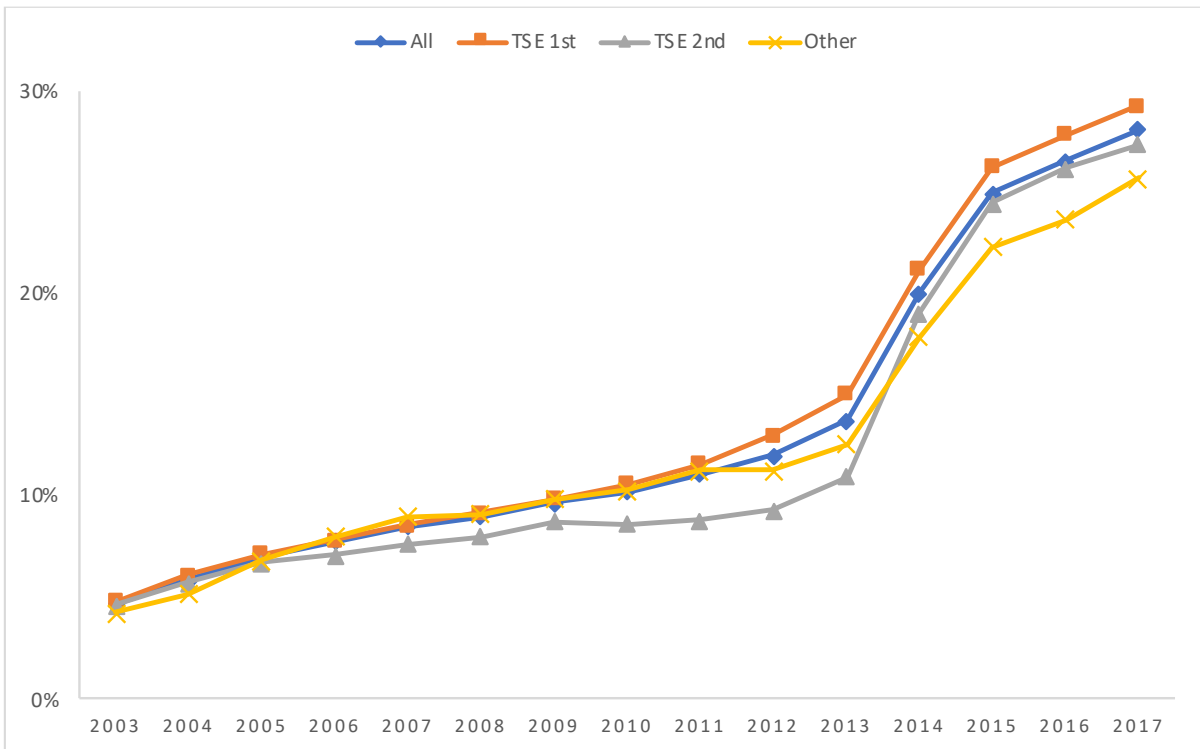


Figure 1C. Compliance Rate

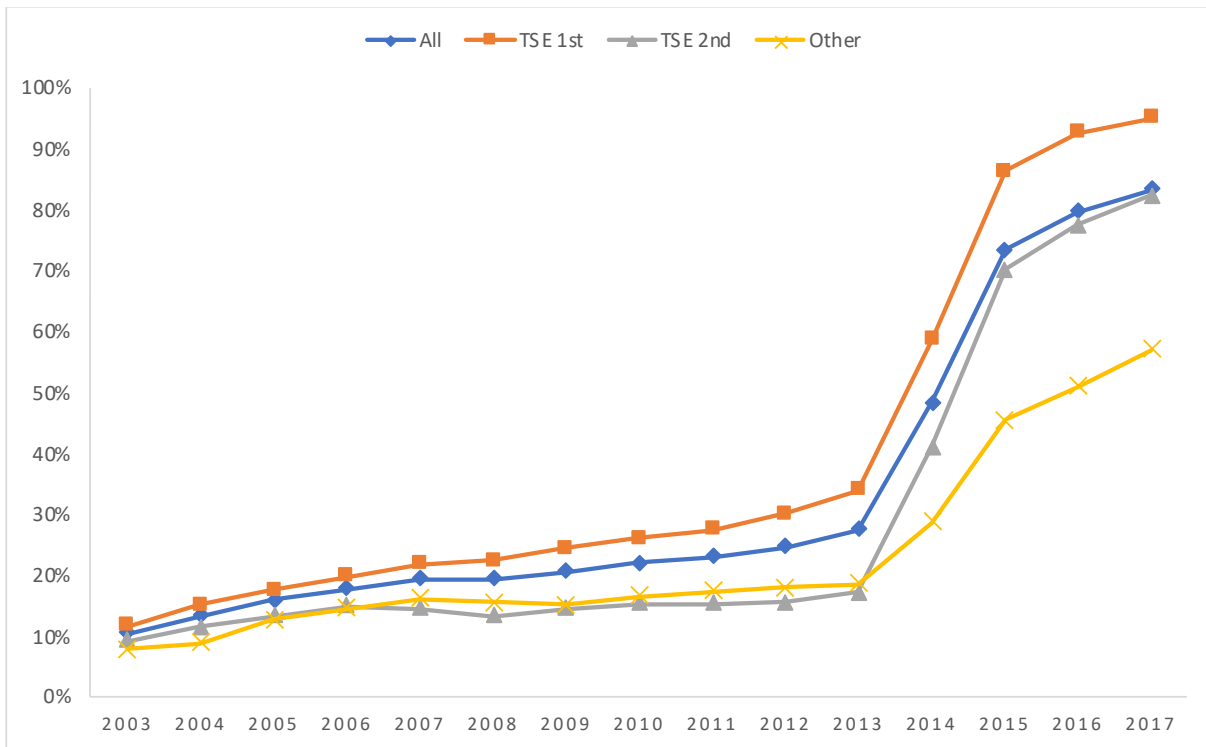


Figure 2. Director Attributes

This figure shows the change in the director attributes on the board between 2003 and 2017. “Current CEO” and “Former CEO” refer to the percentage of firms that have an outside director that serves as a current or former CEO of another firm, respectively. “Current outside director” and “Former outside director” refer to the percentage of firms that have an outside director that serves as a current or former director of another firm, respectively.

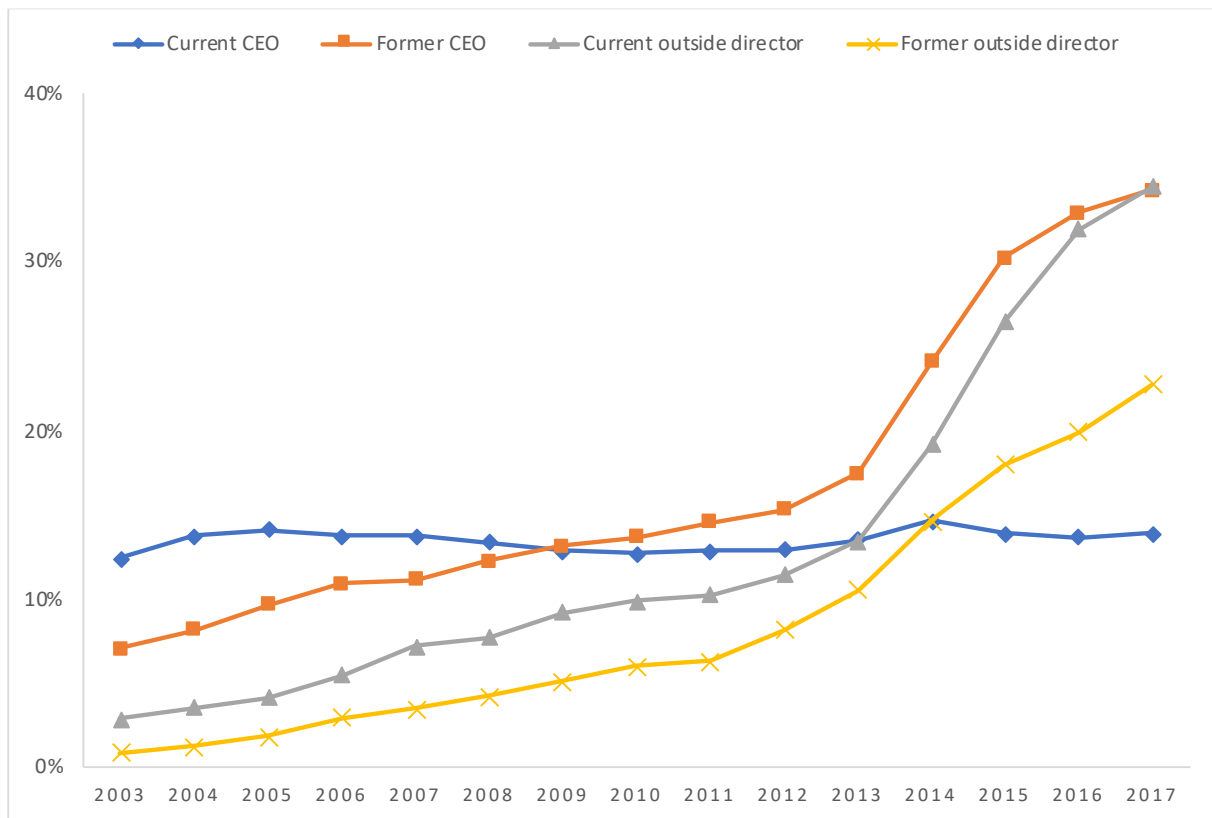


Table 1. Summary Statistics

This table reports summary statistics for the entire sample from 2010 to 2017. See Table 9 for variable definitions and data sources.

	Mean	SD	p1	p25	Median	p75	p99	N
Tobin's Q	1.111	0.582	0.498	0.808	0.957	1.191	3.784	19136
Percentage of outside directors	18.331	14.890	0.000	0.000	16.667	28.571	60.000	19136
Treatment	0.725	0.447	0.000	0.000	1.000	1.000	1.000	19136
Industry compliance (IC) rate	0.467	0.258	0.108	0.247	0.396	0.739	0.909	19136
Treatment * Industry compliance	0.198	0.293	0.000	0.000	0.000	0.412	0.843	19136
Tangibility	0.292	0.186	0.006	0.154	0.272	0.401	0.815	19136
Leverage	0.508	0.213	0.105	0.346	0.503	0.661	1.022	19136
Capex (to assets ratio)	0.040	0.039	0.000	0.013	0.030	0.055	0.199	19136
R&D (to assets ratio)	0.013	0.021	0.000	0.000	0.004	0.018	0.107	19136
Cash flow (to assets ratio)	0.063	0.052	-0.130	0.038	0.061	0.088	0.218	19136
Size	10.852	1.658	7.515	9.727	10.676	11.822	15.265	19136
Firm age	56.214	24.359	7.000	39.000	60.000	70.000	115.000	19136
Export (to sales ratio)	0.171	0.258	0.000	0.000	0.000	0.298	0.965	19136
Foreign ownership (%)	11.101	12.170	0.000	1.236	6.397	17.817	49.022	19136
Financial institution ownership (%)	18.236	12.343	0.129	7.971	16.556	27.254	47.871	19136
Retail ownership (%)	41.793	20.846	6.691	25.183	39.468	56.041	90.538	19136
Audit & supervisory committee	0.087	0.282	0.000	0.000	0.000	0.000	1.000	19136
Three designated committee	0.017	0.127	0.000	0.000	0.000	0.000	1.000	19136
Number of total directors	8.259	2.936	3.000	6.000	8.000	10.000	17.000	19136
Current CEO director	0.135	0.341	0.000	0.000	0.000	0.000	1.000	19136
Former CEO director	0.228	0.419	0.000	0.000	0.000	0.000	1.000	19136
Current outside director	0.196	0.397	0.000	0.000	0.000	0.000	1.000	19136
Former outside director	0.133	0.339	0.000	0.000	0.000	0.000	1.000	19136

Table 2. Percentage of Outside Directors

This table illustrates the change in the percentage of outside directors following the reforms. These analyses serve as the first stage of the IV estimation. Standard errors are clustered at the firm level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Percentage of outside directors	
	(1)	(2)
Treatment * After	10.044*** (0.444)	4.740*** (0.517)
Treatment * IC * After		9.770*** (0.809)
Tangibility	-4.203* (2.342)	-4.244* (2.316)
Leverage	-0.776 (1.266)	-0.851 (1.255)
Capex	0.251 (3.107)	0.210 (3.092)
R&D	-1.351 (15.419)	-0.930 (15.476)
Cash flow	0.561 (2.498)	0.529 (2.489)
Size	-0.530 (0.749)	-0.497 (0.742)
Firm age	1.084*** (0.074)	0.864*** (0.081)
Export	-0.487 (1.071)	-0.528 (1.060)
Foreign ownership	0.099*** (0.036)	0.095*** (0.036)
Financial institution ownership	-0.021 (0.035)	-0.014 (0.035)
Retail ownership	-0.022 (0.025)	-0.020 (0.025)
Audit & supervisory committee	11.736*** (0.494)	11.547*** (0.491)
Three designated committee	16.268*** (1.928)	16.712*** (1.880)
Number of total directors	-0.476*** (0.075)	-0.482*** (0.074)
Firm fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
F of the excluded instruments	510.24	269.34
Observations	19136	19136

Table 3. Impact of Reforms on Firm Value

This table reports the impact of the rise in the percentage of outside directors on firm value. Standard errors are clustered at the firm level and reported in parenthesis. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Tobin's Q	
	(1)	(2)
Percentage of outside directors	-0.005*** (0.002)	-0.005*** (0.002)
Tangibility	-0.439*** (0.134)	-0.439*** (0.134)
Leverage	0.368*** (0.078)	0.368*** (0.078)
Capex	0.156 (0.151)	0.156 (0.151)
R&D	-0.088 (0.982)	-0.090 (0.982)
Cash flow	1.118*** (0.172)	1.118*** (0.172)
Size	-0.092 (0.060)	-0.092 (0.060)
Firm age	0.051*** (0.006)	0.051*** (0.006)
Export	0.058 (0.051)	0.058 (0.051)
Foreign ownership	0.007*** (0.002)	0.007*** (0.002)
Financial institution ownership	0.015*** (0.002)	0.015*** (0.002)
Retail ownership	-0.005*** (0.001)	-0.005*** (0.001)
Audit & supervisory committee	0.079** (0.032)	0.078** (0.032)
Three designated committee	-0.185 (0.189)	-0.186 (0.189)
Number of total directors	0.000 (0.003)	0.000 (0.003)
Firm fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
F of the excluded instruments	510.24	269.34
Overidentification test		0.724
Observations	19136	19136

Table 4. Sample Split by Stock Exchange Section

This table reports the results of the same regression as in column (2) of Table 3 by section (i.e., T1, T2, T12, or non-T12). Standard errors are clustered at the firm level and reported in parenthesis. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Tobin's Q			
	T1	T2	T12	Non-T12
	(1)	(2)	(3)	(4)
Percentage of outside directors	-0.004*	-0.004	-0.004**	-0.012**
	(0.002)	(0.004)	(0.002)	(0.005)
Control variables	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Observations	11296	2976	14272	4864
First stage: Percentage of outside directors				
	(1)	(2)	(3)	(4)
Treatment * After	5.250***	6.621***	5.341***	5.271***
	(0.561)	(1.462)	(0.521)	(1.597)
Treatment * IC * After	8.295***	9.925***	8.544***	13.512***
	(0.870)	(2.162)	(0.805)	(2.769)

Table 5. Sample Split by Firm Characteristics

This table reports the results of the same regression as in column (2) of Table 3 by firm characteristics. We use the median value of each variable to divide the sample. Standard errors are clustered at the firm level and reported in parenthesis. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Tobin's Q							
	Foreign ownership		Retail ownership		Size (Assets)		R&D	
	High	Low	High	Low	Large	Small	High	Low
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Percentage of outside directors	-0.004	-0.005**	-0.013***	-0.003	-0.002	-0.013***	-0.006**	-0.004
	(0.002)	(0.002)	(0.004)	(0.002)	(0.002)	(0.004)	(0.002)	(0.003)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9568	9568	9568	9568	9568	9568	9568	9568

	First stage: Percentage of outside directors							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment * After	4.681***	5.675***	4.762***	5.458***	5.557***	4.658***	4.323***	5.234***
	(0.617)	(0.929)	(1.045)	(0.591)	(0.566)	(1.006)	(0.666)	(0.778)
Treatment * IC * After	8.915***	11.502***	10.265***	8.797***	7.703***	12.764***	10.021***	9.319***
	(0.975)	(1.401)	(1.497)	(0.932)	(0.872)	(1.587)	(1.056)	(1.225)

Table 6. Experience in Director Appointment

This table changes the definition of the treatment dummy, whose treatment group included both firms with zero and one outside director as of 2013. Odd (Even) numbered columns include only firms with no outside directors (one outside director) in the treatment group. The above panel shows the second stage estimation and the below first stage estimation. Standard errors are clustered at the firm level and reported in parenthesis. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Tobin's Q					
	All firms		TSE 1st or 2nd		Non-TSE 1st or 2nd	
	Zero	One	Zero	One	Zero	One
	(1)	(2)	(3)	(4)	(5)	(6)
Percentage of outside directors	-0.005*** (0.002)	-0.006** (0.003)	-0.002 (0.002)	-0.006** (0.002)	-0.013*** (0.004)	-0.007 (0.007)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11968	12432	8704	9928	3264	2504
	First stage: Percentage of outside directors					
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	10.179*** (0.724)	0.603 (0.456)	13.309*** (0.710)	1.044** (0.458)	2.318 (1.924)	0.106 (1.410)
Treatment * IC * After	10.067*** (0.930)	8.349*** (0.720)	6.066*** (0.928)	7.608*** (0.706)	20.392*** (3.353)	12.257*** (2.741)

Table 7. Director Attributes

This table reports the estimation results of sample-split analysis based on director characteristics as of 2017. The first column consists of firms that appointed none of former or current CEOs of other firms as outside directors. The second column consists of firms that appointed former CEOs. The fourth column consists of firms that appointed none of former or current directors of other firms as outside directors. Other columns can be interpreted in the similar way. The above panel shows the second stage estimation and the below first stage estimation. Standard errors are clustered at the firm level and reported in parenthesis. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Tobin's Q					
	CEO Director			Outside Director		
	None	Former	Current	None	Former	Current
	(1)	(2)	(3)	(4)	(5)	(6)
Percentage of outside directors	-0.007** (0.003)	-0.006** (0.002)	-0.003 (0.003)	-0.004 (0.003)	-0.007** (0.003)	-0.006** (0.003)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11048	6544	2656	10496	4336	6584
First stage: Percentage of outside directors						
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	3.224*** (0.841)	6.423*** (0.755)	5.648*** (1.341)	3.735*** (0.825)	5.788*** (0.957)	5.168*** (0.769)
Treatment * IC * After	11.945*** (1.329)	8.381*** (1.157)	8.708*** (1.848)	11.845*** (1.316)	8.341*** (1.378)	9.189*** (1.179)

Table 8. Placebo Test

This table uses 2008 and 2009 as the hypothetical (placebo) year of the reform. We use eight-year periods in each specification so that we have four years both before and after the reform. We do not find any significant relation between the percentage of outside directors and firm value. Standard errors are clustered at the firm level and reported in parenthesis. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Hypothetical year of the reform	Tobin's Q			
	2008		2009	
	(1)	(2)	(3)	(4)
Percentage of outside directors	-0.007 (0.010)	-0.014* (0.008)	-0.005 (0.020)	-0.007 (0.008)
Other control variables	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
First stage F-value	13.32	11.69	1.92	7.94
Observations	18112	18112	18595	18595
	First stage: Percentage of outside directors			
	(1)	(2)	(3)	(4)
Treatment dummy	-1.696*** (0.464)	-2.760*** (0.571)	-0.614 (0.442)	-1.984*** (0.552)
Treatment * IC * After		5.172*** (1.895)		6.321*** (1.779)

Table 9. Definition and Data Sources

	Definition	Data (all from the Nikkei)
Tobin's Q	Market capitalization plus total liabilities divided by book value of total assets	FinancialQUEST
Percentage of outside directors	The percentage of outside directors to total directors	Executive Data
Treatment	Takes one if the firm had less than two outside directors in 2013	Executive Data
Industry compliance (IC) rate	Lagged compliance rate of the Code among firms in a certain industry	Executive Data
Tangibility	Tangible assets divided by lagged total assets	FinancialQUEST
Leverage	Total liabilities divided by lagged total assets	FinancialQUEST
Capex (to assets ratio)	Capital expenditures divided by lagged total assets	FinancialQUEST
R&D (to assets ratio)	R&D expenses divided by lagged total assets	FinancialQUEST
Cash flow (to assets ratio)	Operating earnings plus depreciation divided by total assets	FinancialQUEST
Size	Natural logarithm of total assets	FinancialQUEST
Firm age	Year since the establishment of the firm	FinancialQUEST
Export (to sales ratio)	Exports divided by lagged sales	FinancialQUEST
Foreign ownership	The share of stocks held by foreign investors in percentage	FinancialQUEST
Financial institution ownership	The share of stocks held by financial institutions in percentage	FinancialQUEST
Retail ownership	The share of stocks held by retail investors	FinancialQUEST
Audit & supervisory committee	Takes one if the firm adopts the audit & supervisory committee system	Executive Data
Three designated committee	Takes one if the firm adopts the three designated committee system	Executive Data
Number of total directors	Number of total directors	Executive Data
Current CEO	Takes one if the firm appoints a current CEO as an outside director	Executive Data
Former CEO	Takes one if the firm appoints a former CEO as an outside director	Executive Data
Current outside director	Takes one if the firm appoints a current director as an outside director	Executive Data
Former outside director	Takes one if the firm appoints a former director as an outside director	Executive Data