Tokenism in Gender Diversity among Board of Directors

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Abstract

This study examines the existence of tokenism in Japanese companies after the implementation of corporate governance reforms. We focus on the appointment of female outside directors. The existence of tokenism in corporate boards is an important issue for companies worldwide because it deals with gender diversity in the appointment of board members. Following the Abenomics policy of empowering women, Japan introduced "Japan's Corporate Governance Code" (the Code), which included board reforms such as appointing at least two outside directors. Using a quasi-natural experiment, we examine whether tokenism occurs in Japan, a country with a low female participation level in business. Empirical analysis reveals the occurrence of tokenism at the start of the Code's introduction. Companies appoint two outside directors to meet the formal requirements of the Code. They appoint a male outside director first and a female director later as a token. However, tokenism is not observed when busy female directors with a lot of experience are appointed to the board because they presumably have the expertise and skill.

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Abstract

This study examines the existence of tokenism in Japanese companies after the implementation of corporate governance reforms. We focus on the appointment of female outside directors. The existence of tokenism in corporate boards is an important issue for companies worldwide because it deals with gender diversity in the appointment of board members. Following the Abenomics policy of empowering women, Japan introduced "Japan's Corporate Governance Code" (the Code), which included board reforms such as appointing at least two outside directors. Using a quasi-natural experiment, we examine whether tokenism occurs in Japan, a country with a low female participation level in business. Empirical analysis reveals the occurrence of tokenism at the start of the Code's introduction. Companies appoint two outside directors to meet the formal requirements of the Code. They appoint a male outside director first and a female director later as a token. However, tokenism is not observed when busy female directors with a lot of experience are appointed to the board because they presumably have the expertise and skill.

1. Introduction

Tokenism in terms of gender diversity in boardrooms has become a major discussion point globally. Some institutional investors believe that including female directors helps diversify values, foster innovation, and increase shareholder value. Foreign investors have taken the initiative in demanding that companies have diverse boards. Voting criteria now include measures such as opposing the appointment of a CEO if there are no female directors.[1] However, others believe that appointing female on boards is only for "window dressing" or "tokenism" purposes rather than for adding value. Thus, the motivation for appointing female directors remains unclear.

In Japan, the "Womenomics Policy" was launched as part of the Abe Cabinet's Abenomics growth strategy (Ito and Hoshi, 2020). This policy calls for the promotion of women's employment. Female participation in the labor force to solve labor shortages has long been an issue in Japan. The inability of women to return to society after temporarily leaving the labor force for childbirth (M-shaped pattern[2]) is considered a typical problem of women in the labor force. According to Ito and Hoshi (2020), the M-shaped pattern has improved since 2015 and the number of women in the labor force has increased, leading to the conclusion that the Womenomics policy is successful, at least regarding women's labor force participation. However, the question of female leadership remains even though the policy may have been successful for female workers. The effectiveness of female directors has not been well-studied despite the fact that executive directors are at the top of the corporate hierarchy and are key to effective governance (Gillan, 2006). Japan differs from other developed countries because it has the lowest percentage of female directors in boards among the seven major countries.[3] Therefore, determining whether Japanese companies can achieve gender diversity without falling into tokenism during the rapid corporate governance reform is a research topic worth exploring.

As another policy of Abenomics growth strategy, Japan's Corporate Governance Code (the Code) was introduced in 2015. The Code, which is expected to lead to corporate growth and value enhancement, has "Responsibilities of the Board of Directors" as a core principle. This principle requires companies to appoint at least two independent directors.[4] According to the agency theory, an increase in board

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[1] This information is acquired from Nikkei 5/31/2022.

[2] The M-shaped curve refers to the phenomenon that women drop out of the labor force after childbirth, concentrate on raising their children in the family, and return to the labor force when their children grow up. After their children grow up, they return to the labor force. (Süssmuth-Dyckerhoff et al., 2012)

[3] The World Economic Forum's July 2022 Gender Gap Index, which measures the degree of gender equality, ranks Japan 116th out of 146 countries, the lowest in the East Asia and Pacific region, with significantly lower scores in the political and economic areas. Japan ranks 116th out of 146 countries in the East Asia and Pacific region, the lowest in the two areas of political and economic (https://jp.weforum.org/reports/global-gender-gap-report-2022).Western companies lead the way in this area, with the number of companies in the U.S. S&P 500 Index and the U.K. FTSE 350 Composite Index with no female directors close to zero, and women making up 30% of the total number of directors in both cases (Nikkei 2021/11/20).

[4] The Code is a "soft law" that requires companies to comply with the principles or, if not implemented, to disclose the reasons for not doing so. This differs markedly from Norway and France, where there is strong public sector

independence, as required by the Code, implies diversity in board composition. Moreover, according to the resource dependence theory, female outside directors with different backgrounds from their male counterparts can bring diverse knowledge to management decision-making. Thus, the Code calls for a more diverse boards that are different from Japanese traditional male-dominated board directors in which members are elected based on the "inter group" and "in-group" bias. In other words, advancing board diversity is supported from the perspective of maximizing firm value.

However, several challenges are associated with gender diversity. Kanter (1977) has introduced the concept of "tokenism,"[5] where substantially outnumbered women are considered symbolic figures who cannot fully exercise their abilities because of the pressures of tokenism. Having two female directors on the board is still considered tokenism because at least three female directors are required.[6]

This study investigates tokenism in the Japanese market. We use the first phase of implementation of the Code in Japan, where female representation is extremely low as a quasi-natural experiment. The results are used to confirm whether tokenism in Japan is the same as that in other countries. Japanese corporate governance is a drastic reform characterized by boards composed mainly of in-group male directors (Aoki et al., 2007). Therefore, we examine the mechanism of tokenism to determine whether the number of female outside directors have increased or whether females have been promoted as corporate directors after the introduction of the Code.

In this study, we collect Japanese board member data from the web and other sources for each company, including information on the number and proportion of board members and the attributes of all female board members. The empirical results show that tokenism occurs when appointing a second outside director; that is, the number of male outside directors increases with the appointment of a first outside director, and a female outside director is subsequently appointed as a token. In Japan, tokenism is seen at the beginning of the Code implementation.

However, tokenism is not observed among busy outside female directors. This may be because the number of busy females outside directors is limited even though they are probably highly qualified.

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regulation (Rosenblum, 2019). Note that the 2015 Code did not require board diversification through the appointment of women, and this was included three years later in the revised 2018 Code. Additionally, the legal requirement for the appointment of outside directors has been mandated by the revised Companies Act in 2019.

[5] The European Institute for Gender Equality (EIGE) defines tokenism as "A policy or practice that is mainly symbolic and involves attempting to meet one's obligations with respect to established targets, such as voluntary or mandated gender quotas, with limited efforts or gestures, especially towards minority groups and women, in a way that does not change male-dominated power and/or organizational arrangements."
(https://eige.europa.eu/publications-resources/thesaurus/terms/1261). This category includes companies that appoint female outside directors to meet the requirements, but have not changed their male-dominated board composition.

[6] This information is acquired from Nikkei 2021/4/7.

Evidence suggests that the selection of female professionals with relatively high skills has diverse effects on the skills of directors (Hillman et al., 2002).

This study makes several contributions. First, we confirm the tokenism in Japan, which is consistent with previous studies. Second, we find that the driver of Japanese tokenism is not outside but in-country pressure, specifically, the Code. Finally, we reveal that the order of female outside directors' appointment is dependent on the tokenism among outside directors.

The remainder of the study is structured as follows. Section 2 reviews the Japan's Code background focusing on ingroup bias, Section 3 discusses previous studies, while Section 4 establishes our hypotheses. Section 5 presents the methodology, data, and variables. Section 6 presents the empirical results. Lastly, Section 7 concludes the study.

2. Institutional background: The Code and ingroup bias

As pointed in (Aoki et al., 2007), Japanese boards have been composed of male-dominated ingroups (in-group members). In such cases, the boards and its committees are organized in a way that is convenient for men (ingroup bias), where an ingroup bias among male directors forms organizational structures that suit men's interests, such as the appointment of male directors on a rotation basis. Ingroup bias inhibits the following two crucial functions of the board of directors: supervisory and advisory functions (Coles et al., 2008). The board of directors comprises the top ingroup members, such as the CEO, and directors from the ingroups form the hierarchy below. The CEO and board members may have once been superiors and subordinates. Additionally, a director plotting to become the next CEO may be a yes-man to improve the current CEO's impression. Under these circumstances, it is unlikely that a director would express an opposing view to the CEO. Furthermore, because ingroup members are from the same generation, they are colleagues who share the same experiences and values. In such boards, it is not easy to generate diverse opinions and innovations that contribute to improving enterprise value.

To change this situation and enable economic growth, the Tokyo Stock Exchange (TSE) requires that at least one independent outside director or independent outside auditor be appointed in 2009 and at least more than one independent outside director be appointed in 2014. Accordingly, TSE and the Financial Services Agency jointly formulated and published the Code in 2015.

The Code called for a more diverse board, different from a board elected from the ingroup, one with more independence and greater information transparency. Traditionally, even when outside directors are available, they often come from cross-shareholding companies, companies with which the firm

conducts business, such as major banks, or the management. The president/CEO has strong authority and a board of male/internal directors and an internal audit department cannot adequately oversee the board. In response to these challenges, the board structure was to be reformed by increasing the number of independent outside directors to provide independent and effective management oversight (Shirai, 2022). Appointing female outside directors with different backgrounds from male directors and from within the company is expected to bring independence to the board and improve its monitoring function. Furthermore, diversity improves the board's advisory function.

The social role theory has been used to explain the gender gap in the boards of directors. It states that stereotypical attitudes emphasizing traditional gender roles act as barriers to the rise of female directors and candidates for director positions. This problem is difficult to overcome. It has been observed to be associated with economic, political, and cultural institutional factors that make change difficult (Chizema et al., 2015). Thus, increasing the number of female directors and women in senior management takes time despite improvements in female labor force participation in Japan.

As described above, we believe that newly appointed female outside directors can improve both the ingroup bias in male-dominated boards and the gender roles that have long persisted in Japan. To overcome these issues, firms should go beyond tokenism and appoint sufficient female outside directors. Accordingly, this study sheds light on tokenism in Japan.

3. Literature review

Kanter (1977) shows how females are treated as tokens in the corporation. Tokenism is the practice of prioritizing diversity as a mere token by including only a small number of females within a male-dominant group. This is called tokenism by gender in corporations. Tokenism in the boardroom arises when females are viewed with prejudice and are under mental pressure to conform to the male majority; moreover, they are also unable to show their capabilities and less likely to influence majority groups. Even if they are able to show their abilities, they are considered exceptions instead of the norm. Furthermore, male directors do not like the implicit agreement to include more females on the board. Therefore, they continue to maintain female directors as tokens unless external pressures are introduced. If they add a female member to the board, they are seen as outside (outgroup) members in the male-dominated group (ingroup) to which they belong[7].

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[7] Social psychology has shown that evaluations of ingroup members by ingroup members tend to be higher than those by outgroup members (Bodenhausen et al., 2012).

By proportion of female employees, organizations are classified into the following four categories: 1) uniform, 2) skewed, 3) tilted, and 4) balanced (Kanter, 1977). 1) The uniform group comprises homogeneous members with identical values in regard to decision-making; 2) the skewed group has a maximum of two heterogeneous individuals, treated as tokens by the dominant group. For example, a board with fewer than two female directors; 3) the tilted composition group is a minority group comprising a certain percentage of the board. The members can have their views reflected as a group within the board, which is why tokenism does not generally occur. A skewed group becomes a tilted group when the proportion of females is 30% or there are three or more females on the board (Konrad et al., 2008). This threshold is called "critical mass"; finally, 4) the balanced group is a minority group that is given a fair chance within the company. A tilted group becomes a balanced group when the proportion of female member is 40% or more.

Many studies have examined the benefits of gender diversity in the boardroom. Generally, the skewed group is at risk of falling into groupthink (Hart, 1991; Matsui, 2020). Moreover, promoting board diversity has been shown to have positive effects. The existence of female board members improves diversity in terms of expertise and skill. Compared to male directors, female directors have higher educational levels and professional backgrounds in law and finance (Hillman et al., 2002). Additionally, they also diversify the skillsets of boards of directors (Kim and Starks, 2016). Specifically, increased diversity in boards, including gender, race, career history, and age diversity, improve the monitoring of inappropriate corporate investment activities, such as overinvestment (Adams and Ferreira, 2009; Harjoto et al., 2018). Guldiken et al. (2019) state that gender diversity on boards contributes to new ideas, avoiding securities fraud, encouraging prudent oversight, and driving ethical corporate behavior.

Knippen et al. (2019) investigate how companies in the U.S. counter external pressure for greater board gender diversity. In the U.S., external pressure for gender diversity on boards has increased the number of companies appointing at least one female director.[8] Although new directors are usually appointed without increasing the board size, it is found that, in companies with fewer than two female directors, new female directors are likely to be appointed by increasing the board size and not by replacing former male directors. This is because incumbent male directors categorize the new female directors as outgroup members and appoint them by adding new board seats to retain the incumbent male directors. When two or more incumbent female directors already exist, the number of female directors does not increase because they merely pass the number of female directors required. Additionally, they find that new female directors introduced by increasing the board size are less likely to serve on major board committees. Even when female directors are highly qualified, they are less

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[8] Companies with one female director rarely add two or more female directors (Guldiken et al., 2019).

likely to take on chairing key committees (Field et al., 2020). Thus, the effects of board gender diversity are limited. Knippen et al. (2019) consider tokenism as companies' actions with fewer than two female directors in treating them as an outgroup.

However, there is another story about categorizing female directors as an outgroup. For example, Zhu et al. (2014) report that female directors sharing commonalities with incumbent male directors, such as having the same college education, are more likely to hold significant board positions. This is attributed to incumbent male directors reclassifying female directors and accepting them into the group (ingroup). Countries with a higher proportion of females in legislative bodies, at high-ranking and managerial positions, as along as countries with a lower gender income gap, tend to have a higher proportion of female directors (Chizema et al., 2015; Post and Byron, 2015). In the case of belonging to nomination committees, female CEOs, and busy directors, the proportion of female directors is relatively high. For example, companies with nomination committees ensure transparency in selecting and dismissing directors, resulting in a higher proportion of female directors. Moreover, female directors in nomination committees further increase gender diversity in boards (Hutchinson et al., 2015). Guldiken et al. (2019) point out that more female top managers, that is, CEOs, CFOs, senior vice presidents, et cetera, increase female director appointments.

Outside U.S., in France and Italy, companies with family management have more female directors (Nekhili and Gatfaoui, 2013). In Japan, companies with more foreign institutional investors are more likely to appoint females as directors and managers (Kubo and Nguyen, 2021; Mun and Jung, 2018), depending on the firm size and industry (Nguyen and Thai, 2022). Additionally, female director networks promote the appointment of female directors (Raddant and Takahashi, 2022).

Several studies discuss the relationship between the proportion of female directors and financial performance. The evidence of the relationship between female directors and financial and market performance is mixed.[9] However, Post and Byron (2015) suggest that countries with better investor protection and less gender discrimination tend to have better financial performance (ROA and ROE) when female directors are appointed. This indicates the need to establish social and economic systems to promote the appointment of female directors. In Japanese companies, studies have shown that the appointment of female outside directors increases firm value (Q ratio) (Tanaka, 2019), the appointment of the first female director improves CSR performance (Nguyen and Thai, 2022), and there is a positive relationship between female founder CEOs and Q (Kubo and Nguyen, 2021).

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[9] Some report positive effects on financial and market performance (e.g. Green and Homroy, 2018; Tanaka, 2019). However, some have found no robust positive effects (e.g., Gregory-Smith et al., 2014; Sila et al., 2016) and provide mixed results (e.g. Adams and Ferriera, 2009; Joecks et al., 2013; Post and Byron, 2015).

4. Hypothesis development

Knippen et al. (2019) find that for firms with two or fewer female directors, instead of replacing male directors with female directors, external pressure to correct tokenism increases the number of female board positions and directors. They argue that even if external pressure leads to the promotion of female directors, board diversity remains limited and does not significantly improve. In such cases, the boards are organized to be convenient for males and perpetuate ingroup bias. In the existence of ingroup bias lead by male directors, male directors are appointed on a rotation basis.

Furthermore, female directors are seen as outgroup instead of ingroup members. Therefore, companies do not actively appoint new female directors unless external pressure is applied. However, when there is pressure, current male directors compromise by nominating new female directors and increasing the board size. Thus, because females are treated as outgroup members, their appointments may be accepted because of ingroup bias, but they are not promoted or given key positions. If there is any external pressure for gender diversity on boards, the number of seats on the board is increased to accommodate outgroup members. Therefore, this study focuses on the increase in the number of female outside directors. Knippen et al. (2019) argue that tokenism occurs as an increase in the board's seats when female directors are treated as outgroup members and external pressure is necessary but the results are not substantive.

Kanter (1977) pointed that "the token" has difficulty gaining power even if there are two people in the group. Thus, in this study, we assume that tokenism occurs when the number of female outside directors on the board in period t is one or two as a result of the appointment of female outside directors in period t-1. If the number of outside directors reaches three or more, it is not considered tokenism. This definition is consistent with that of Konrad et al. (2008), who state that three or more members constitutes critical mass. Recently, the 30% threshold has often been used to refer to the critical mass theory. Examples include the 30% Club launched in the UK in 2010 and Japan's policy target.[10] Considering this criterion, the average number of directors in our sample is 8.92. Therefore, 8.92 * 0.3 = 2.676—a level that is close to three directors.

This study investigates whether tokenism occurs in Japan and proposes a hypothesis regarding the mechanism of tokenism for outside board members in the Japanese context. After the introduction of

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[10] The Gender Equality Bureau Cabinet Office has been promoting Positive Action, one of the most effective measures to increase women's participation, in order to achieve the goal of "expecting the percentage of women in leadership positions in all sectors of society to be at least 30% by 2020" (June 20, 2003 decision by the Headquarters for the Promotion of Gender Equality, "30% by 2020" goal). In order to achieve this goal, the Gender Equality Bureau is promoting Positive Action, one of the most effective measures to increase women's participation in society.

the Code, because of in-group bias (Aoki et al., 2007), it was likely for tokenism to occur in Japanese companies. This is where a male outside director is appointed first and a second female director is appointed later. If companies already have one female director and more than two outside directors regardless of gender, they do not need to have any additional female directors (It is enough because of the previously appointed female director). Considering that Japanese corporate boards are male-dominated, we expect that an increase in the number of directors leads to the token appointment of female outside directors. Thus, we derive the following hypotheses:

Hypothesis 1: Under tokenism, female outside directors are appointed not to replace male outside directors but to increase the number of directors. In this case, male outside directors are appointed first, followed by female outside directors.

Under tokenism, high-profile female outside directors are expected to be appointed considering the importance of symbolizing tokenism. Therefore, outside directors are expected to be more visible as career-driven female directors. The expectation is that female outside directors who are also outside directors of other companies are more likely to be nominated.[11] Most male directors prefer female outside directors who are busy and do not have the time to serve on the board. Thus, we derive the following hypothesis:

Hypothesis 2: Under tokenism, if female outside directors serve on three or more boards (busy outside directors), they are more likely to be appointed.

Token female outside director appointments may be rooted in strong external pressures (Knippen et al., 2019). In Japan, an increase in the proportion of female directors has become a political and social issue. Additionally, foreign investors may plan to target an increase in proportion because of the low proportion of female directors internationally. In recent years, the institutional environment has persuaded companies to organize CSR activities (Campbell, 2007). Based on the institutional theory, companies with global operations are expected to have more opportunities to consider international norms, non-governmental organizations, and global supply chains. Therefore, companies should incorporate gender diversity in their CSR activities. Tokenism may occur when pressure from various stakeholders is strong. Based on this, we derive the following hypothesis:

Hypothesis 3: Under tokenism, the stronger the external pressure, the more the appointment of female outside directors is promoted.

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[11] Field et al. (2020) find that busy female directors, who concurrently serve on at least three other companies' boards, often have more professional qualifications, extensive experience in other companies, a wide network of directors, and the necessary qualities.

5. Methods and Sample

Research design

First, we discuss the dependent variables. We create a dummy variable for the conditions under which a firm appoints female outside directors. We focus on the following two cases: a) firms appoint one or two female outside directors in period t when they have no female outside director in period t-1 and b) firms appoint two female outside directors in period t when they have one female outside director in period t-1. To test Hypothesis 1, the case in which an increase in the number of outside directors is observed is used as a proxy variable for tokenism (Female1). The case in which there is no increase in the number of outside directors is used as a proxy variable for no tokenism (Female2). If new outside directors are from ingroup members, they are usually appointed to replace their predecessors. However, under tokenism, if new outside directors are from outgroup members, they are considered additions to the board (Knippen et al., 2019). To test Hypothesis 2, we also create new dummy variables where the appointed female outside directors are busy directors who hold three or more concurrent positions in period t. We introduce the following new variables: 1) Female1b is for a "Female1" female director but who is a busy female director; and 2) Female2b is for a "Female2" female director but who is a busy female director.

Furthermore, we confirm that male outside directors are not considered as tokens. For this purpose, we introduce the following new variables: 1) male outside director (Male1) instead of Female1 and 2) male outside director (Male2) instead of Female2. This formulation allows us to benchmark and compare the determinants of standard male outside director appointments.

Next, we discuss the explanatory variables. We introduce several variables related to the appointment of outside directors in period t-1. The ratio of outside directors (R_Odirectors) and number of outside directors (N_Odirectors). We add the following dummy variables: D0_Odirectors takes the value of 1 if there are no outside directors, and 0 otherwise; D1_Odirectors takes the value of 1 if there is one outside director, and 0 otherwise; D2_Odirectors takes the value of 1 if there are two or more outside directors, and 0 otherwise.

To support Hypothesis 1, first, we note there is an increase in the number of the directors (female1=1) in period t. In this study, we analyze the number of female directors from zero to two and more than, because the Code in 2015 requires at least two outside directors. Hence, we consider the following three cases: 1) If there are no outside directors in t-1 (D0_Odirectors), the first outside director is

expected to be appointed a male and not a female in period t.[12] 2) If one male outside director is appointed from the ingroup members (D1_Odirectors) in t-1, second outside director is expected to be female because the female outside director is appointed after male. 3) If there is no increase in the number of the directors (female2=1), 1) and 2), the problems of tokenism do not occur.

Hypothesis 2 is based on Hypothesis 1, but focuses on busy female outside directors. The same pattern is expected for the increase in the number of board members and appointing female outside directors in period t, as mentioned in Hypothesis 1.

Hypothesis 3 considers that external pressure encourages tokenism. As proxies for pressure in the external environment (Hypothesis 3), we use the foreign ownership ratio (Sh_Foreign), float stock ratio (Sh_Float), foreign sales ratio (Fsales), and average number of female outside directors from the same industry (F_Odirectors). From the perspective of maximizing shareholder value, we believe that foreign and domestic institutional investors demand diversity on boards by engaging with the company and exercising their voting rights. Therefore, companies with higher Sh_Foreign and Sh_Float are likely to face greater pressure to promote gender diversity.[13] Fsales is considered as a proxy for the degree of overseas business development. As companies with overseas operations are more likely to focus on gender diversity as part of their CSR activities, tokenism may occur when pressure from stakeholders, different from shareholders, is greater. F_Odirectors is a proxy for tokenism pressure. A strong sense of alignment with peer firms is expected to exert pressure, resulting in tokenism.

We introduce explanatory variables that indirectly impact tokenism. First, as variables related to the presence of female leadership, we use a dummy variable (D_Zero) that takes the value of 1 if there are zero female officers (directors or auditors), and 0 otherwise. We also introduce a dummy variable (D_Fceo) that takes the value of 1 if the CEO is female, and 0 otherwise. These variables consider the possibility of promoting the appointment of female outside directors as female CEOs or officers. Auditors and directors are included because both are treated as officers under the Japanese corporate law. The number of foreign directors and auditors (Fsize) is related to foreign management. It also considers the possibility of promoting gender diversity. Next, we use the maximum age of the CEO (Maxage) and a multiple representation dummy (D_Multi) as variables representing male-dominated boards. D_Multi is a dummy variable that takes the value of 1 if there is more than one representative

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[12] This does not necessarily mean an increase in the number of men on the board.

[13] Considering that the shareholding ratios of domestic institutional investors are not disclosed in the securities statements (Yuka Syoken Hokokusho), proxy variables need to be searched for. Generally, institutional investors do not invest in illiquid stocks. Therefore, because we believe that there is a certain correlation between the shareholding ratio of domestic institutional investors and free float weight, we use the free float weight as a proxy variable. The free float weight data were obtained from Bloomberg.

director, and 0 otherwise. Under the Japanese corporate law, companies are allowed to have more than one representative director. Consequently, some Japanese companies continue to have representation rights even after retiring from honorary positions. Resistance to promoting gender diversity may be stronger in companies with old customs. We also use the variables number of directors (Bsize), average tenure of directors (Btenure), average years of service as a director (Bcareer), and average age of directors (Bage) to control for member type and composition. We use the number of male director turnovers (To_Mdrt) and female director turnovers (To_Fdrt) as variables. The number of director turnovers is considered because they provide opportunities to promote new directors. Theoretically, this should provide opportunities for both men and women to be promoted. However, turnover does not necessarily lead to promotion of female directors, as discussed in Hypothesis1.

We add the logarithm of total asset(Assets), return on assets(ROA), and industry and year dummies as control variables. All explanatory variables use prior-period values to account for endogeneity effects. For Fsales, Assets, and ROA, which are calculated using financial data, we use values winsorized to a threshold of 1% in the cross-section.

We employ a logistic regression analysis defined by the following equation to test the hypotheses:

$$Logit[y_{i,t} = 1] = \alpha + \beta \cdot x_{i,t-1} + \gamma \cdot Industry_i + \delta \cdot Year_t$$

where y represents the dependent variable to which the values Female1, Female2, Female1b, Female2b, Male1, and Male2 are substituted, respectively. x represents the explanatory variables and β represents the regression coefficient. $Industry$ is a dummy variable based on the 17-industry classification by the Tokyo Stock Exchange, and γ is the regression coefficient. $Year$ is a dummy variable for the fiscal year, and δ is the regression coefficient. Table 1 summarizes this study's variables.

Table1 Variable definitions

Variables	Definition
Female1	Dummy variable that takes 1 if a firm with no female outside directors in period t-1 appoints 1 or 2 female outside directors in period t or if a firm with 1 female outside director in period t-1 appoints 2 female outside directors in period t, with increasing the board of directors, otherwise 0
Female2	Dummy variable that takes 1 if a firm with no female outside directors in period t-1 appoints 1 or 2 female outside directors in period t or if a firm with 1 female outside director in period t-1 appoints 2 female outside directors in period t, without increasing the board of directors, otherwise 0
Female1b	Dummy variable that takes 1 if a firm with no female outside directors in period t-1 appoints 1 or 2 female outside directors who concurrently hold positions at 3 or more companies in period t of if a firm with 1 outside director in period t-1 appoints 2 female outside directors who concurrently hold positions at 3 or more companies in period t, with increasing the board of directors, otherwise 0
Female2b	Dummy variable that takes 1 if a firm with no female outside directors in period t-1 appoints 1 or 2 female outside directors who concurrently hold positions at 3 or more companies in period t of if a firm with 1 outside director in period t-1 appoints 2 female outside directors who concurrently hold positions at 3 or more companies in period t, without increasing the board of directors, otherwise 0
Male1	Dummy variable that takes 1 if a firm appoints one or two new male outside directors from period t-1 to period t, with increasing the board of directors, otherwise 0
Male2	Dummy variable that takes 1 if a firm appoints one or two new male outside directors from period t-1 to period t, without increasing the board of directors, otherwise 0
R_Odirectors	Number of outside directors / total number of directors in period t-1
N_Odirectors	Number of outside directors in period t-1
D0_Odirectors	Dummy variable that takes 1 if a firm has no outside directors in period t-1 , otherwise 0
D1_Odirectors	Dummy variable that takes 1 if a firm has 1 outside directors in period t-1 , otherwise 0
D2_Odirectors	Dummy variable that takes 1 if a firm has 2 or more outside directors in period t-1 , otherwise 0
Sh_Foreign	Number of shares held by foreign investors / number of shares outstanding in period t-1
Sh_Float	The percentage of listed shares that can be traded in the market in period t-1, which is called the Free-Float Weight, is calculated by the Tokyo Stock Exchange
Fsales	Revenues from overseas customers / total revenues in period t-1
F_Odirectors	Average number of female outside directors within each firms' industry classified by 17 Tokyo Stock Exchange industry sectors in period t-1
D_Zero	Dummy variable that takes 1 if a firm has no female board members in period t-1, otherwise 0
D_Fceo	Dummy variable that takes 1 if a firm has female CEO in period t-1, otherwise 0
Fsize	Number of foreign directors in t-1 period
Maxage	Maximum age of the CEO of each firm during the analysis period
D_Multi	Dummy variable that takes 1 if there is more than one director with authority to represent the company in period t-1, otherwise 0
To_Mdrt	Number of male directors who left their positions from period t-1 to period t
To_Fdrt	Number of female directors who left their positions from period t-1 to period t
Bsize	Number of directors in period t-1
Btenure	Average tenure of directors of each firm in period t-1
Bcareer	Average year of careers on the board of directors in period t-1
Bage	Average age of directors in period t-1
Assets	Natural logarithm of total assets in peirod t-1
ROA	EBITDA / total assets in period t-1

Table 1 summarizes the definitions of variables used in the logistic regression analysis.

Sampling and descriptive statistics

A total of 5,847 fiscal year observations of general business companies selected from the Nikkei NEEDS Corporate Basics & Attributes database are analyzed; companies with irregular fiscal year observations are excluded.[14] The sample is limited to companies listed in the First Section of the Tokyo Stock Exchange because the content of the Code required by the exchanges differs by listing category. Additionally, the sample is limited to a "Company with a Board of Company Auditors" because many Japanese firms had a Board of Corporate Auditors during the analysis period. We also considered differences in the institutional design of the board of directors.[15] Furthermore, the sample is limited to firms with audit committees because many Japanese firms have audit committees during the analysis period, in addition to considering the differences in board institutional design. Financial data are obtained from the Nikkei NEEDS Financial Quest database. We use consolidated data for firms publishing consolidated financial statements. The sample period is from 2014 to 2017.

Table 2 presents the descriptive statistics for the sample. Panel A represents the dependent variables and Panel B represents the explanatory variables. The mean values of Female1 and Female2 are 0.015 and 0.009, respectively, indicating that the level of appointment of female outside directors is low. Especially, the mean values for Female1b and Female2b are 0.002 and 0.004, respectively, indicating that the appointment level of busy female outside directors serving on the boards of three or more companies is extremely low. However, the mean values for Male1 and Male2 are 0.077 and 0.028, respectively, which are higher than those for female directors, but still considered low. N_Odirectors in Panel B is 2.11 (25th percentile value is 2), suggesting that companies may have appointed two outside directors during the early part of the analysis period.

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[14] The number of non-financial and non-utility firms listed on the First Section of the Tokyo Stock Exchange is 1,737, 1,806, 1,872, and 1,938 for fiscal years 2014-2017, respectively. For companies with Boards of Company Auditors, data are extracted on companies for which director data were reported. Companies with irregular fiscal years were excluded. The number of companies with a Board of a Company Auditors is 1,606 (92.5%), 1,427 (79.0%), 1,404 (75.0%), and 1,410 (72.8%) for year 2014-2017, respectively. According to a survey conducted by the Japan Association of Corporate Directors (2021), among all companies listed on the First Section of the Tokyo Stock Exchange, 91.4%, 78.8%, 75.0%, and 72.7%, in that order from 2014 to 2017, chose a Company with a Board of Company Auditors. This ensures that our sample is representative of the population.

Note that the setting up of various advisory committees in companies with a Board of a Company Auditors around 2015 was only about 10%, according to the TSE Listed Companies White Paper of Corporate Governance 2015. Therefore, it is likely that few companies had set up advisory committees. Therefore, unlike the U.S. example, it is difficult to verify the detailed profiles of outside directors in Japan in 2015, such as knowing whether they held key positions in the board of directors or not.

[15] A possible method of analysis would be to include 'companies with nominating committees' and 'companies with audit and supervisory committee', whose boards of directors consist mainly of outside directors. In fact, the number of these companies is increasing; however, the change in institutional design changes the size of the board of directors because the audit duties previously handled by the statutory auditors are now performed by the directors. As will be discussed later, the change in board size is noise in identifying tokenism, which is why it is necessary to limit the analysis to the sample that did not change its institutional design during the analysis period. In such a case, the sample size would be greatly reduced, and we would not have a sufficient sample of firms that appoint female outside directors, which is the focus of this study. These are also the reasons for limiting our analysis to' company with a board of a company auditors'.

F_Odirectors is 0.21, which is not far from the industry average for a single female outside director. The average value of D_Zero is 0.66, indicating that only one of three companies has female directors, even when we extend the scope to include internal directors and auditors. The average value of D_Fceo is 0.00 (with a maximum value of 1), indicating that few companies have a female CEO. However, the mean value of To_Fdrt is 0.04, indicating that the turnover rate of female directors is low. This is consistent with the low number of female outside directors appointed. The average value of male directors' turnover is 1.68; therefore, one of our concerns is whether female outside directors are appointed to replace male directors.

Table 2 Descriptive statistics

	N	Mean	Sd	Min	P1	P25	P50	P75	P99	Max
				Panel A: Dependent variables						
Female1	5,847	0.015	0.12	0	0	0	0	0	1	1
Female2	5,847	0.009	0.10	0	0	0	0	0	0	1
Female1b	5,847	0.002	0.04	0	0	0	0	0	0	1
Female2b	5,847	0.004	0.06	0	0	0	0	0	0	1
Male1	5,847	0.077	0.27	0	0	0	0	0	1	1
Male2	5,847	0.028	0.16	0	0	0	0	0	1	1
				Panel B: Independent variables						
R_Odirectors	5,847	24.8%	11.3%	0.0%	0.0%	16.7%	23.1%	31.3%	60.0%	83.3%
N_Odirectors	5,847	2.11	0.94	0	0	2	2	2	5	7
D0_Odirectors	5,847	0.02	0.15	0	0	0	0	0	1	1
D1_Odirectors	5,847	0.19	0.40	0	0	0	0	0	1	1
D2_Odirectors	5,847	0.78	0.41	0	0	1	1	1	1	1
Sh_Foreign	5,807	16.2%	12.7%	0.0%	0.5%	5.8%	13.5%	23.7%	54.4%	94.2%
Sh_Float	5,807	52.8%	17.5%	0.0%	0.0%	40.0%	55.0%	65.0%	85.0%	95.0%
Fsales	5,791	18.9%	25.9%	0.0%	0.0%	0.0%	0.0%	35.1%	88.5%	100.0%
F_Odirectors	5,847	0.21	0.09	0.07	0.07	0.15	0.20	0.26	0.50	0.50
D_Zero	5,847	0.66	0.48	0	0	0	1	1	1	1
D_Fceo	5,847	0.00	0.06	0	0	0	0	0	0	1
Fsize	5,847	0.09	0.45	0	0	0	0	0	2	7
Maxage	5,847	61.9	7.6	29	41	58	63	67	79	90
D_Multi	5,847	0.55	0.50	0	0	0	1	1	1	1
To_Mdrt	4,437	1.68	2.39	0	0	0	1	2	11	17
To_Fdrt	4,437	0.04	0.21	0	0	0	0	0	1	3
Bsize	5,847	8.92	2.86	3	4	7	9	10	17	30
Btenure	5,847	6.4	3.6	0.5	1.3	3.7	5.5	8.3	17.4	28.6
Bcareer	5,847	19.7	8.5	0.0	2.4	13.3	20.5	26.6	35.5	42.6
Bage	5,847	59.7	4.6	34.8	44.2	57.8	60.6	62.6	68.6	72.2
Assets	5,807	11.5	1.6	7.1	8.1	10.5	11.4	12.5	15.7	17.7
ROA	5,807	9.7%	6.1%	-52.9%	-2.3%	6.2%	8.8%	12.2%	28.1%	88.3%

Table 2 shows the descriptive statistics of the variables used in the logistic regression analysis. The sample analyzes consists of general business firms listed on the First Section of the Tokyo Stock Exchange in the fiscal years 2014-2017 that have a form of company with a board of auditors. The definitions of each variable are summarized in Table 1. For the three variables calculated using financial data, the ratio of overseas sales (Fsales), log of total assets (Assets), and ROA, we use values winorized to a threshold of 1% to reduce the impact of outliers.

Figure 1 shows the number of companies grouped by the number of outside directors as of 2014. A total of 96 companies have no outside directors, 631 companies have one outside director, and 879 companies have two or more outside directors. One possible reason for the large number of companies with one or at least two outside directors in 2014 is that the Tokyo Stock Exchange's listing rules have been revised to improve corporate governance at listed companies. Specifically, effective February 10, 2014, companies have been required to have at least one independent outside director. Before the implementation of the listing rules, firms were only required to have one independent outside director or auditor. While these stock exchange-led reforms are not legally binding, they act as soft laws, as evidenced by the increase in the number of companies that appointed outside directors–six companies, 102 companies, and 1,302 companies from 2014 to 2017, respectively–indicating progress in appointing outside directors. Companies with no outside directors in 2014 appointed one outside director by 2017, and companies with one outside director in 2014 appointed two or more outside directors by 2017. Conversely, more than half of the sample appointed two or more outside directors in 2014. There are two possible cases, one in which these companies further promote their appointment toward the global standard of the majority or two, be satisfied with meeting the Code's requirements.

Figure 1 Number of firms by number of outside directors appointed
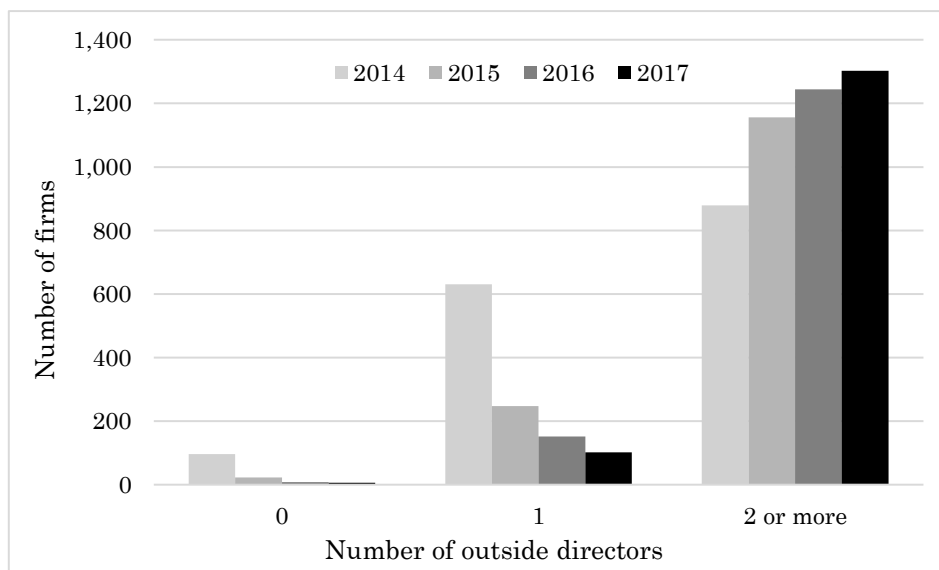
Figure 1 is a histogram showing the number of firms by the number of outside directors appointed. Each bar chart represents the number of companies from FY 2014 to FY 2017, starting from the left. The analysis sample comprises general business companies listed on the First Section of the Tokyo Stock Exchange in the fiscal years 2014-2017 that have a board of corporate auditors.

Figure 2 shows the number of outside directors by gender. An increase in the number of companies appointing outside directors has increased the number of outside directors. Specifically, male outside directors have increased from 2,225 in 2014 to 2,621 in 2017, while female outside directors have

increased from 203 in 2014 to 315 in 2017.[16] Regarding the rate of increase, these numbers are approximately 1.2 and 1.6 times higher for male and female outside directors, respectively. This indicates that the number of female outside directors has increased, but their share in the total has remained miniscule.

Figure 2 Number of outside directors by gender
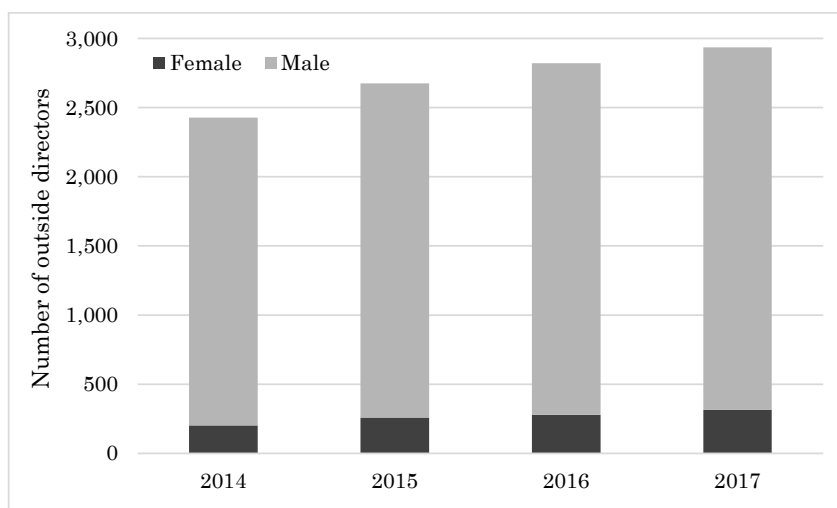
Figure 2 shows the change in the number of outside directors from 2014 to 2017. The figure is a stacked bar chart by gender. The sample analyzes consists of general business companies listed on the First Section of the Tokyo Stock Exchange in the fiscal years 2014-2017 that have a board of corporate auditors.

6. Empirical Results

Is the appointment of female outside directors caused by tokenism?

To verify Hypothesis 1, Table 3 shows the logistic regression results, with Female1 and Female2 as the dependent variables. Table 4 presents the logistic regression results for Female1b and Female2b. In Table 4, to test Hypothesis 2, the dependent variable is busy female outside directors who concurrently serve on the boards of three or more other companies. Table 5 shows the logistic regression results with Male1 and Male2 as the dependent variables. The analysis is conducted to test for differences in the determinants of female outsider director appointments. To test Hypothesis 3, the formulation of the explanatory variables used in all estimates is kept the same; however, explanatory variables that do not contribute to the estimate are excluded.[17]

Table 3 Regression results on the likelihood of increasing female outside directors

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[16] Counting overlapping cases of concurrent service as outside directors of other companies, there were 2,487 male and 236 female outside directors as of 2014 and 2,907 and 372 as of 2017, respectively, confirming little change from the trends in Figure 2.

[17] The dependent variables y=1 in a situation where there are few observations that are the explanatory variables, small variations in the explanatory variables may result in missing regression coefficients that cannot be estimated. Specifically, all or part of D_Fceo, Fsize, D0_Odirectors, and To_Fdrt are missing in Table 4, while part of D_Fceo is missing in Table 5.

	Female1						Female2					
	model 1	model 2	model 3	model 4	model 5	model 6	model 1	model 2	model 3	model 4	model 5	model 6
R_Odirectors		-3.375***						-1.272				
		[-2.87]						[-0.77]				
N_Odirectors			-0.504***						-0.223			
			[-3.12]						[-1.14]			
D0_Odirectors				-0.115						0.88		
				[-0.17]						[1.08]		
D1_Odirectors					1.129***						0.201	
					[4.25]						[0.47]	
D2_Odirectors						-1.214***						-0.366
						[-4.56]						[-0.87]
Sh_Foreign	0.0397	0.338	0.415	0.0301	0.265	0.367	2.053*	2.214*	2.248**	2.131*	2.085*	2.134*
	[0.03]	[0.25]	[0.32]	[0.02]	[0.21]	[0.28]	[1.79]	[1.94]	[1.98]	[1.84]	[1.83]	[1.87]
Sh_Float	-0.382	-0.284	-0.265	-0.381	-0.197	-0.195	1.277	1.322	1.346	1.267	1.324	1.362
	[-0.50]	[-0.38]	[-0.35]	[-0.50]	[-0.26]	[-0.26]	[1.30]	[1.36]	[1.38]	[1.30]	[1.35]	[1.39]
Fsales	0.383	0.417	0.404	0.382	0.396	0.406	-1.088	-1.056	-1.058	-1.081	-1.078	-1.068
	[0.63]	[0.66]	[0.64]	[0.63]	[0.62]	[0.64]	[-1.17]	[-1.14]	[-1.14]	[-1.16]	[-1.16]	[-1.15]
F_Odirectors	-8.123	-8.195	-8.456	-8.123	-8.118	-8.132	-22.97***	-23.09***	-23.32***	-22.91***	-23.08***	-23.16***
	[-1.07]	[-1.08]	[-1.11]	[-1.07]	[-1.06]	[-1.06]	[-2.74]	[-2.76]	[-2.77]	[-2.73]	[-2.75]	[-2.75]
D_Zero	0.434	0.347	0.334	0.435	0.356	0.343	0.569	0.527	0.498	0.564	0.554	0.541
	[1.54]	[1.20]	[1.13]	[1.55]	[1.21]	[1.16]	[1.64]	[1.53]	[1.46]	[1.62]	[1.61]	[1.56]
D_Fceo	2.802***	2.711***	2.697***	2.803***	2.607***	2.614***	2.934*	2.906*	2.902*	2.947**	2.892*	2.865*
	[3.59]	[3.53]	[3.50]	[3.61]	[3.55]	[3.53]	[1.89]	[1.91]	[1.91]	[2.02]	[1.80]	[1.83]
Fsize	-0.601	-0.58	-0.573	-0.602	-0.648*	-0.642*	-0.155	-0.146	-0.129	-0.153	-0.165	-0.173
	[-1.54]	[-1.51]	[-1.49]	[-1.54]	[-1.67]	[-1.66]	[-0.35]	[-0.35]	[-0.31]	[-0.35]	[-0.38]	[-0.40]
Maxage	-0.00249	-0.00514	-0.00518	-0.00233	-0.00147	-0.00301	0.0145	0.0125	0.0117	0.0131	0.0141	0.0133
	[-0.16]	[-0.33]	[-0.34]	[-0.15]	[-0.09]	[-0.19]	[0.63]	[0.53]	[0.50]	[0.56]	[0.61]	[0.57]
D_Multi	0.142	0.0998	0.112	0.142	0.117	0.116	0.083	0.0739	0.0803	0.0915	0.0816	0.0832
	[0.55]	[0.38]	[0.43]	[0.55]	[0.45]	[0.45]	[0.23]	[0.20]	[0.22]	[0.25]	[0.22]	[0.23]
To_Mdrt	-0.0939	-0.104	-0.108	-0.093	-0.106	-0.116	0.331***	0.332***	0.330***	0.328***	0.329***	0.327***
	[-0.93]	[-1.02]	[-1.09]	[-0.93]	[-1.05]	[-1.14]	[4.40]	[4.40]	[4.37]	[4.36]	[4.38]	[4.37]
To_Fdrt	-0.251	-0.226	-0.197	-0.252	-0.253	-0.239	0.607	0.612	0.621	0.619	0.608	0.614
	[-0.25]	[-0.23]	[-0.20]	[-0.25]	[-0.25]	[-0.24]	[0.92]	[0.92]	[0.95]	[0.93]	[0.91]	[0.92]
Bsize	-0.137**	-0.181***	-0.0989*	-0.138***	-0.104**	-0.0950*	-0.0921	-0.109	-0.0765	-0.0869	-0.0859	-0.0792
	[-2.56]	[-3.23]	[-1.88]	[-2.58]	[-1.96]	[-1.82]	[-1.25]	[-1.46]	[-1.00]	[-1.18]	[-1.14]	[-1.05]
Btenure	-0.0149	-0.0272	-0.0284	-0.0141	-0.0282	-0.0358	-0.00222	-0.00678	-0.00973	-0.00629	-0.00473	-0.00804
	[-0.44]	[-0.78]	[-0.81]	[-0.40]	[-0.84]	[-1.06]	[-0.04]	[-0.13]	[-0.19]	[-0.12]	[-0.09]	[-0.16]
Bcareer	0.0369*	0.0199	0.0177	0.0372*	0.0218	0.0189	-0.0182	-0.0233	-0.0256	-0.0203	-0.02	-0.0222
	[1.87]	[1.04]	[0.92]	[1.91]	[1.14]	[1.03]	[-0.91]	[-1.14]	[-1.28]	[-1.05]	[-0.97]	[-1.11]
Bage	-0.0173	0.0102	0.0121	-0.0187	-0.00298	0.00995	0.00913	0.0189	0.0232	0.018	0.012	0.017
	[-0.53]	[0.30]	[0.37]	[-0.54]	[-0.09]	[0.31]	[0.20]	[0.40]	[0.47]	[0.38]	[0.26]	[0.36]
Assets	3.577**	3.909***	4.010***	3.588**	4.259***	4.218***	0.91	0.907	0.98	0.865	0.959	0.99
	[2.45]	[2.68]	[2.78]	[2.45]	[2.87]	[2.86]	[0.52]	[0.52]	[0.56]	[0.50]	[0.55]	[0.57]
ROA	4.969*	5.191**	5.077*	4.966*	5.270**	5.241**	3.596	3.664	3.665	3.609	3.682	3.754
	[1.93]	[1.98]	[1.93]	[1.93]	[1.99]	[1.98]	[1.18]	[1.21]	[1.20]	[1.22]	[1.17]	[1.22]
Constant	-8.206*	-8.802*	-9.514**	-8.166*	-10.99**	-10.34**	1.604	1.805	1.452	1.243	1.332	1.352
	[-1.74]	[-1.84]	[-2.00]	[-1.73]	[-2.31]	[-2.17]	[0.29]	[0.32]	[0.26]	[0.22]	[0.24]	[0.24]
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,989	3,989	3,989	3,989	3,989	3,989	3,953	3,953	3,953	3,953	3,953	3,953
Chi-squared	87.29	103.3	107.1	87.74	124.3	122.7	146.6	150.7	149.2	153.2	148.1	150.9
p-value for Chi-squared	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
R-squared	0.077	0.085	0.087	0.077	0.097	0.098	0.096	0.097	0.098	0.098	0.097	0.098

Table 3 presents the results of a logistic regression analysis of the determinants of the probability of appointing female outside directors. The sample analysis consists of general business firms listed on the First Section of the Tokyo Stock Exchange in the fiscal years 2014-2017 that have a board of corporate auditors. The definitions of each variable are summarized in Table 1. The numbers in the upper row of the table represent regression coefficients, and the numbers in parentheses in the lower row represent z-values based on cluster robust standard errors for each firm. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

Models 1-6 in each table are formulations to test Hypotheses 1. Model 1 is a baseline model, while Models 2-6 add variations of the appointment of outside directors in the previous year explanatory variable. The numbers in the top row of the table represent the regression coefficients and are preceded by an asterisk to indicate the significance level. The numbers in parentheses in the bottom row represent the z-values. To estimate the standard errors, we use a cluster-robust estimation method for each firm. To test the adequacy of the hypotheses from different perspectives, we interpret the analysis results in Table 3 with reference to the results in Tables 4 and 5.

Table 4 Regression results on the likelihood of increasing the number of busy female outside directors

	Female1b						Female2b					
	model 1	model 2	model 3	model 4	model 5	model 6	model 1	model 2	model 3	model 4	model 5	model 6
R_Odirectors		0.0716						-1.134				
		[0.03]						[-0.47]				
N_Odirectors			-0.467						-0.227			
			[-1.00]						[-0.68]			
D0_Odirectors										2.351		
										[1.54]		
D1_Odirectors					0.873						-1.018	
					[1.11]						[-0.92]	
D2_Odirectors						-0.525						0.239
						[-0.57]						[0.28]
Sh_Foreign	1.15	1.148	1.528	0.953	1.246	1.293	3.715*	3.834*	3.902*	4.004*	3.768	3.716
	[0.25]	[0.25]	[0.31]	[0.21]	[0.27]	[0.28]	[1.65]	[1.73]	[1.77]	[1.73]	[1.59]	[1.63]
Sh_Float	-1.879	-1.883	-1.748	-2.138*	-1.909	-1.823	0.759	0.861	0.913	0.688	0.575	0.71
	[-1.32]	[-1.35]	[-1.24]	[-1.71]	[-1.43]	[-1.27]	[0.56]	[0.64]	[0.68]	[0.51]	[0.41]	[0.50]
Fsales	0.887	0.889	0.795	1.001	0.879	0.854	-0.993	-0.956	-0.937	-0.981	-0.967	-0.986
	[0.68]	[0.69]	[0.61]	[0.78]	[0.67]	[0.66]	[-1.29]	[-1.26]	[-1.25]	[-1.24]	[-1.25]	[-1.27]
F_Odirectors	14.38	14.41	12.83	17.68	15.49	14.05	8.167	8.108	8.121	8.162	8.074	8.142
	[0.52]	[0.53]	[0.48]	[0.64]	[0.57]	[0.52]	[0.63]	[0.63]	[0.63]	[0.62]	[0.62]	[0.63]
D_Zero	-1.313*	-1.313*	-1.383*	-1.484*	-1.507*	-1.376*	-2.178***	-2.222***	-2.251***	-2.247***	-2.093***	-2.150***
	[-1.76]	[-1.75]	[-1.85]	[-1.76]	[-1.90]	[-1.86]	[-3.61]	[-3.81]	[-3.84]	[-3.74]	[-3.67]	[-3.92]
Maxage	0.00578	0.00573	0.00898	-0.00058	0.00533	0.00766	0.0288	0.027	0.0258	0.0279	0.0303	0.0293
	[0.11]	[0.11]	[0.17]	[-0.01]	[0.10]	[0.14]	[1.02]	[0.89]	[0.84]	[0.98]	[1.07]	[1.03]
D_Multi	0.39	0.39	0.374	0.356	0.41	0.401	1.09	1.077	1.073	1.104	1.1	1.093
	[0.41]	[0.41]	[0.39]	[0.38]	[0.45]	[0.42]	[1.59]	[1.58]	[1.56]	[1.59]	[1.62]	[1.61]
To_Mdrt	-0.0108	-0.0107	-0.0275	0.00283	-0.0334	-0.0261	0.328**	0.326**	0.322**	0.328**	0.336**	0.330**
	[-0.04]	[-0.04]	[-0.10]	[0.01]	[-0.11]	[-0.09]	[2.16]	[2.17]	[2.17]	[2.14]	[2.21]	[2.21]
To_Fdrt							0.47	0.451	0.444	0.479	0.454	0.465
							[0.81]	[0.78]	[0.77]	[0.81]	[0.78]	[0.79]
Bsize	-0.0652	-0.0641	-0.026	-0.0783	-0.0414	-0.0473	-0.345***	-0.369***	-0.329***	-0.336***	-0.360***	-0.350***
	[-0.35]	[-0.34]	[-0.13]	[-0.42]	[-0.21]	[-0.24]	[-3.49]	[-3.46]	[-3.19]	[-3.33]	[-3.70]	[-3.52]
Btenure	0.0875	0.088	0.0685	0.117	0.084	0.0779	-0.0984	-0.103	-0.107	-0.115	-0.0921	-0.0958
	[1.19]	[1.08]	[0.81]	[1.31]	[1.07]	[1.04]	[-1.23]	[-1.16]	[-1.16]	[-1.33]	[-1.12]	[-1.15]
Bcareer	-0.0479	-0.0476	-0.0548*	-0.0487	-0.0560*	-0.0522	-0.0106	-0.0143	-0.0164	-0.0123	-0.00637	-0.00933
	[-1.36]	[-1.45]	[-1.82]	[-1.35]	[-1.69]	[-1.61]	[-0.31]	[-0.42]	[-0.49]	[-0.36]	[-0.18]	[-0.27]
Bage	0.041	0.0407	0.0595	0.0514	0.0531	0.0473	0.00575	0.014	0.0192	0.0315	-0.00105	0.00266
	[0.34]	[0.35]	[0.49]	[0.39]	[0.45]	[0.41]	[0.10]	[0.22]	[0.29]	[0.48]	[-0.02]	[0.04]
Assets	2.776	2.765	3.121	2.55	3.009	2.905	0.608	0.646	0.698	0.4	0.411	0.557
	[0.49]	[0.48]	[0.55]	[0.45]	[0.52]	[0.51]	[0.27]	[0.29]	[0.31]	[0.17]	[0.18]	[0.25]
ROA	-4.353	-4.368	-4.025	-5.613	-4.87	-4.321	-2.62	-2.562	-2.661	-3.037	-2.898	-2.671
	[-0.80]	[-0.84]	[-0.69]	[-1.19]	[-0.85]	[-0.77]	[-0.54]	[-0.53]	[-0.55]	[-0.61]	[-0.56]	[-0.54]
Constant	-33.70*	-33.34	-34.87*	-34.18*	-35.08*	-33.55*	-8.532	-8.431	-8.886	-9.446	-7.558	-8.446
	[-1.65]	[-1.64]	[-1.83]	[-1.65]	[-1.72]	[-1.68]	[-1.13]	[-1.11]	[-1.18]	[-1.22]	[-1.01]	[-1.12]
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,102	2,102	2,102	2,054	2,102	2,102	3,038	3,038	3,038	3,038	3,038	3,038
Chi-squared	NA	939.7	NA	806.1	872	911.2	198	204.5	200.1	182.7	187	199.1
p-value for Chi-squared		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
R-squared	0.150	0.150	0.159	0.158	0.159	0.153	0.218	0.219	0.221	0.228	0.223	0.219

Table 4 presents the results of a logistic regression analysis of the determinants of the probability of appointing a busy female outside director who concurrently serves on at least three other company boards. The sample analyzed consists of general business companies listed on the First Section of the Tokyo Stock Exchange in the fiscal years 2014-2017 that have a board of corporate auditors. The definitions of each variable are summarized in Table 1. The numbers in the upper row of the table represent regression coefficients and those in parentheses in the lower row represent z-values based on cluster robust standard errors for each firm. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

Table 5 Regression results on the likelihood of increasing the number of male outside directors

	Male1						Male2					
	model 1	model 2	model 3	model 4	model 5	model 6	model 1	model 2	model 3	model 4	model 5	model 6
R_Odirectors		-10.33***						-6.324***				
		[-10.21]						[-5.72]				
N_Odirectors			-1.452***						-0.831***			
			[-10.62]						[-5.57]			
D0_Odirectors				1.617***						0.192		
				[5.77]						[0.37]		
D1_Odirectors					1.705***						1.551***	
					[11.97]						[7.33]	
D2_Odirectors						-2.352***						-1.672***
						[-15.47]						[-7.84]
Sh_Foreign	0.486	1.621**	1.688**	0.675	1.087*	1.575**	0.106	0.672	0.601	0.123	0.431	0.573
	[0.76]	[2.40]	[2.50]	[1.05]	[1.69]	[2.37]	[0.11]	[0.66]	[0.59]	[0.13]	[0.43]	[0.57]
Sh_Float	-1.400***	-1.210***	-1.206***	-1.455***	-1.197***	-1.148***	0.783	1.112*	1.136*	0.783	1.154*	1.177**
	[-3.79]	[-3.06]	[-3.05]	[-3.93]	[-3.07]	[-2.86]	[1.36]	[1.83]	[1.86]	[1.36]	[1.94]	[1.97]
Fsales	-0.196	-0.208	-0.153	-0.245	-0.131	-0.134	-0.108	-0.0971	-0.117	-0.112	-0.0286	-0.0536
	[-0.75]	[-0.74]	[-0.55]	[-0.94]	[-0.48]	[-0.47]	[-0.27]	[-0.23]	[-0.28]	[-0.28]	[-0.07]	[-0.13]
F_Odirectors	-1.581	-1.906	-2.333	-1.473	-1.778	-1.998	9.671*	9.369*	9.113*	9.691*	9.189*	9.354*
	[-0.45]	[-0.53]	[-0.65]	[-0.41]	[-0.50]	[-0.56]	[1.86]	[1.82]	[1.77]	[1.87]	[1.80]	[1.83]
D_Zero	0.309**	0.123	0.0745	0.313**	0.131	0.0705	0.217	0.0678	0.0185	0.216	0.0546	0.0406
	[2.44]	[0.88]	[0.55]	[2.42]	[0.98]	[0.51]	[1.13]	[0.34]	[0.09]	[1.13]	[0.27]	[0.20]
D_Fceo	0.547	0.388	0.342	0.538	0.374	0.346						
	[1.32]	[0.65]	[0.62]	[1.16]	[0.59]	[0.52]						
Fsize	-0.369**	-0.443**	-0.463**	-0.357**	-0.517***	-0.584***	0.248*	0.235	0.256	0.248*	0.184	0.183
	[-2.07]	[-2.47]	[-2.50]	[-2.04]	[-2.89]	[-3.12]	[1.69]	[1.55]	[1.63]	[1.69]	[1.24]	[1.24]
Maxage	0.0135	0.00839	0.00677	0.0125	0.0126	0.0113	0.0134	0.00684	0.00626	0.0133	0.00952	0.00855
	[1.60]	[0.95]	[0.79]	[1.48]	[1.39]	[1.22]	[0.93]	[0.46]	[0.43]	[0.92]	[0.65]	[0.58]
D_Multi	0.125	0.0795	0.11	0.116	0.134	0.127	-0.18	-0.224	-0.193	-0.18	-0.174	-0.175
	[1.07]	[0.64]	[0.90]	[1.00]	[1.08]	[0.99]	[-0.95]	[-1.17]	[-1.02]	[-0.95]	[-0.91]	[-0.92]
To_Mdrt	-0.248***	-0.298***	-0.304***	-0.271***	-0.277***	-0.313***	0.202***	0.199***	0.190***	0.201***	0.191***	0.181***
	[-4.17]	[-4.83]	[-5.09]	[-4.57]	[-4.57]	[-5.18]	[3.93]	[3.85]	[3.74]	[3.88]	[3.86]	[3.71]
To_Fdrt	-0.468	-0.365	-0.326	-0.413	-0.44	-0.374	1.156***	1.245***	1.261***	1.160***	1.249***	1.289***
	[-0.81]	[-0.62]	[-0.57]	[-0.72]	[-0.76]	[-0.64]	[3.13]	[3.34]	[3.21]	[3.14]	[3.41]	[3.56]
Bsize	-0.193***	-0.330***	-0.107***	-0.181***	-0.139***	-0.111***	-0.0378	-0.106**	0.0117	-0.0367	0.0106	0.0194
	[-6.80]	[-10.37]	[-3.89]	[-6.44]	[-4.91]	[-3.97]	[-0.92]	[-2.36]	[0.29]	[-0.89]	[0.27]	[0.49]
Btenure	-0.00538	-0.0454**	-0.0471***	-0.0192	-0.024	-0.0456**	-0.00403	-0.0272	-0.0291	-0.00507	-0.0251	-0.0315
	[-0.34]	[-2.35]	[-2.60]	[-1.14]	[-1.34]	[-2.53]	[-0.16]	[-1.07]	[-1.15]	[-0.19]	[-0.98]	[-1.24]
Bcareer	0.0408***	0.000279	-0.000504	0.0367***	0.0149	0.00253	0.0188	-0.00528	-0.00688	0.0184	-0.00213	-0.00546
	[4.30]	[0.03]	[-0.06]	[3.92]	[1.54]	[0.27]	[1.49]	[-0.45]	[-0.58]	[1.48]	[-0.18]	[-0.47]
Bage	-0.0661***	0.00276	0.00632	-0.0494***	-0.0366**	-0.00688	-0.0312	0.0161	0.0192	-0.0295	-0.00182	0.0115
	[-4.05]	[0.15]	[0.36]	[-2.93]	[-2.06]	[-0.39]	[-1.19]	[0.56]	[0.68]	[-1.09]	[-0.07]	[0.42]
Assets	1.427**	2.265***	2.361***	1.491**	2.213***	2.565***	0.13	0.432	0.703	0.123	0.719	0.727
	[2.05]	[2.84]	[3.06]	[2.08]	[3.00]	[3.29]	[0.12]	[0.39]	[0.63]	[0.12]	[0.64]	[0.65]
ROA	-1.453	-0.99	-1.214	-1.468	-0.985	-1.02	0.454	0.948	0.985	0.457	1.211	1.188
	[-1.13]	[-0.70]	[-0.90]	[-1.12]	[-0.73]	[-0.76]	[0.23]	[0.45]	[0.47]	[0.23]	[0.58]	[0.57]
Constant	-1.086	-2.102	-3.795	-2.131	-4.927**	-5.124**	-7.954**	-8.369**	-9.861***	-8.040**	-11.10***	-10.29***
	[-0.49]	[-0.87]	[-1.61]	[-0.95]	[-2.10]	[-2.16]	[-2.42]	[-2.50]	[-2.93]	[-2.44]	[-3.28]	[-3.06]
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,989	3,989	3,989	3,989	3,989	3,989	3,941	3,941	3,941	3,941	3,941	3,941
Chi-squared	272.9	329	323.6	299.4	469.6	535.5	91.83	125.2	121	92.04	148.7	155.5
p-value for Chi-squared	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
R-squared	0.118	0.195	0.202	0.131	0.182	0.223	0.046	0.075	0.079	0.047	0.090	0.094

Table 5 presents the results of a logistic regression analysis of the determinants of the probability of appointing male outside directors. The sample analyzed consists of general business firms listed on the First Section of the Tokyo Stock Exchange in the fiscal years 2014-2017 that have a board of corporate auditors. The definitions of each variable are summarized in Table 1. The numbers in the upper row of the table represent regression coefficients and those in parentheses represent z-values based on cluster robust standard errors for each firm. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

First, we examine the impact of the appointment of outside directors in the previous year. Given that it is difficult to directly interpret the regression coefficient values of the logit estimation, we only check the sign of the coefficients. Below, we discuss the economic significance of the regression coefficients. In the results for Female1 in Table 3, R_Odirectors, N_Odirectors, and D2_Odirectors are significantly negative, whereas D1_Odirectors is significantly positive. Conversely, no significant trend is observed for Female2. These results suggest that the lower ratio of outside directors and smaller the number of outside directors, the more likely their companies are to appoint female outside directors to increase the number of board members. However, the results are insignificant when boards have no outside directors in the previous year, and the appointment probability declines when boards have two outside directors. Thus, the aforementioned trend is limited to cases in which boards appoint one outside director and then appoint a female as the second outside director. The results for Male1 in Table 5 show that D0_Odirectors is significantly positive, suggesting that males tend to be appointed first as outside directors. D1_Odirectors is also significantly positive, indicating that females are not the only ones appointed as second outside directors. Table 3 shows that the coefficients for R_Odirectors, N_Odirectors, and D2_Odirectors are significantly negative, indicating that companies are satisfied only fulfilling the external standards required by the Code. This result is consistent with that of Farrell and Hersch (2005), who have found that the likelihood of appointing an additional female director significantly decreases when the board already has one female director. Therefore, the increase in the number of outside directors in the previous year, along with the increase in the number of directors in the current year, is a female-specific trend (Hypothesis 1). Conversely, Table 4 shows no significant trend for either Female1b or Female2b. Therefore, our results do not support Hypothesis 2.

Next, we review the impact of external environmental pressures in Table 3. We examine Sh_Foreign, Sh_Float, Fsales, and F_Odirectors. Sh_Foreign is significantly positive for Female2; almost all are significant at the 10% level. F_Odirectors is significantly negative, while Sh_Foreign is positive at the 10% level, but the consistency declines. The disciplining effect of foreign investors on Japanese firms pointed out in previous studies may promote essential gender diversity efforts instead of tokenism. However, the results in Table 5 indicate that, while no significant trend is observed for Male2, a there is a significantly positive trend for Male 1, but this trend is not conspicuous. Thus, the mechanism by which foreign investors promote the appointment of outside directors tends to be non-uniform across genders. Notably, Sh_Float, which does not affect women, is significantly negative for Male1. Meanwhile, Sh_Float is positive for Male2; although, the trend is inconsistent. Therefore, domestic institutional investors, aware of the difficulty of improving gender diversity in Japan, could have urgently promoted the appointment of male outside directors. The sign of F_Odirectors differs from our expectation. This may be because firms with no female outside directors have promoted

appointments, whereas firms that appointed one female outside director captured the trend without promoting appointments. This corporate behavior may have synchronously occurred within the industry. Fsales is insignificant in all cases, indicating that foreign sales do not place pressure on overseas business activities. Given these results, we conclude that the external pressure presented in Hypothesis 3 does not induce tokenism. Instead, some pressure promotes the appointment of female outside directors in a way that does not increase the number of directors.

The two significant variables having indirect effects on tokenism are D_Fceo and Bsize. The sign of D_Fceo indicates that female CEOs do not promote tokenism. However, given that the results in Table 3 show a consistent trend even for Female2, albeit at a lower level of significance, the results may indicate that companies promote women while taking care of its male-dominated board composition by increasing the number of board members as needed. Bsize is significantly negative, indicating that the larger the board of directors, the less likely it is to appoint women to by increasing the number of directors. However, in the case of the appointment of busy female outside directors in Table 4, Bsize is insignificant for Female1b, but the same trend is observed for Female2b. Additionally, Maxage, D_Multi, Btenure, Bcareer, and Bage are all insignificant, contrary to expectations.

Interestingly, the sign of the coefficient differs for appointing outside directors after a director leaves the board differ. Director turnover can trigger the appointment of female outside directors. However, only in the cases of Female2 in Table 3 and Female2b in Table 4 is To_Mdrt significant. Thus, director turnover does not induce tokenism, suggesting that tokenism may be a distinctly different mechanism from the usual election and dismissal processes that do not involve an increase in the number of directors. Another important point is the difference in the significance of the number of departures between Female2 and Male2. Table 3 shows that To_Mdrt is significantly positive, whereas that To_Fdrt is insignificant. However, Table 5 shows that both To_Mdrt and To_Fdrt are significantly positive. Although various factors may be responsible for the turnover of female directors not leading to the appointment of new female outside directors, this may indicate a lack in progress in terms of gender diversity. Finally, Assets and ROA are both significantly positive for Female1. Given that both variables are insignificant for Female2 and Male2, tokenism tends to occur in situations where firm performance is good.

The analysis results suggest that Japanese firms first appoint one male outside director and subsequently appoint a female director as tokenism (Hypotheses 1). Additionally, the results show that firms already with two or more outside directors, regardless of gender, do not appoint more outside directors. However, because no consistent trend is found regarding the tendency to appoint busy female outside directors, Hypothesis 2 is rejected. Busy female outside directors are expected to have

more experience and skills in board service. Therefore, they are not suitable for token appointments in Japan. Regarding external pressures on firms, unlike Knippen et al. (2019), we do not find the tendency to promote tokenism (Hypothesis 3). Instead, our results suggest that some of these pressures may improve the function of the board of directors.

Marginal effects on the likelihood of increasing the number of outside directors

We examine the economic significance of outside director appointments. Specifically, we estimate the marginal effect of previous outside director appointment status on the probability of appointing another outside director. Considering that this analytical model is nonlinear, we estimate the marginal effect for the average firm (around the mean). Table 6 presents the marginal effect and the numbers in parentheses represent the significance level. The dependent variables used in Tables 3 and 5 are horizontally arranged and the proxy variables for the appointment of outside directors in period t-1 used in Models 2–6 are vertically arranged.

Table 6 Marginal effects on the likelihood of increasing the number of outside directors

	Female1	Female2	Male1	Male2
R_Odirectors (model 2)	-0.048***	-0.011	-0.613***	-0.186***
	[-2.69]	[-0.77]	[-12.60]	[-6.36]
N_Odirectors (model 3)	-0.007***	-0.002	-0.079***	-0.024***
	[-2.99]	[-1.14]	[-14.68]	[-6.45]
D0_Odirectors (model 4)	-0.002	0.007	0.119***	0.006
	[-0.17]	[1.08]	[5.52]	[0.37]
D1_Odirectors (model 5)	0.015***	0.002	0.112***	0.044***
	[3.94]	[0.47]	[11.55]	[7.70]
D2_Odirectors (model 6)	-0.016***	-0.003	-0.139***	-0.047***
	[-4.21]	[-0.88]	[-14.73]	[-8.26]

Table 6 shows the results of estimating the effect of the previous year's outside director status on the probability of appointing an outside director for the year in question. Specifically, we estimate the marginal effects using the mean of each variable. The sample analyzed is general business firms listed on the First Section of the Tokyo Stock Exchange in the fiscal years 2014-2017 that have a board of auditors. The definitions of each variable are summarized in Table 1. The numbers in the upper row of the table represent regression coefficients and those in parentheses represent z-values based on cluster robust standard errors for each firm. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

The analysis indicates that when the number of outside directors appointed in the previous year is zero, the probability of the appointment of Female1 remains the same, while that for Male1 increases by 11.9%. When there is one outside director, the probability of appointing Female 1 increases by 1.5%, while that of appointing Male 1 increases by 11.2%. However, when there are already two or more outside directors, the probability of appointing Female1 decreases by 1.6%, while that of Male1 decreases by 13.9%. These results show a difference of more than ten percentage points in the

probability of appointment, indicating that the impact on the appointment of female outside directors is small. The same is true for the ratio and number of outside directors, suggesting that one reason for low economic significance is the lack of progress in appointing outside directors after meeting the external standards of the Code. The results show that, although tokenism is observed during the appointment of female outside directors, its economic impact is limited.

Prioritizing the appointment of female outside directors

To confirm the robustness of the results for Hypothesis 1, we create dummy variables for the appointment of outside directors in the previous year, separately for men and women. For example, D1_Odirectors for Female is a dummy variable that takes the value of 1 if there is one female outside director in period t-1, and 0 otherwise. Other formulations are the same as those listed in Tables 3 and 5.

Table 7 Impacts of the appointment of outside directors in the previous year by gender

	Female1	Female2	Male1	Male2
D1_Odirectors (model 5)	1.129***	0.201	1.705***	1.551***
	[4.25]	[0.47]	[11.97]	[7.33]
D2_Odirectors (model 6)	-1.214***	-0.366	-2.352***	-1.672***
	[-4.56]	[-0.87]	[-15.47]	[-7.84]
D1_Odirectors for Male	0.526**	-0.171	1.140***	0.963***
	[2.17]	[-0.45]	[8.86]	[4.83]
D2_Odirectors for Male	-0.694***	0.0383	-1.914***	-1.288***
	[-2.83]	[0.10]	[-13.31]	[-6.19]
D1_Odirectors for Female	-1.122**	-1.140**	-0.249	-0.0503
	[-2.30]	[-1.99]	[-1.15]	[-0.16]
D2_Odirectors for Female	NA	NA	-1.06	0.42
			[-1.04]	[0.73]

Table 7 shows the estimated impact of the previous year's status of outside directors by gender on the appointment of outside directors in the relevant fiscal year. The sample analyzed consists of general business companies listed on the First Section of the Tokyo Stock Exchange in the fiscal years 2014-2017 that have a board of auditors. The definitions of each variable are summarized in Table 1. The numbers in the upper row of the table represent regression coefficients and those in parentheses represent z-values based on cluster robust standard errors for each firm. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

The analysis results show that the signs of D1_Odirectors for Female1 and Female2 are significantly negative. Thus, the probability of appointing a new female outside director is significantly lower when there is only one female outside director, supporting the existence of tokenism. Conversely, the signs of D1_Odirectors for Male1 and Male2 are significantly positive. Additionally, the sign for Female1 is also significantly positive, confirming that the appointment of a female as the second outside director is accompanied by an increase in the number of directors.

Next, we examine whether the appointment of females as internal directors and auditors is a form of tokenism.[18] Gender diversity on boards is promoted to ensure that the diverse skillsets of outside directors are reflected in decision-making. However, tokenism may arise when a company appoints a female internal director or auditor instead of a female outside director. Therefore, we create a dummy variable (D1_Female_Auditors) that takes the value of 1 when there is one female auditor in period t-1, and 0 otherwise, and another dummy variable for female internal directors (D1_Female Internal directors). We rerun the test under the same formulation as before.

Table 8 Impacts of the appointment of female internal directors and auditors in the previous year

	Female1	Female2	Male1	Male2
D1_Female_Auditors	1.102**	0.776	-0.176	-0.213
	[2.39]	[1.35]	[-0.82]	[-0.66]
D1_Female Internal directors	-0.495	0.498	0.478*	0.0755
	[-0.82]	[0.69]	[1.83]	[0.17]

Table 8 shows the estimated impact on the appointment of outside directors for cases with one female statutory auditor and one female in-house director in the previous fiscal year. The sample analyzed consists of general business companies listed on the First Section of the Tokyo Stock Exchange in the fiscal years 2014-2017 that have a board of corporate auditors. The definitions of each variable are summarized in Table 1. The numbers in the upper row of the table represent regression coefficients and those in parentheses represent z-values based on cluster robust standard errors for each firm. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

Table 8 shows that most signs of the coefficients are insignificant and that all variables are positive, suggesting that this possibility is unlikely. The significantly positive sign of D1_Female_Auditors for Female1 suggests that firms with female auditors tend to appoint female outside directors as tokens. Considering that the study period coincides with the period when Japanese companies started to appoint female outside directors, many companies in the male-dominated Japanese society could have had a negative perception about appointing female outside directors, even if they are "token" female directors. In such a situation, the challenge of appointing female outside directors as tokens may be lowered because of less resistance to women in companies with women as auditors.[19] The sign of D1_Female Internal directors is positive for Male1 at the 10% level, indicating that having one woman on the board of directors promotes the appointment of male outside directors. This may be because

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[18] Kirsch and Wrohlich (2020) that when the German law requires a 30% gender quota for the supervisory board (Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen), the gender quota for supervisory boards (supervisory boards) tends to positively impact the presence of women on the executive board (executive boards).

[19] Another possible interpretation is the possibility of appointing a female outside statutory auditor as an outside director to satisfy the formal requirements. In practice, the case of appointing a previously acquainted auditor who is convenient for management as a director (and vice versa) without considering the existence of their skills and suitability as a director is well-known as a lateral appointment. It has been pointed out that this behavior may hamper corporate governance. A review of this sample shows that the number of cases in which a female outside corporate auditor from the previous year was appointed as an outside director in the current year was limited to five observations, limiting the possibility that a lateral appointment may have occurred.

companies consider that one female inside director on the board of directors is sufficient to support the appointment of male outside directors. Although this trend indirectly affects the appointment of female outside directors, it can be considered as evidence of tokenism.

Does the appointment of female outside directors through tokenism improve a firm's performance?

We do not expect tokenism to have any effect on corporate performance because it does not improve the function of the board of directors. Therefore, we examine corporate performance changes before and after female outside directors' appointments. Specifically, we conduct propensity score matching (PSM) under the formulation of Model 3 and analyze the differences in ROA, Tobin's q (Q), and abnormal accruals (ABACC) as proposed by Dechow et al. (1995). We ascertain tokenism's impact on audit fee (Audit Fee).[20] ROA and Q are proxy variables for the advisory function, while ABACC and audit fee are proxy variables for the monitoring function. The PSM method sets the caliper in the empirically used range of 0.2σ. The PSM method is one-to-one matching without replacement. To confirm the validity of the parallel trend assumption, we also check the increments from period t-2 to period t and from period t to period t+2.

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[20] Univariate comparisons of the outcome variables before and after matching are shown in Appendix 1.

Table 9 Difference-in-difference analysis

		Female1				Male1			
		Treat	Control	Difference	t-stat	Treat	Control	Difference	t-stat
ΔROA	[t-2,t]	0.0%	1.0%	-1.0%	-1.02	-0.3%	0.1%	-0.4%	-0.97
		35	35			226	227		
	[t-1,t+1]	0.0%	-0.2%	0.1%	0.14	-0.1%	-0.1%	0.1%	0.12
		34	35			225	220		
	[t,t+2]	-1.5%	-1.8%	0.4%	0.28	-0.3%	-0.7%	0.4%	0.91
		33	35			223	216		
ΔQ	[t-2,t]	0.097	0.520	-0.423	-1.91 *	0.008	0.063	-0.056	-1.05
		35	34			224	225		
	[t-1,t+1]	0.013	0.107	-0.095	-0.41	-0.018	0.065	-0.084	-1.19
		34	35			225	219		
	[t,t+2]	0.014	-0.089	0.103	0.57	0.058	0.062	-0.003	-0.05
		33	35			223	214		
ΔABACC	[t-2,t]	-0.003	-0.005	0.002	0.21	0.000	-0.001	0.001	0.20
		32	32			205	204		
	[t-1,t+1]	-0.011	-0.007	-0.004	-0.55	-0.002	-0.001	-0.001	-0.26
		32	32			204	198		
	[t,t+2]	0.001	-0.008	0.009	1.05	-0.002	-0.001	-0.001	-0.26
		29	32			201	189		
ΔAudit Fee	[t-2,t]	5.5	5.8	-0.4	-0.05	4.0	2.2	1.8	0.48
		35	35			215	205		
	[t-1,t+1]	1.1	9.3	-8.2	-1.16	1.4	3.6	-2.2	-0.96
		33	35			217	203		
	[t,t+2]	3.9	10.7	-6.8	-0.78	4.6	4.8	-0.2	-0.06
		32	35			213	202		

Table 9 presents the results of the difference-in-differences analysis for the periods before and after the appointment of outside directors. The numbers in the table represent the mean value of the change in the outcome variable in each period. The numbers below the mean represent the number of observations. The sample analyzed comprises general business firms listed on the First Section of the Tokyo Stock Exchange in the fiscal years 2014-2017 that have a form of company with a board of auditors. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

Table 9 presents the results of the difference-in-differences analysis. It presents the mean of the increments for each variable over a given period, and the numbers below represent the number of observations. A significant difference is observed at the 10% level in the increment from period t-2 to period t in Q; however, all the other values are insignificant. This tendency is true for Female1 and Male1. Thus, tokenism does not affect the performance of female outside directors or the performance of male outside directors, even when the number of directors has increased. This may be because many Japanese firms focus on meeting the Code's requirements. However, the change does not appear to impact corporate performance, unless it is significant such as in the case of most boards comprising outside directors. Therefore, we find no impact of tokenism on performance.

7. Conclusion

We take the early stage of the introduction of the Code as a quasi-natural experiment to check whether women's participation in management is observed in Japan, similar to other countries. In the early stages following the Code's introduction, companies focused on appointing two outside directors to meet the requirements. Companies with a small ratio and few female outside directors tried to comply to the requirement. However, there is no indication that they actively attempted to employ female outside directors. To meet the Code's requirement, one male outside director was first appointed, followed by a woman outside director as tokenism. Unlike in other countries, there is no evidence of external pressure. Although there is a tendency to appoint female outside directors when the CEO is female, some results indicate the existence of tokenism. The number of female directors appears to increase as needed while taking care of existing male directors. Furthermore, the departure of female outside directors does not lead to the appointment of new female outside directors. However, we find that the appointment of a female as the second outside director is tokenism when there is one female auditor—a position unique to Japan.

When a busy female outside director is appointed, tokenism does not exist, even if a male is appointed as the first outside director and a female is appointed as the second outside director. Busy female outside directors may be expected to have more experience and skills; therefore, they are less suited for a token appointment. In Japan, where the role of women in corporate management has hardly progressed, the Code's introduction has undeniably promoted the appointment of female outside directors. However, this does not seem to have had a significant economic impact. Additionally, tokenism is found in companies that meet the external criteria of the Code requirements; although, it is not observed when female outside directors have experience and skills.

This study has practical implications. When appointing female outside directors in the future, organizing the social infrastructure (e.g., introducing a quarter system [21] and skill matrix) and establishing a transparent appointment system (e.g., clarifying the appointment process through a nominating committee) is necessary. Furthermore, companies must make efforts to realize "task-based" diversity,[22] in which appointments are made based on abilities, skills, and experience. If socioeconomic conditions help narrow the gender gap, then the number of female outside director candidates increases and companies can select diverse directors from a larger pool of high-quality human resources regardless of gender. Moreover, as argued in Rosenblum (2019), develop legislation

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[21] In the U.S., there has been mixed debate over rulemaking to enhance board member diversity; Nasdaq's new rule to enhance board member diversity in 2021 was welcomed by the industry and practice community but has become a litigious issue with some taking a conservative view. In addition, a California law requiring publicly traded companies to increase board diversity in 2022 has been ruled unconstitutional (Nikkei 2022/9/2).

[22] Joshi and Roh (2009) and Horwitz and Horwitz (2007) and is said to be "demographic" diversity when classified by gender, etc., and "task" diversity when classified by ability, skills, and experience.

is sufficient and it is more important to coordinate public efforts with private efforts, that is, it is essential that legislation and institutional investors work together.

However, this study has several limitations. This study focuses on the early days of the Code's introduction. The Code has since required appointing female directors. Recently, TSE required efforts to achieve the proportion of female directors/auditors and senior executives to be more than 30%. There is also a strong request from the so-called "Big 3" foreign investors, as shown by Gormley et al. (2023). Hence, extending the analysis period could yield more useful conclusions; this can be addressed in the future. Furthermore, unlike Coles et al. (2008), this study does not determine the optimal size of the board of directors. Increasing the board of directors may involve appointing or replacing incumbent male directors. As noted by Knippen et al. (2019), considering the motivations and determinants of changes in board size is an interesting topic that can be explored in future research.

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Appendix 1 Univariate comparison

		Female1				Male1			
		Treat	Control	Difference	t-stat	Treat	Control	Difference	t-stat
ROA	Full sample	11.2%	9.8%	1.3%	1.97 **	9.5%	9.9%	-0.4%	-1.22
		88	4,125			447	3,766		
	PSM	13.0%	10.6%	2.4%	0.88	9.6%	9.8%	-0.2%	-0.33
		35	35			227	227		
Q	Full sample	1.460	1.392	0.068	0.54	1.259	1.410	-0.151	-2.58 ***
		88	4,125			447	3,766		
	PSM	1.662	2.053	-0.390	-0.81	1.287	1.394	-0.106	-1.14
		35	35			227	227		
ABACC	Full sample	0.025	0.026	-0.001	-0.37	0.031	0.026	0.005	3.24 ***
		79	3,708			406	3,381		
	PSM	0.027	0.033	-0.005	-0.78	0.032	0.027	0.005	1.49
		32	32			208	205		
Audit Fee	Full sample	120.0	90.1	29.9	1.28	64.6	93.8	-29.2	-2.64 ***
		87	3,938			427	3,598		
	PSM	123.1	63.9	59.3	1.27	61.9	79.8	-17.9	-1.34
		35	35			218	206		

Table A-1 shows univariate comparisons of the outcome variables used in the difference-in-differences analysis. For each of the outcome variables, the mean before PSM (Full sample) and after PSM (PSM) are shown. The number at the bottom of the mean represents the number of observations. The sample analyzed comprises general business firms listed on the First Section of the Tokyo Stock Exchange in the fiscal years 2014-2017 that have a form of company with a board of auditors. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.