Does stakeholder-oriented governance mitigate a dark side of shareholder-oriented governance? The case of earnings management

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Abstract

This study investigates the role of shareholder- and stakeholder-oriented governance in amplifying or mitigating the effect of stock option pay on earnings management of Japanese firms. We first show a positive relationship between the adoption of stock options and earnings management. Our finding supports the argument that in Japan managers of firms that use stock option pay engage in earnings management to increase their private benefits and to meet investors' expectations. However, this managerial behavior is contingent on the governance structure of the firm. Additional results show that, while foreign institutional shareholders enhance the positive impact of stock options on earnings management, inter-firm stakeholder governance mechanisms mitigate such positive effect. Our empirical analyses support the argument that inter-firm corporate governance can function as a substitute for independent boards in reducing earnings management triggered by shareholder-oriented governance, suggesting that the stakeholder-oriented governance can serve the interests of shareholders under some circumstances.

Keywords: agency theory; earnings management; foreign ownership; stakeholder governance; stock option pay

JEL Classification: G32, G34.

EFM Classification: 150, 180.

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1. Introduction

Comparative corporate governance literature has made a stylized distinction between shareholder- and stakeholder-oriented models (Aguilera & Jackson, 2003; Hall & Soskice, 2001). On the one hand, Anglo-American institutional contexts are usually categorized as a shareholder-oriented model, where managers, regarded as the agents of shareholders, are expected to seek greater firm value and higher investment returns following agency theoretic or shareholder logic (Desender, Aguilera, Lamy, & Crespi, 2016; Geng, Yoshikawa, & Colpan, 2016). On the other hand, countries such as Germany and Japan are considered to follow stakeholder logic, where managers balance the interests of key stakeholders in their decision-making (Aguilera, Filatotchev, Gospel, & Jackson, 2008; Ahmadjian & Robbins, 2005). Despite the persisting variety in corporate governance (hereafter, CG) practices across countries (Whitley, 1999), the focus on shareholder interests has spread globally (Guillen, 2000; Yoshikawa & Rasheed, 2009). As shareholder-oriented governance practices are increasingly adopted by firms in countries with a stakeholder-oriented tradition, a question that follows concerns how the blending of different governance mechanisms will affect managerial behavior.

In accordance with the institutional logic perspective (Thornton, 2004), co-existence of foreign and local governance practices that prevail in the domestic market may have varying implications, depending on the (mis)fit of logics between those practices (Ahmadjian & Robbins, 2005; Geng et al., 2016). This study explores the potential substitution effects between the two by focusing on the implications of a specific shareholder-oriented practice, namely, the adoption of

stock option pay and its impact on earnings management (hereafter, EM). In particular, we examine how the blending of foreign institutional shareholders, whose primary objective is higher financial gains, and stakeholder-oriented governance elements, characterized by (non-financial) relational objectives, affect EM induced by the adoption of stock option pay, a shareholder-oriented practice. We first observe that the use of stock options increases EM, which tends to distort disclosed information (Badolato, Donelson, & Ege, 2014). We theorize that managers are motivated to adopt stock option pay to benefit themselves as well as to send a signal to capital market participants that the firm prioritizes the shareholders' interests, which in turn creates incentives for managers to disclose favorable earnings. We next compare the effect of foreign investors with that of traditional stakeholder-oriented governance, i.e., the shareholdings by affiliated companies and board members from such companies, on EM and report that foreign ownership accentuates the managers' involvement in EM practices, while stakeholder governance mitigates it. We thus contend that, while return-oriented foreign investors reinforce managerial incentives to engage in EM, stakeholder-oriented CG elements can function to mitigate a downside of shareholder-oriented governance induced by stock option pay. This implies that stakeholder governance mechanisms, which aim to curve managers' shareholder-orientation, may also serve the interest of return-oriented foreign investors who may not be able to or have less incentives to monitor managers' engagement in EM due to the high monitoring costs (Kim, Miller, Wan, & Wang, 2016).

Our study contributes to comparative CG research in multiple ways. First, previous literature (e.g., Desender et al., 2016) claims that stakeholder-oriented practices do not protect the interests of return-oriented investors; it is argued that stakeholder governance does not resolve or address the agency problem that those investors face because the interests of stakeholders and those of

return-oriented foreign investors are divergent. However, our study shows that, while large foreign ownership positively moderates the effect of stock option pay on EM, the practice of which may not always be consistent with shareholder interests (as we are referring to accounting figures being influenced by the managers' discretionary treatment), stakeholder governance mechanisms discourage EM induced by stock option pay. We thus show that the interests of stakeholder-oriented affiliated companies and return-oriented foreign investors may be aligned under some circumstances. Our finding that stakeholder-oriented governance discourages a practice that may not serve the interests of return-oriented investors challenges the pervasive notion that stakeholders fail to protect the shareholders' interests.

Second, we advance the CG complementarity/substitution perspective (Aguilera et al., 2008) by incorporating the institutional logic perspective, thereby showing that although shareholder-oriented practices lead to EM, the presence of traditional stakeholder-based governance in Japan can help providers of external capital, including foreign investors, to obtain earnings information less influenced by discretionary accounting practices. This suggests that the goals of governance mechanisms that follow different institutional logics can be aligned under some circumstances. While stock option pay and large foreign institutional ownership should lead managers to focus more on financial performance, the monitoring and disciplining effects attributable to these factors may not necessarily prevent managers from engaging in EM (Burns & Kedia, 2006; Kim et al., 2016). Conversely, this study shows that other governance elements from the stakeholder-oriented model mitigate managers' incentives to manage earnings figures disclosed to capital markets, thus highlighting that monitoring mechanisms from distinct CG models affect EM differently but serving the aligned goal (i.e., disciplining managers to disclose accurate financial information

Last, we show that the adoption of stock options increases EM also in a stakeholder context such as Japan. Although this finding is consistent with prior studies based in the U.S. (Burns & Kedia, 2006; Healy, 1985; Zhang, Bartol, Smith, Pfarrar, & Khanin, 2008), our theorization for this effect slightly differs from the arguments proposed thus far in the literature, which is partly due to the characteristics of the research context investigated. Since the proportion of stock-based pay in total executive compensation is much lower in Japanese firms than in their U.S. counterparts (Kubo, 2010; Pan & Zhou, 2018), our empirical evidence suggests that Japanese managers engage in EM not only to increase their private benefits but also to send a signal to capital markets about their firm's focus on shareholders and financial performance. Since Japanese firms have been under increasing pressure to improve financial returns, especially because of the Japanese firms' lack of emphasis on profitability (Ahmadjian & Robbins, 2005), managers have incentives to deal with capital market pressures by resorting to EM, thereby enhancing their reputation as competent managers. Hence, while the private benefit and signaling incentives are not mutually exclusive, we present here a somewhat different mechanism for explaining managerial behavior.

2. Literature background

2.1. Complementarity/substitution and the institutional logic of corporate governance mechanisms

Some CG mechanisms may complement one another, while others can function as substitutes and constitute different CG elements to achieve the same governance objectives. One of the key ideas in this perspective is that there is no one best way to achieve the same outcomes from a set of CG practices (Aguilera et al., 2008; Aoki, 1994). For example, independent boards are considered as an essential mechanism to mitigate managerial opportunism (García Osma & Guillamón-Saorín, 2011) and performance-linked executive compensation functions to align

managerial and shareholder interests in agency theoretic research. Hence, intense monitoring by independent boards and performance-linked executive compensation as an incentive mechanism may either complement or substitute for each other (Aguilera et al., 2008; Desender et al., 2016). However, some CG elements that are common in Anglo-American countries, such as independent boards and a market for corporate control, may be missing in other institutional contexts. Yet, alternative mechanisms, such as large and concentrated ownership (e.g., family owners), may function as a substitute for missing ones. Hence, CG elements not only complement but can also substitute for each other across different institutional contexts. Indeed, different governance mechanisms in different contexts may play a similar function (i.e., managerial monitoring role). However, the objectives of those governance mechanisms across different contexts are not necessarily the same; some may function to enhance and protect the interests of stakeholders such as employees and creditors, while others aim to pursue higher financial outcomes. This suggests that goal incongruence of different governance mechanisms may prevent them from having similar effects and outcomes.

Indeed, CG elements that represent different logics, typically whether the interests of shareholders or key stakeholders receive greater attention (Ahmadjian & Robbins, 2005; Yoshikawa, Phan, & David, 2005), are expected to lead to different outcomes. In this respect, recent research regards CG mechanisms as representations of certain institutional logics (Aguilera, Judge, & Terjesen, 2018; Desender et al., 2016), which are defined as socially constructed assumptions, values, norms, and rules (Thornton & Ocasio, 1999). For example, equity-linked compensation such as stock option pay is perceived to represent shareholder logic, while strategic or relational corporate shareholding is considered representative of stakeholder logic (Geng et al.,

2016). Therefore, the goals of different governance mechanisms that follow different institutional logics are not necessarily the same.

Furthermore, while most institutional contexts often have a dominant logic (Boivie, Bednar, Aguilera, & Andrus, 2016), the existence of multiple logics in a given institutional field is also possible (Greenwood, Diaz, Li, & Lorente, 2010; Thornton, 2004). Previous research usually assumes that the interests of stakeholders and shareholders are not consistent, sometimes leading to conflicts between them (Ahmadjian & Robbins, 2005). Generally, stakeholders or shareholders who represent key stakeholders' interests pursue non-financial goals, while return-oriented shareholders aim to maximize financial returns (David, O'Brien, Yoshikawa, & Delios, 2010; Geng et al., 2016). Accordingly, governance practices supported by stakeholders may not serve the interests of shareholders, as they are not designed to address the agency problem that return-oriented shareholders face (Desender et al., 2016). Therefore, governance substitutions do not necessarily happen due to the diverse and even conflicting goals of mechanisms that follow a different institutional logic.

However, even though each CG model is characterized by its own logic, some CG elements from a different model may substitute or complement one another under certain circumstances, e.g., when managers engage in EM in a context like Japan. The respective target stakeholders (or return-oriented shareholders) may benefit from the presence of such complementarities (the presence of stakeholder monitoring) provided that the drawbacks of the CG structures from one model are mitigated by the elements from the other. To examine this issue, this study focuses on the contrasting effects of different governance mechanisms on EM.

2.2. Diffusion of the shareholder-oriented model

Despite persisting differences in CG structures across countries, shareholder-oriented practices such as equity-linked executive pay and independent boards based on agency or shareholder logic are increasingly adopted, even in countries with a long stakeholder-oriented tradition (Yoshikawa & Rasheed, 2009). Global institutional investors that manage portfolios across national boundaries have been one major force behind the diffusion of such practices, typically from the Anglo-American contexts to others (Fiss & Zajac, 2004; Geng et al., 2016). When new practices developed abroad enter regions with different norms, values, and systems, there is usually some resistance from local actors (Ahmadjian & Robins, 2005). For example, awarding stock options to executives was not well received in Germany when it was first legalized in the late 1990s (Sanders & Tuschke, 2007). Similarly, corporate downsizing due to poor firm performance was considered taboo in Japan due to its contradictions with the conventional Japanese practice of lifetime employment (Ahmadjian & Robinson, 2001). Nevertheless, when new practices are in the interest of powerful actors or there is a strong institutional force to impose such practices, the adoption can still take place.

The diffusion of shareholder-oriented practices to settings with a stakeholder-oriented tradition results in a blending of two governance models or hybrid models. Drawing from the governance substitution perspective, which emphasizes the view that there is no one best way to combine CG elements (Aguilera et al., 2008), we explore the potential substitution effects between the two models in a context where both coexist. For instance, although independent directors play a crucial role in monitoring managers when ownership is dispersed, other mechanisms, such as monitoring by affiliated firms, may function as a substitute in some contexts where there are no independent boards (Aoki, 1994; Sheard, 1994). Extending this perspective, we examine how

traditional stakeholder-oriented practices in Japan might mitigate the managers' capital market focus, which is a priority in the Anglo-American model. To this aim, an analysis of EM behavior is especially suitable because the degree of EM enables us to capture the managers' desire to meet capital market expectations (Burns & Kedia, 2006; Healy, 1985) by engaging in a practice that may obscure the real underlying performance of the firm. However, this practice is not beneficial either to stakeholders that pursue non-financial goals or to shareholders that seek financial returns as we will discuss later.

2.3. Traditional governance model with stakeholder logic in Japan

Many institutional contexts other than the Anglo-American countries embrace different governance logics, such as the stakeholder logic and the state logic (Aguilera et al., 2018; Greve & Zhang, 2017). In Japan, managers traditionally did not always prioritize shareholder interests but rather sought to balance the interests of key stakeholders, as done in some Continental European countries (Ahmadjian & Robinson, 2001; Dore, 2000). The ownership structure of Japanese firms allowed managers to avoid focusing exclusively on maximizing profitability and firm value. There is indeed some anecdotal evidence that suggests that, compared to their U.S. counterparts, the more collectivistic Japanese managers are less short-term oriented and hence they are less likely to manipulate performance measures (Chow, Kato, & Merchant, 1996).

The majority of shares of Japanese listed firms have traditionally been owned by domestic firms that were often labeled "stable," "relational," or "strategic" investors (Colpan, Yoshikawa, Hikino, & Del Brio, 2011; David et al., 2010). These shareholders held shares for mutual protection from external interference, the promotion of stable business relationships, and mutual monitoring rather than to pursue financial returns from their shareholdings (Gerlach, 1992; Sheard, 1994). In

addition, Japanese boards have long been dominated by executives who are firm insiders, thus enabling the boards to function similar to top management teams (Ahmadjian & Okumura, 2005). While there were often a small number of outsiders on Japanese boards, those board members were usually non-independent outsiders who came from affiliated companies with which the focal firm had business relationships (Gerlach, 1992; Lincoln & Gerlach, 2004).

Although the business system just described still exists in Japan, there have been salient changes related to CG. After the long economic recession that started in the early 1990s, foreign institutional investors have increased their investments in Japanese stocks (Ahmadjian & Robbins, 2005; David et al., 2010). Moreover, since the legalization of stock option pay in 1997, Japanese firms began to adopt this type of compensation in response to pressures from portfolio investors and other capital market participants, who believed that Japanese managers should be incentivized to pay greater attention to the firms' stock price (Miyoshi & Nakao, 2007; Uchida, 2006). These developments suggest that Japanese managers are being increasingly exposed to shareholder-oriented governance; however, at the same time, the traditional local governance components, such as shareholding by domestic firms and boards with affiliated outsiders, still exist. Such coexistence presents an ideal setting to study how shareholder- and stakeholder-oriented governance practices interact with each other.

3. Hypotheses

3.1. The adoption of stock option pay

The rising capital market pressure that emerged in the 1980s in the U.S. created a growing influence of fund managers and financial analysts who tracked quarterly earnings. This trend has subsequently led to the short-term orientation of American executives (Dobbin & Jung, 2010).

Prior works support that stock option grants in U.S. firms have further facilitated managerial short-termism (Jensen & Murphy, 1990), leading managers to focus on short-term stock performance. Experimental research also suggests that, when transparency is lacking, stock ownership can create myopic self-interest behavior (Rose, Mazza, Norman, & Rose, 2013), which can in turn translate into aggressive financial reporting. As a result, stock option pay has created a managerial incentive to manage earnings so that firms can report accounting figures that are more in line with analysts' forecasts and the capital market participants' expectations (Dobbin & Jung, 2010; Zhang et al., 2008). Stock option compensation also encourages managers to raise the stock price above the strike price so that they can enjoy financial benefits (Harris & Bromiley, 2007). Indeed, previous studies show that EM among large U.S. firms has increased significantly over time, largely due to managerial emphasis on shareholder value as well as to the use of stock options to remunerate executives (Dobbin & Zorn, 2005; Efendi, Srivastava, & Swanson, 2007).

EM practices have often been investigated in previous research to disentangle the agency costs of managerial incentive alignment mechanisms such as equity-based compensation. There is indeed some empirical evidence that supports the view that managers are motivated to manage disclosed earnings for their private financial benefits (Martin, Wiseman, & Gomez-Mejia, 2019; Zhang et al., 2008). While many studies have been conducted in the U.S., Japanese managers have also been found to use EM to increase their executive bonus pay (Shuto, 2007). Beyond the direct financial gains, managers may have another reason to engage in EM, namely, to enhance their reputation (Bowen, DuCharme, & Shores, 1995). In fact, thanks to EM practices, managers can develop a positive image of their own managerial competence by showing a steady performance growth (Teshima & Shuto, 2008). An improved managerial reputation can send a signal to shareholders and capital markets that a firm is managed by highly capable managers. In addition,

as Japanese firms are often accused of low profitability and of not prioritizing the interests of shareholders (Colpan, Yoshikawa, Hikino, & Miyoshi, 2007; Watanabe & Yamamoto, 1992), Japanese managers have incentives to address such accusations by managing disclosed earnings.

There is, however, a view that EM may not necessarily be detrimental to shareholders and that it can even sometimes be beneficial (Healy & Wahlen, 1999; Jiarporn, Miller, Yoon, & Kim, 2008; Ronen & Yaari, 2008). The main benefits of EM derive primarily from its use to convey private information to external parties, and hence to reduce information asymmetries between insiders and outsiders. The effects of EM can also be ambiguous due to managers' overlapping motives to manage earnings. In addition to being attributable to the abovementioned private benefits, EM can be simultaneously driven by the managers' intentions to manage earnings volatility and mitigate large stock price fluctuations (Healy & Wahlen, 1999; Ronen & Yaari, 2008). Regardless of the primary motivations behind EM and the underlying nature of such motivations (i.e., beneficial, detrimental, or neutral), it is indisputable that managers always gain some private benefits from this practice—e.g., direct financial gains or intangible benefits such as a positive reputation—, whereas the costs in terms of managerial time and other firm resources to conduct EM are borne by the firm as a whole. Hence, the level of EM desired by managers (to achieve their personal benefits) likely deviates from the optimal level of EM from the firms' and shareholders' perspectives (Teshima & Shuto, 2008).

In our research context, we regard that the motives behind EM induced by the adoption of stock option pay are the managers' attempt to gain financial benefits and also to enhance their own reputation by catering to the shareholders' interests and by meeting the expectations of capital markets. Our interpretation of EM is consistent with García Osma and Guillamón-Saorín (2011). These authors document that EM is positively associated with impression management in annual

results press releases, which is a process whereby managers try to distort readers' perceptions of corporate achievements. The focus on managerial reputation is especially important in this study. Japanese firms first resorted to stock option pay partly in response to pressures from portfolio investors, who believed that Japanese managers should be incentivized to emphasize shareholder value (Miyoshi & Nakao, 2007; Uchida, 2006), consequently the adoption of stock options to remunerate managers has increasingly spread among Japanese firms (Kato, Lemmon, Luo, & Schallheim, 2005). However, the stock-based pay proportion of total executive compensation in Japanese firms remains extremely low compared to that in their U.S. and even European counterparts (Pan & Zhou, 2018). Consequently, the small amount of stock options granted to managers may not provide strong enough financial incentives. Despite this limitation, many Japanese firms have embraced this compensation practice partly because it can send a signal to capital market participants that managers heed their advice and care more about firm stock price. This argument suggests that managers are motivated to engage in EM not only to realize private financial gains, but also to convince external parties that managers prioritize shareholders and capital market participants, thereby enhancing their reputation. We therefore predict the following.

Hypothesis 1 (H1). *The adoption of stock option pay increases EM.*

3.2. Moderating role of return-oriented foreign investors

One of the key agents that bring the shareholder logic to the Japanese context is the foreign institutional investor. While domestic shareholders have traditionally been major players in CG in Japan, the presence of foreign institutional investors has continued to increase since the 1990s (Aguilera, Desender, Lamy, & Lee, 2017; Ahmadjian & Robbins, 2005), replicating the trend observed in other countries facilitated by globalization and the foreign institutional investors' ease

of access to other markets (Useem, 1998). These are mostly institutional investors from the U.S. and the UK; investors from the U.S. accounted for 44.2% of total foreign shareholdings in Japanese firms, while those from the UK accounted for 22.1% in 2007 (Bank of Japan, 2008). Unlike domestic shareholders that hold shares for strategic reasons, foreign investors mainly seek financial returns (Aguilera et al., 2017; David et al., 2010). Likewise, foreign investors increasingly follow shareholder logic, prioritizing shareholder value when they invest abroad (Ahmadjian & Robbins, 2005; Desender et al., 2016).

Because of their focus on financial returns, foreign institutional investors exert pressure on their investee firms' management to show good financial performance. These foreign investors can influence managers through their voice and exit. They can voice their views through voting at the general shareholder meeting by casting negative votes on director (including executive director) appointments and renewals. They can also use an exit option to put pressure on managers. Given that foreign investors tend to trade shares much more frequently than domestic strategic investors do, their investment behavior significantly affects stock prices (David, Yoshikawa, Chari, & Rasheed, 2006). In fact, over 50% of the total trading on the Tokyo Stock Exchange in 2007 was done by foreign investors (Tokyo Stock Exchange, 2008). Japanese managers have thus strong incentives to pay close attention to those investors' expectations.

Prior research on the effects of institutional investors on EM is mixed. While domestic institutions and institutional directors are expected to reduce EM (García Osma & Gill-de-Albornoz, 2007), the influence of foreign institutional ownership is unclear. This is because domestic institutions and institutional investors with board representation have the hometown advantage, such as familiarity with local accounting rules, culture, and norms, as well as easier access to managers and the facilities of local firms (Kim et al., 2016; Liu, Chung, Sul, & Wang,

2018). Conversely, foreign investors are assumed to have significant information disadvantages concerning local firms and hence incur higher monitoring costs. Lel (2019), however, argues that foreign investors can play a role in curbing EM in certain cases, i.e., especially in weak investor protection countries. Interestingly, his comparative study shows that foreign investors that are independent of their investees (pressure-resistant) have no impact on the EM behavior of their Japanese investees, while those with business relationships with their investees (pressure-sensitive) tend to reduce EM. These findings are contrary to the results for firms in most other countries in the same study. As the findings on Japanese firms are not consistent with the author's predictions, the study does not provide clear evidence for the negative effect of foreign investors on EM in Japan, especially given that Japan exhibits a fairly good investor protection level (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000). Unlike the rationale in Lel's study, investors with a relatively small stake, as is usually the case of foreign shareholders in Japanese firms, typically have less incentive to monitor managers because the benefits of monitoring are spread over many shareholders, even though the investor who supervises carries all the costs (Bebchuk, Cohen, & Hirst, 2017). Although total shareholding by foreign institutions increased to approximately 30% in 2010 in Japan, each foreign institutional investor typically does not have a block position in any particular firm, and their holdings remain fragmented (Miyajima, Hoda, & Ogawa, 2015).

Accordingly, due to significant information disadvantages, among other reasons, foreign investors will incur higher monitoring costs and are thus less likely to scrutinize managerial behavior. Instead, foreign investors put pressure on Japanese firms to improve financial performance through voice and exit. Therefore, when firms adopt stock option pay to signal to capital markets their emphasis on shareholders and the firm's financial performance, the presence

of foreign investors should further incentivize managers to engage in EM. In this way, they can justify performance achievements that meet the foreign investors' expectations and in turn enhance their own reputation. Hence, we propose the following.

Hypothesis 2 (H2). *Foreign ownership positively moderates the effect of the adoption of stock option pay on EM.*

3.3. Mitigating role of stakeholder-oriented governance: Inter-firm governance mechanisms

In the CG model that prevails in Japan, stakeholder governance can be practiced by domestic corporate shareholders and board members from affiliated companies. To secure business transactions, domestic corporate shareholders own shares in other firms, thereby shielding firms from capital market pressure and protecting the interests of key stakeholders, such as employees, managers, and affiliated companies (Gedajlovic & Shapiro, 2002; Yoshikawa et al., 2005). Long-term ties with partner firms are highly valued in this system, and managers thus do not consider shareholder value maximization as their primary goal (Ahmadjian & Robbins, 2005; Gerlach, 1992). Domestic firms are embedded in this stakeholder-oriented system through interfirm (i.e., *keiretsu*) networks (Lincoln & Gerlach, 2004), and the shares that domestic firms own in other firms are not held for financial benefits from dividends or capital gains. Hence, those firms do not put pressure on the affiliated companies in which they hold shares to enhance profitability and stock prices. Furthermore, they may prefer that their partners exhibit stable growth rather than higher short-term profits, so that they can enjoy stable transaction flows over time (David et al., 2010; Gerlach, 1992).

Because the shareholders who are business and alliance partners have different priorities, they are likely to be more careful about managerial behavior in their investee firms when these

firms adopt stock option compensation and signal a greater capital market orientation. Under such circumstances, strategic corporate shareholders may recognize that managers could be inclined to pay greater attention to short-term financial performance and stock prices at the expense of other stakeholder priorities. Further, such an orientation may lead to excessive EM that will not be beneficial to corporate shareholders. At the same time, since the close interfirm ties of strategic corporate shareholders often enable them to have access to proprietary business information, they are in a better position to track and monitor the financial results of their affiliated companies (Lincoln & Gerlach, 2004; Sheard, 1994). Due to their close ties, they are also in a good position to assess the competence of managers of the firms in which they invest.

Although managers may be motivated to use EM to show a steady growth, and thereby to convey a better image of their managerial competence (Teshima & Shuto, 2008), corporate shareholders' access to accurate financial information, which allows them to easily detect discretionary accounting behavior, as well as their ability to assess the managers' capability directly without the need of relying exclusively on financial achievements may discourage those managers from engaging in this accounting practice. The presence of large corporate shareholders may thus mitigate the managerial propensity to resort to EM. Therefore, we expect that domestic corporate shareholders mitigate the impact of stock option pay on EM. Thus, we formulate our prediction as follows.

Hypothesis 3a (H3a). *Corporate ownership negatively moderates the effect of the adoption of stock option pay on EM.*

Affiliated outside directors can exert a similar influence on the managers' EM practices in Japan. In agency theory research, independent outside directors rather than affiliated outsiders are expected to play a managerial monitoring role, thereby addressing potential agency gaps between

shareholders and managers. One of the key assumptions here is that those directors represent the investors' interests and, hence, that they act to protect the shareholders from the managers' self-serving behavior (Fama & Jensen, 1983; Jensen & Meckling, 1976). Indeed, prior research finds that independent boards and independent audit committees reduce corporate misconduct (Neville, Byron, Post, & Ward, 2019; Upadhyay, Bhargava, & Faircloth, 2014). While EM cannot be strictly treated as fraudulent behavior *per se*, it nonetheless remains a practice that distorts the disclosure of accurate financial information and that entails costs to the firm. According to agency theory, such a practice can be mitigated by independent outside directors or audit committees. For example, Badolato et al. (2014) find that audit committees with financial expertise and high relative status, two characteristics theorized to enhance the committee's effectiveness, reduce EM.

The presence of independent outsiders on boards was, however, not formally required until quite recently in Japan. Indeed, it was only in 2009 that the Tokyo Stock Exchange changed its listing rules and required listed Japanese firms to have at least one independent director. Subsequently, from 2015 onwards, listed firms have been required to have at least two independent directors following the new Corporate Governance Code based on the "comply or explain" principle. Hence, most Japanese firms did not have any independent director on their boards until the regulatory change. Nonetheless, before the formal requirement, there were outside directors, who were typically affiliated with a firm's major corporate partners (Gerlach, 1992; Lincoln & Gerlach, 2004), and, hence, Japanese boards did not consist entirely of insiders or executive directors. Those outsiders typically represented affiliated companies with which the focal firm had established business links. Such affiliated outsiders are appointed to represent a commitment to maintaining stable business relationships and interfirm collaboration. Therefore, it is important to

note that these affiliated outside directors do not sit on boards to protect the interests of return-oriented shareholders such as foreign institutional investors.

Since those outside directors represent the interests of the affiliated companies, they do not usually push for higher financial performance (Colpan & Yoshikawa, 2012; David et al., 2010). Conversely, following the same argument presented earlier for domestic corporate shareholders, affiliated outside directors are likely to scrutinize more closely the potential preferential treatment of return-oriented shareholders and capital market participants by managers when the focal firm has adopted stock option pay. Although the adoption of stock options may trigger managers to engage in EM to meet capital market expectations and in turn enhance their own reputation, affiliated outside directors can mitigate EM, because they have direct access to inside corporate information. Indeed, due to their board status, they can exert direct monitoring on the financial figures of the firms in which they are board members. In addition, similar to corporate shareholders, such directors are well-positioned to assess the managerial capability of the affiliated firms, likely discouraging managers from resorting to EM to convey a better performance with the aim of enhancing their own reputation. Therefore, we hypothesize the following.

Hypothesis 3b (H3b). *Affiliated outside directors negatively moderate the effect of the adoption of stock option pay on EM.*

4. Methods

4.1. Data

We need different types of data to test our hypotheses: financial and accounting data, information on a firm's ownership structure (i.e., equity stakes of foreign investors and domestic corporate owners), and data on other governance mechanisms of the company (i.e., the use of stock

options and the board composition). Therefore, the data are collected from the following three main sources, namely, the *Nikkei Needs* database, *Kaisha Shikiho* (Japan Company Handbook), and *Yakuin Shikiho* (Board of Directors Handbook), and complemented with some manual and individual searches (e.g., to identify affiliated outside directors). These sources of information have also been used in prior research that focuses on the Japanese context (e.g., David et al., 2010; Geng et al., 2016).

The final sample is determined by the availability of the necessary data and by two other requirements. First, we need three consecutive years of information for the variable cash flow from operating activities to measure EM, as can be seen in Equation (1) below. Second, after defining all variables to be used in the analyses (see below) and deleting observations with missing values in any of those variables, we also require at least five consecutive years of data for each company to get an unbalanced panel without gaps. This is a necessary requirement to be able to use the panel data method described in the Estimation Method section. After applying these filters, our final sample comprises 856 Japanese firms (6,907 firm-year observations) listed in the first section of the Tokyo Stock Exchange between 2000 and 2010. However, it should be noted that, in the estimation process, we lose one year of data per firm because of the dynamic nature of our empirical specifications (i.e., the lag of EM is included in the right-hand side of the models) and because all regressors are lagged, as captured in Equations (2) and (3) below. Therefore, the models are estimated using 6,051 (i.e., 6,907 – 856) observations.

4.2. Dependent variable

The accounting literature proposes several approaches to measure EM (e.g., Dechow, Hutton, Kim, & Sloan, 2012). We follow the strategy proposed by McNichols (2002), which includes the

variables, namely, the determinants of nondiscretionary accruals, previously considered by Jones (1991) and Dechow and Dichev (2002), as explanatory variables in one single model. A noteworthy advantage of McNichols' model is that it has higher explanatory power (i.e., higher adjusted R^2) than the specifications proposed by Jones and Dechow and Dichev. Consequently, the *EM* measure in our study comprises the discretionary accruals as operationalized by the residuals from the following specification:

$$WCACC_{it} = \alpha + \beta_1 \Delta REV_{it} + \beta_2 PPE_{it} + \beta_3 CFO_{i,t-1} + \beta_4 CFO_{it} + \beta_5 CFO_{i,t+1} + \varepsilon_{it}, \quad (1)$$

where *WCACC* are working capital accruals, ΔREV is the change in revenues between $t-1$ and t, *PPE* is property, plant, and equipment, and *CFO* is cash flow from operating activities. All variables are scaled by total assets. The first two regressors (ΔREV and *PPE*) are the ones proposed by Jones (1991), whereas the cash flow variables (*CFO*) come from Dechow and Dichev's (2002) model. Previous recent studies also suggest a similar strategy to estimate EM (e.g., Capalbo, Frino, Lim, Mollica, & Palumbo, 2018; Ham, Lang, Seybert, & Wang, 2017).

4.3. Independent and moderating variables

The main variable of interest is *Stock options*, a dummy variable that equals one in those firm-year observations in which the company uses this type of compensation. Given that the adoption of stock options to remunerate executives is relatively recent in Japan and that the fraction of the compensation from this source in Japan is not as important as it is in other developed economies (Pan & Zhou, 2018), using a dummy is an appropriate approach to test our hypotheses. We include three moderators in our empirical models. *Foreign ownership* is the fraction of shares owned by foreign investors. Similarly, *Corporate ownership* is the fraction of shares in the hands of domestic non-financial corporate investors. Meanwhile, *Affiliated directors* is the proportion of

outside directors who are full-time employees/managers in other Japanese firms that are business partners (see Colpan & Yoshikawa, 2012).

4.4. Control variables

All our empirical models include a number of control variables that could affect EM. We capture a firm's financial profile through several factors. *Size* is measured as the natural logarithm of firm sales. *Profitability* is the ratio of gross profits scaled by total assets. The ratio of total debts to total assets is a proxy for a firm's *Leverage*. Two firm investment variables are included in the models: *Capital expenditures* and *R&D*; both are divided by total assets. *Sales growth* serves as a proxy for firm growth opportunities. *Exports* are the fraction of exports over total sales and capture the extent to which the company is exposed to competition in foreign markets. *Age* is the logarithm of one plus the number of years since the company's founding.

We additionally consider two control variables related to the CG context that characterizes Japan. We define a *Board reform* dummy that takes the value of one in those firm-year observations in which the firms adopted the board reform measure that separated executive officers from the board of directors, pioneered by Sony in 1996 (see Yoshikawa, Tsui-Auch, & McGuire, 2007). Finally, we also control for *Financial ownership*, defined as the proportion of shares owned by domestic financial investors. The reason to account for the financial owners' stakes in our regressions is to minimize the risk that the effects of interest are biased due to the influence of this type of shareholder, who plays an important role in the Japanese context (Ahmadjian & Robbins, 2005). Although some prior studies combine domestic corporate and financial investors as relational owners (David et al., 2010), the primary objective of domestic financial investors in Japan is not clear a priori (Colpan & Yoshikawa, 2012) given that they are typically both

shareholders and creditors of the firm at the same time. Hence, it is not easy to predict how they might affect EM. All our models include time and sector dummy variables. The means and standard deviations of all variables, and the bivariate correlations are presented in Table 1.

[Insert Table 1 about here]

4.5. Empirical specifications

To test H1, we develop an empirical model in which the main explanatory variable of interest is stock options. The resulting specification is the following:

$$EM_{it} = \alpha + \beta_0\, EM_{i,t-1} + \beta_1\, Stock\ options_{i,t-1} + Controls + \varepsilon_{it}, \quad (2)$$

in which *EM* and *Stock options* are defined as explained above. Consistent with H1, we expect β_1 to be positive. The model in Equation (2) is then extended as follows to test H2, H3a, and H3b:

$$EM_{it} = \alpha + \beta_0\, EM_{i,t-1} + \beta_1\, Stock\ options_{i,t-1} + \beta_2\, Stock\ options_{i,t-1} * MOD_{i,t-1} + \beta_3\, MOD_{i,t-1} + Controls + \varepsilon_{it}. \quad (3)$$

In Equation (3), *MOD* refers to the moderating variables (i.e., *Foreign ownership*, *Corporate ownership*, and/or *Affiliated directors*) that are expected to shape the effect of stock option pay on EM. The β_2 should be positive (negative) to find support for H2 (H3a and H3b).

4.6. Estimation method

To estimate the empirical models, we carefully select an estimation method, namely, the system generalized method of moments (GMM) (Blundell & Bond, 1998), which enables us to account for two important econometrical problems: unobserved heterogeneity and endogeneity. First, it is necessary to control for unobserved heterogeneity or individual effects because there are several time-constant firm characteristics that cannot be observed but that could potentially affect

EM. For instance, firm accounting practices are likely to be influenced by the managers' personal preferences for or against discretionary EM; these preferences can be assumed to be constant over time. The system GMM is a panel data method that removes the individual effect in the estimation process, thus allowing us to mitigate the risk of biased results due to unobserved heterogeneity.

Second, endogeneity concerns should also be addressed. While we argue that specific governance configurations determine the EM practices of the firm, it could also be contended that EM may lead firms to reconfigure their governance structures. Hence, causality could run in both directions. To account for this problem, the system GMM is an instrumental variable method that relies on a set of internal instruments contained within the panel itself (Abdallah, Goergen, & O'Sullivan, 2015; Hashai, Kafouros, & Buckley, 2018; Wintoki, Linck, & Netter, 2012). The GMM has already been used in prior EM research to address endogeneity (Kim et al., 2016; Liu et al., 2018). We use lags from t–2 to t–5 as instruments for all right-hand side variables in the GMM equations in differences and only one instrument in the level equations.

We conduct several specification tests to check that our empirical models are correctly specified. The Hansen overidentification statistic (Hansen) enables us to test the validity of the instruments chosen. The second-order serial correlation test (m_2) developed by Arellano and Bond (1991) is used to make sure that there is no such problem in our regression analyses. We also conduct a Wald test to check the joint significance of the explanatory variables (z_1).

5. Results

5.1. Descriptive analyses

We conduct a battery of mean difference tests to compare firm groups formed based on whether they use stock options to remunerate executives. The findings are reported in Table 2. The

results highlight that the average EM is –0.002 (column 1) in companies with stock options and –0.007 (column 2) in those that do not resort to this type of compensation. Therefore, consistent with expectations, we confirm a higher EM level in firms that adopt stock options (–0.002 > –0.007). The difference between the means of both groups is statistically significant and amounts to 0.005 (column 1–2); the SE = 0.001, and the *p*-value = 0.000.

For ease of interpretation of this mean difference test, we also take into account that EM can take positive and negative values since it can be used for upward or downward earnings manipulation. Regardless of the sign, note that changes in the variable (increases or decreases) have a linear interpretation because a higher value implies either less downward EM (when going from a more negative EM value to a negative value closer to zero) or more upward EM (when going from a positive EM value closer to zero to a larger positive value). This is an important clarification because it implies that the dependent variable in our empirical models is not bounded, thus enabling us to avoid methodological complications. More importantly, given that our main interest is in analyzing whether stock options lead to accounting practices that convey a better image of the firm (either less downward or more upward EM) and whether such a strategy depends on shareholder- and stakeholder-oriented governance mechanisms, using the signed EM variable in our regressions is the right approach to mitigate the risk of biased results.

[Insert Table 2 about here]

Having clarified this point, we can repeat the univariate test by distinguishing between two subsamples defined by the sign of EM (positive or negative) in order to better understand whether the higher EM in firms that adopt stock options is due to less downward EM or more upward EM. Interestingly, we observe that the statistically significant differences previously reported are attributable to the subsample with upward earnings manipulation (positive EM). We observe that

among the subgroup of firms with positive EM, those that use stock options (EM = 0.027, column 1) exhibit higher average EM than those firms that do not use this type of compensation (EM = 0.021, column 2). The resulting difference is 0.005 (column 1–2); SE = 0.001, and the *p*-value = 0.000. By contrast, the difference in EM is not statistically significant in the subsample of negative EM. Overall, the results from the univariate tests support the idea that a shareholder-oriented governance mechanism, such as stock option pay, induces accounting practices aimed at inflating reported earnings.

5.2. Regression results

To test H1, we estimate an empirical model in which the explanatory variable of interest is stock options. The empirical evidence obtained supports our hypothesis and highlights that the adoption of stock options increases discretionary accruals (see Table 3, column 1). The effect of stock options use on EM is β = 0.006 (SE = 0.001; *p*-value = 0.000), and the 95% confidence interval is [0.004, 0.007]. Regarding the economic relevance of this result, the increase in EM associated with the use of stock options (as captured by the estimated coefficient) amounts to 26.09% of the mean EM level in the subsample of observations with positive EM values (= [0.006/0.023] * 100). Therefore, we confirm the practical relevance of our finding.

[Insert Table 3 about here]

Having shown that stock options increase EM, we next examine whether shareholder- and stakeholder-oriented governance structures either amplify or mitigate the positive impact of stock options on EM. The first moderating factor we consider is foreign ownership. In line with H2, we find that the positive relationship between stock options and EM depends on the level of foreign ownership. Note that the interaction term between this ownership type and stock options presented

in Table 3 (column 2) exhibits a positive estimated coefficient of $\beta = 0.026$ (SE = 0.005; p-value = 0.000) and a 95% confidence interval of [0.016, 0.036]. Figure 1 illustrates that for a low level of foreign ownership, EM remains relatively stable (and even experiences a slight reduction), as firms without stock options decide to adopt this type of pay. By contrast, the influence of stock options on EM is clearly positive in companies in which foreign investors own a large stake. Specifically, the degree of EM in companies that use stock options and with a high (low) foreign ownership level is 0.031 (0.022). These results indicate that in firms that have adopted stock option pay, EM is 40.91% higher (= [(0.031 – 0.022)/0.022] * 100) in firms with a large foreign investor than in those with low foreign ownership. Such a notable difference is a clear sign of the economic importance of our finding.

[Insert Figure 1 about here]

To test H3a, we consider the interaction between stock option pay and corporate ownership. The estimated coefficients presented in Table 3 (column 3) are in line with expectations. The positive impact of stock options on EM is mitigated when this type of compensation is used by companies in which corporate owners have a large stake. Note that the estimated coefficient on the interaction term is $\beta = –0.026$ (SE = 0.004; p-value = 0.000), with a 95% confidence interval [–0.033, –0.019]. To check the economic relevance of this result, we plot the effect of stock options on EM for high versus low corporate ownership levels (see Figure 2). Interestingly, we observe that in firms with a large corporate shareholder, the use of stock options does not influence EM. To further highlight the role of corporate ownership in mitigating EM, it is worthwhile to note that the use of stock options combined with high corporate ownership is associated with a degree of EM of just 0.025, whereas the EM level amounts to 0.031 when corporate ownership is low.

Therefore, among companies that use stock options, EM is 19.35% lower (= [(0.025 – 0.031)/0.031] * 100) when corporate ownership is high.

[Insert Figure 2 about here]

Finally, we are interested in analyzing whether affiliated outside directors mitigate the positive impact of stock options on EM (H3b). To this aim, we include in the right-hand side of the model the interaction between stock options and affiliated directors. The empirical evidence in Table 3 (column 4) supports our expectations. We find that the positive effect of stock options on EM is counteracted by the corresponding negative impact occurring when the fraction of affiliated outside board members is high. Note that the estimated coefficient on the interaction term between the two variables of interest is β = –0.059 (SE = 0.003; p-value = 0.000), with an associated 95% confidence interval [–0.065, –0.053]. Figure 3 highlights that the impact of stock options on EM depends on the type of directors that constitute the board. The initial positive relationship between stock options and EM turns into a flat slope when the board comprises more affiliated directors. Focusing on firms that use stock options, we observe that having more affiliated outside directors in the company leads to a degree of EM equivalent to 0.026, whereas EM increases to 0.030 when the number of affiliated outside directors is low. Our results support a reduction in the degree of EM of 13.33% (= [(0.026 – 0.030)/0.030] * 100) in firms with a high proportion of affiliated outside directors, validating the practical relevance of our finding. As Table 3 (column 5) shows, the regression results remain unchanged when we include in the right-hand side of the model the interactions of stock options with the three investigated governance mechanisms (foreign ownership, corporate ownership, and affiliated directors) simultaneously.

[Insert Figure 3 about here]

5.3. Robustness tests

Regarding the baseline positive effect of stock options on EM, one could attribute such effect simply to an increase in the executives' compensation rather than to a shareholder orientation (in the sense that this type of compensation contributes to align managers and investors' interests). To rule out this possibility, we collected information on the executive directors' total compensation and bonuses and examined how they affect EM. In line with H1 and with the view that performance-based compensation and earnings manipulation are positively associated (Abernethy, Bouwens, & Kroos, 2017), we expect that higher EM is driven by the pay type that induces short-termism and is more capital market-oriented (bonuses) and not by total compensation.

The new regression results are reported in Table 4. We should clarify that the analyses in which we include the bonus variable (columns 3 and 4) are carried out with a smaller sample due to limited data availability. First, we find that total compensation, as captured by the logarithm of the average annual compensation of all executive directors in the firm, has no effect on EM (see columns 1 and 2). However, as column 2 shows, the stock options dummy retains the positive effect previously documented. Second, we observe that an increase in the executives' bonuses, defined as the logarithm of the average annual bonus received by executives, does have a positive impact on EM (columns 3 and 4). At the same time, we find that the use of stock options continues to influence EM positively, as reported in column 4. We are therefore reassured that, in line with expectations, it is indeed short-term and shareholder-oriented compensation strategies (such as bonuses and stock options) that lead to higher EM.

[Insert Table 4 about here]

As indicated in the Methods section, there are several approaches to measure discretionary accruals. We rely on the strategy proposed by McNichols (2002) in our main regression analyses.

To check the consistency of the initial findings, we re-estimate the EM specifications by capturing discretionary accruals as proposed by Dechow and Dichev (2002). Therefore, our new EM measure comprises the residuals from a working capital accruals (*WCACC*) model in which the explanatory variables are the cash flows from operating activities (*CFO*) in *t*–1, *t*, and *t*+1. We report the new regression results in Table 5. Column 1 confirms the positive impact of stock options on EM, thus supporting H1. In line with H2, this positive effect is more pronounced as foreign ownership increases (column 2). In contrast, columns 3 and 4 show that an increase in domestic corporate ownership and in the proportion of affiliated outside directors mitigates the positive influence of stock option pay on EM, consistent with H3a and H3b. These findings are confirmed when we include all interaction effects in the same model (column 5).

[Insert Table 5 about here]

6. Discussion

We have investigated the effect of stock option pay on EM and have further examined how shareholder-oriented (foreign ownership) and stakeholder-oriented (corporate ownership and affiliated outside directors) governance amplify or mitigate this effect in a stakeholder-oriented context. Our findings show that Japanese firms that have adopted stock option pay are more likely to engage in EM. The empirical evidence obtained on the effect of stock options is consistent with prior research conducted in the U.S. (Burns & Kedia, 2006; Harris & Bromiley, 2007), suggesting that managers in a stakeholder-focused environment are also susceptible to the pressure and temptation to engage in a practice that may influence the perceptions of capital market participants. Our results on the effects of foreign ownership show that foreign institutional investors are less effective in curbing the practice of EM because they lack the proximity advantage that

characterizes their domestic counterparts (Kim et al., 2016; Liu et al., 2018). However, we advance previous literature by showing that in the Japanese context, relying on foreign owners leads to even higher EM when coupled with stock option pay. The reason for this behavior is that managers are exposed to greater pressure to prioritize financial performance and motivated to develop a positive managerial reputation in an environment that is typically more protective towards stakeholders.

Our research is also distinguished from other studies as we have analyzed whether stakeholder-oriented CG mitigates the influence of stock option pay on EM. Our results indicate that corporate ownership and affiliated outside directors do exert negative moderating effects. These results suggest that, while shareholder-oriented CG also displays a downside in terms of higher EM in a stakeholder-focused institutional context, stakeholder-oriented mechanisms can help to address this drawback. Our findings hence imply that, by mitigating distorted information disclosure triggered by a shareholder-oriented practice (stock option pay), stakeholder-oriented CG structures can substitute for the monitoring mechanisms (such as independent boards and audit committees) that are prevalent in contexts where shareholders' interests are prioritized.

This study makes several contributions to the comparative CG literature. We first show that, in a stakeholder institutional context where managers are often expected to balance the interests of various stakeholders (Aguilera et al., 2008; Hall & Soskice, 2001), shareholder-oriented CG plays a role similar to that reported in shareholder-focused environments. In particular, we observe that the presence of equity-linked executive compensation has equally detrimental effects in Japan as it has in the U.S. in terms of the accuracy of accounting figures. These findings resonate with the results presented by Geng et al. (2016), who document that Japanese managers leverage the foreign institutional or shareholder logic to implement stock option pay, which foreign investors advocate

but that also benefits the managers themselves. Even in a stakeholder-oriented institutional context, managers do not always act to balance the interests of key stakeholders, as they also pursue their own interests (e.g., private financial benefits as well as an enhanced managerial reputation).

Second, by using the institutional logics and CG complementarity/substitution perspectives, we show that CG mechanisms that follow the stakeholder logic can substitute another mechanism in other contexts that follow the shareholder logic in mitigating a practice which is detrimental to both stakeholders and shareholders. Traditional stakeholder-based CG structures can thus be beneficial even to investors who seek financial returns because, thanks to such structures, these investors receive less managed or distorted financial information. Prior research highlights the divergent objectives attributed to shareholder- and stakeholder-oriented CG due to the relative importance attached to different stakeholders. For example, David et al. (2010) show that return-oriented investors prefer diversification that leads to higher financial profitability in their invested firms, while stakeholder-oriented strategic investors seek firm growth when their invested firms diversify. Instead of looking at different performance outcomes (profit versus growth), our study focuses on the role of stakeholder-oriented governance in mitigating a downside of shareholder-oriented CG. Desender et al. (2016) claim that stakeholder-oriented CG does not protect the interests of return-oriented investors, as the objective of the stakeholder-oriented CG are not higher financial returns. Conversely, our empirical evidence supports the idea that stakeholder-oriented CG plays an important role in mitigating some risks to which return-seeking shareholders are exposed, suggesting that the interest of stakeholders and shareholders is aligned under some circumstances.

The empirical evidence obtained also has a practical implication. While shareholder-oriented CG practices such as equity-linked executive pay are spreading globally and institutional investors

are holding their equity stakes in many firms throughout the world, we still do not know enough about these practices' negative effects in different institutional contexts. This study shows that, while stock options pay may play a monitoring role such that managers pay greater attention to corporate financial performance, they also incentivize managers to act opportunistically by managing accounting numbers. Without effective mechanisms such as independent boards or alternative structures (e.g., related outside directors) that can mitigate such managerial behavior, the adoption of practices from different governance regimes or high pressure from institutional investors may lead to undesirable outcomes. Thus, it is critical to examine the CG model in which the firm is embedded and how it can complement or provide substitute mechanisms related to the new practices coming from a different model.

This study is not without some limitations that warrant future research. On the one hand, we have explored stock option pay as the source of the main effect and foreign institutional ownership as a moderator in our analysis of the effect of shareholder-oriented CG. While these mechanisms have been studied in previous works (David et al., 2010; Desender et al., 2016; Geng et al., 2016), other shareholder-oriented mechanisms such as analyst following have not received much attention. Future research can thus explore other practices.

On the other hand, our study focuses on affiliated outside directors as one of the stakeholder-oriented mechanisms but does not consider independent directors because, during the time period covered, there were very few independent directors on Japanese boards. Nevertheless, the number of independent directors has been gradually increasing over time since the implementation of the new Corporate Governance Code in 2015. It could be interesting to investigate the effects of independent outsiders on EM or on other firm outcomes in which the drawbacks of shareholder-oriented governance is reflected, in an effort to disentangle whether independent and affiliated

outside directors have different effects. Such studies may provide new insights on alternative CG combinations.

In relation to the geographical setting, given that our empirical analyses are based on Japanese data, we need to be cautious in generalizing the results to other countries, including other stakeholder-oriented contexts. Key firm stakeholders vary across regions and countries, and the goals they pursue are also likely to be different. Therefore, the effects derived from their involvement in focal firms, whether they are involved as shareholders, board members, or in another role, are expected to differ. For instance, many listed firms around the world are family owned and controlled. Family owners may curb EM because of their socioemotional wealth objectives, such as the protection of family reputation (Gomez-Mejia, Haynes, Nunez-Nickel, Jacobson, & Moyano-Fuentes, 2007). However, at the same time, they may be inclined to manipulate the disclosed financial information in an attempt to prevent interference from outsiders, especially when the firm's performance is low. The ultimate motive behind this behavior might not be the achievement of better financial performance but rather the protection of the business against external forces to keep family control of the firm. Hence, when analyzing other contexts, it is necessary to identify the main stakeholders and carefully understand their interests and motivations.

7. Conclusion

This study presents new findings on how a "hybrid" CG model functions in a stakeholder-oriented institutional context. While shareholder-oriented practices such as equity-based compensation have been adopted in many institutional contexts, we still know little about how these practices are functioning and how they affect managerial behavior in different contexts. This

study investigates the relationship between stock option pay and EM and the moderating effects of shareholder- and stakeholder-oriented CG in this relationship. As the coexistence of imported (shareholder-oriented) and local (stakeholder-oriented) practices is not unique to the analyzed institutional context, we trust that our work provides new insights and inspires new research on the interactions among distinct CG mechanisms in different contexts.

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Figures

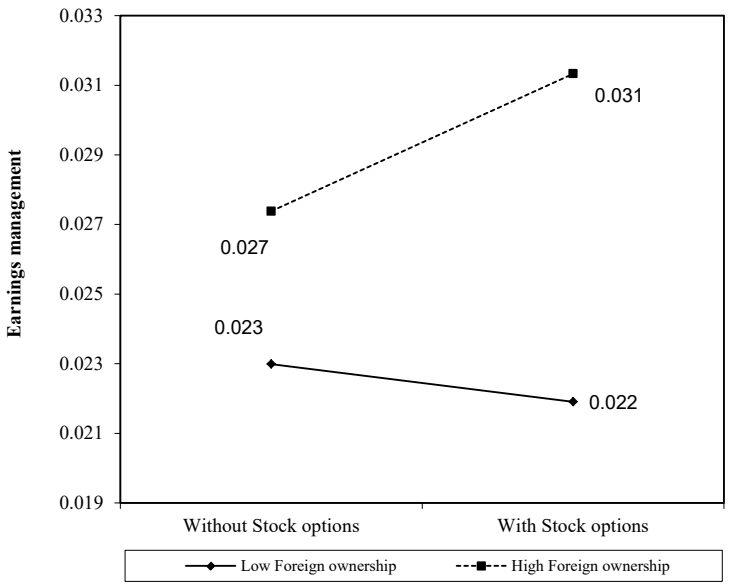

Figure 1. Moderating role of foreign ownership in the relationship between stock options and EM

Note: The figure plots the effect of stock option pay on EM in the low versus high foreign ownership scenarios (at 1 SD around average foreign ownership), taking into account the bounded nature of the moderator (between 0 and 1) and assuming an EM baseline level equal to average EM in the subsample with positive EM values.

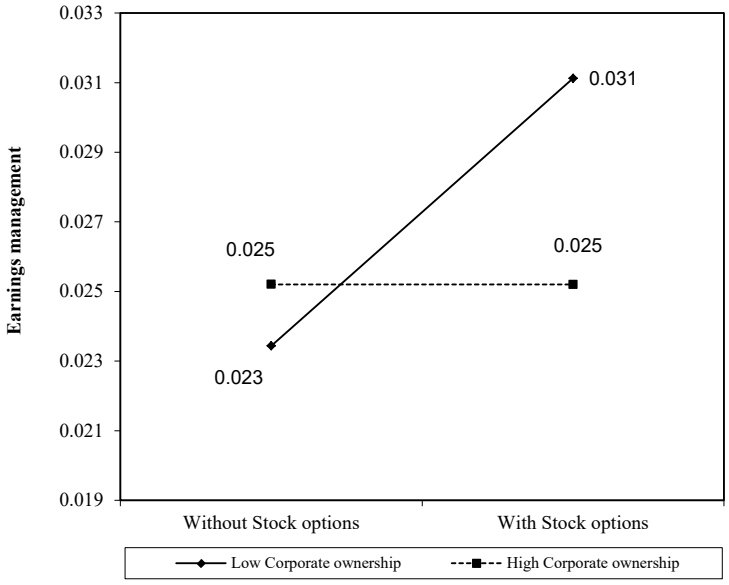

Figure 2. Moderating role of domestic corporate ownership in the relationship between stock options and EM

Note: The figure plots the effect of stock option pay on EM in the low versus high domestic corporate ownership scenarios (at 1 SD around average domestic corporate ownership), taking into account the bounded nature of the moderator (between 0 and 1) and assuming an EM baseline level equal to average EM in the subsample with positive EM values.

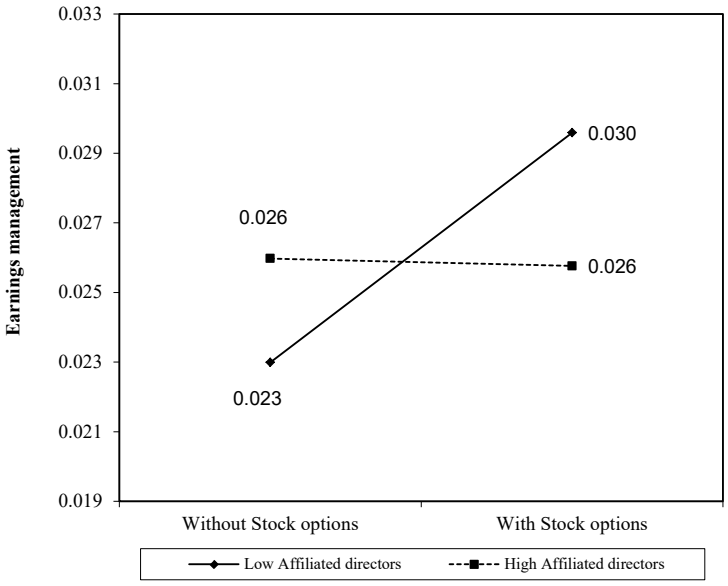

Figure 3. Moderating role of affiliated directors in the relationship between stock options and EM

Note: The figure plots the effect of stock option pay on EM in the low versus high affiliated directors scenarios (at 1 SD around average affiliated directors), taking into account the bounded nature of the moderator (between 0 and 1) and assuming an EM baseline level equal to average EM in the subsample with positive EM values.

Tables

Table 1. Means, standard deviations, and correlation matrix

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. EM	–0.006	0.042	1.00														
2. Stock options	0.278	0.448	0.06	1.00													
3. Foreign ownership	0.096	0.097	0.13	0.14	1.00												
4. Corporate ownership	0.223	0.148	0.00	–0.11	–0.30	1.00											
5. Affiliated directors	0.039	0.076	0.03	0.08	0.06	0.16	1.00										
6. Size	11.518	1.240	0.04	0.01	0.47	–0.12	0.01	1.00									
7. Profitability	0.238	0.153	0.05	0.21	0.02	–0.06	0.02	–0.05	1.00								
8. Leverage	0.565	0.184	–0.11	–0.20	–0.20	0.07	0.01	0.28	–0.24	1.00							
9. Capital expenditures	0.039	0.036	0.05	0.08	0.13	–0.01	0.05	0.09	0.12	–0.04	1.00						
10. R&D	0.015	0.020	0.05	0.09	0.18	–0.07	0.03	–0.02	0.15	–0.26	0.10	1.00					
11. Sales growth	0.031	0.124	0.05	0.09	0.16	–0.04	–0.02	0.09	0.12	–0.06	0.16	0.04	1.00				
12. Exports	0.161	0.211	0.05	0.06	0.32	–0.12	0.06	0.14	–0.07	–0.11	0.15	0.39	0.12	1.00			
13. Age	4.027	0.436	–0.03	–0.21	0.08	–0.03	–0.04	0.15	–0.27	0.08	–0.06	0.12	–0.10	0.08	1.00		
14. Board reform	0.192	0.394	0.02	0.08	0.15	–0.02	0.11	0.15	–0.01	0.04	–0.03	0.03	–0.01	0.03	0.03	1.00	
15. Financial ownership	0.300	0.132	–0.00	–0.08	0.28	–0.39	–0.10	0.38	–0.18	0.05	0.07	0.14	0.02	0.19	0.41	0.02	1.00

Table 2. Mean difference tests

	Stock options				
	Yes	No	Mean difference	SE	*p*-value
	(1)	(2)	(1)–(2)		
EM	–0.002	–0.007	0.005	0.001	0.000
Positive EM	0.027	0.021	0.005	0.001	0.000
Negative EM	–0.029	–0.029	–0.000	0.001	0.978
Foreign ownership	0.118	0.087	0.030	0.003	0.000
Corporate ownership	0.197	0.233	–0.036	0.004	0.000
Affiliated directors	0.048	0.035	0.013	0.002	0.000
Size	11.538	11.509	0.029	0.033	0.383
Profitability	0.289	0.218	0.071	0.004	0.000
Leverage	0.505	0.588	–0.083	0.005	0.000
Capital expenditures	0.044	0.038	0.006	0.001	0.000
R&D	0.018	0.014	0.004	0.001	0.000
Sales growth	0.050	0.024	0.026	0.003	0.000
Exports	0.183	0.153	0.030	0.006	0.000
Age	3.878	4.084	–0.206	0.011	0.000
Financial ownership	0.283	0.307	–0.024	0.004	0.000

Table 3. Effect of stock option pay on EM: Moderating role of foreign ownership, corporate ownership, and affiliated outside directors

	(1)	(2)	(3)	(4)	(5)
Hypothesis	H1	H2	H3a	H3b	All
Dep. var.	EM	EM	EM	EM	EM
Constant	–0.026	–0.025	–0.024	–0.031	–0.029
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Controls:					
$EM_{i,t-1}$	–0.013	–0.013	–0.009	–0.011	–0.009
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
$Size_{i,t-1}$	0.001	0.001	0.000	0.001	0.001
	(0.155)	(0.192)	(0.343)	(0.011)	(0.001)
$Profitability_{i,t-1}$	0.024	0.026	0.024	0.023	0.025
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
$Leverage_{i,t-1}$	–0.010	–0.006	–0.008	–0.008	–0.006
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Capital $expenditures_{i,t-1}$	0.106	0.113	0.113	0.104	0.116
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
$R\&D_{i,t-1}$	0.047	0.059	0.041	0.018	0.010
	(0.013)	(0.000)	(0.004)	(0.293)	(0.245)
Sales $growth_{i,t-1}$	0.015	0.017	0.015	0.015	0.015
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
$Exports_{i,t-1}$	0.007	0.007	0.006	0.010	0.010
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
$Age_{i,t-1}$	0.000	–0.000	0.001	0.001	0.000
	(0.498)	(0.256)	(0.076)	(0.006)	(0.013)
Board $reform_{i,t-1}$	0.000	–0.001	–0.000	0.000	–0.000
	(0.947)	(0.188)	(0.682)	(0.500)	(0.818)
Financial $ownership_{i,t-1}$	–0.005	–0.003	–0.005	–0.005	–0.005
	(0.119)	(0.202)	(0.080)	(0.060)	(0.004)
Foreign $ownership_{i,t-1}$	0.032	0.023	0.031	0.031	0.018
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Corporate $ownership_{i,t-1}$	0.005	0.005	0.006	0.003	0.000
	(0.031)	(0.014)	(0.005)	(0.130)	(0.775)
Affiliated $directors_{i,t-1}$	–0.000	–0.000	0.001	0.026	0.025
	(0.869)	(0.938)	(0.584)	(0.000)	(0.000)
Independent variable and interaction effects:					
Stock $options_{i,t-1}$	0.006	–0.001	0.010	0.007	0.002
	(0.000)	(0.213)	(0.000)	(0.000)	(0.001)
Stock $options_{i,t-1}$ *		0.026			0.025
Foreign $ownership_{i,t-1}$		(0.000)			(0.000)
Stock $options_{i,t-1}$ *			–0.026		–0.009
Corporate $ownership_{i,t-1}$			(0.000)		(0.000)
Stock $options_{i,t-1}$ *				–0.059	–0.054
Affiliated $directors_{i,t-1}$				(0.000)	(0.000)
Specification tests:					
z_1	130.02 (15)	194.29 (16)	170.25 (16)	169.63 (16)	371.92 (18)
m_2	–0.27	–0.29	–0.18	–0.29	–0.26
Hansen	583.23 (564)	619.01 (601)	618.28 (601)	608.45 (601)	693.85 (675)
Firms	856	856	856	856	856
Observations	6,051	6,051	6,051	6,051	6,051

Note: System GMM regression results from estimating Equations (2) and (3). All variables are defined in the Methods section. The rest of the information needed to read this table is: (i) *p*-values are in parentheses; (ii) standard errors are robust to heteroskedasticity; (iii) z_1 is a Wald test of the joint significance of the reported coefficients, asymptotically distributed as χ^2 under the null of no relationship, and the degrees of freedom are in parentheses; (iv) m_2 is a serial correlation test of second order using residuals in first differences, asymptotically distributed as N(0,1) under the null of no serial correlation; (v) Hansen is a test of the over-identifying restrictions, asymptotically distributed as χ^2 under the null of no correlation between the instruments and the error term, degrees of freedom in parentheses; (vi) all models include time and sector dummies.

Table 4. Effect of executive compensation on EM

	(1)	(2)	(3)	(4)
Hypothesis	H1	H1	H1	H1
Dep. var.	EM	EM	EM	EM
Constant	–0.031	–0.025	0.050	0.039
	(0.000)	(0.000)	(0.000)	(0.000)
Controls:				
$EM_{i,t-1}$	–0.008	–0.012	–0.033	–0.036
	(0.006)	(0.000)	(0.000)	(0.000)
$Size_{i,t-1}$	0.001	0.001	–0.002	–0.002
	(0.011)	(0.191)	(0.000)	(0.000)
$Profitability_{i,t-1}$	0.030	0.025	0.006	0.010
	(0.000)	(0.000)	(0.098)	(0.007)
$Leverage_{i,t-1}$	–0.014	–0.010	–0.039	–0.035
	(0.000)	(0.000)	(0.000)	(0.000)
Capital $expenditures_{i,t-1}$	0.121	0.113	0.116	0.137
	(0.000)	(0.000)	(0.000)	(0.000)
$R\&D_{i,t-1}$	0.077	0.062	0.443	0.408
	(0.000)	(0.000)	(0.000)	(0.000)
Sales $growth_{i,t-1}$	0.016	0.016	0.020	0.016
	(0.000)	(0.000)	(0.000)	(0.000)
$Exports_{i,t-1}$	0.009	0.007	–0.006	–0.004
	(0.000)	(0.000)	(0.044)	(0.218)
$Age_{i,t-1}$	–0.000	0.000	–0.009	–0.008
	(0.434)	(0.325)	(0.000)	(0.000)
Board $reform_{i,t-1}$	–0.001	–0.000	0.001	0.001
	(0.157)	(0.439)	(0.062)	(0.028)
Financial $ownership_{i,t-1}$	–0.006	–0.005	0.008	0.012
	(0.039)	(0.064)	(0.019)	(0.002)
Foreign $ownership_{i,t-1}$	0.026	0.031	0.033	0.025
	(0.000)	(0.000)	(0.000)	(0.000)
Corporate $ownership_{i,t-1}$	0.003	0.005	–0.004	–0.005
	(0.248)	(0.012)	(0.227)	(0.348)
Affiliated $directors_{i,t-1}$	0.001	–0.001	0.043	0.048
	(0.671)	(0.786)	(0.000)	(0.000)
Independent variables:				
Stock $options_{i,t-1}$		0.005		0.003
		(0.000)		(0.001)
Total $compensation_{i,t-1}$	–0.000	–0.000		
	(0.842)	(0.965)		
Executive $bonus_{i,t-1}$			0.007	0.006
			(0.000)	(0.000)
Specification tests:				
z_1	126.15 (15)	167.85 (16)	144.61 (15)	175.85 (16)
m_2	–0.17	–0.25	–0.63	–0.72
Hansen	569.20 (564)	618.86 (601)	341.93 (559)	337.66 (591)
Firms	856	856	391	391
Observations	6,051	6,051	2,236	2,236

Note: System GMM regression results from estimating Equation (2). All variables are defined in the Methods and Results sections. The rest of the information needed to read this table is: (i) *p*-values are in parentheses; (ii) standard errors are robust to heteroskedasticity; (iii) z_1 is a Wald test of the joint significance of the reported coefficients, asymptotically distributed as χ^2 under the null of no relationship, and the degrees of freedom are in parentheses; (iv) m_2 is a serial correlation test of second order using residuals in first differences, asymptotically distributed as N(0,1) under the null of no serial correlation; (v) Hansen is a test of the over-identifying restrictions, asymptotically distributed as χ^2 under the null of no correlation between the instruments and the error term, degrees of freedom in parentheses; (vi) all models include time and sector dummies.

Table 5. Effect of stock option pay on EM and moderating role of shareholder- and stakeholder-oriented governance: Alternative EM definition

	(1)	(2)	(3)	(4)	(5)
Hypothesis	H1	H2	H3a	H3b	All
Dep. var.	EM	EM	EM	EM	EM
Constant	–0.006	–0.007	–0.005	–0.008	–0.011
	(0.193)	(0.064)	(0.186)	(0.062)	(0.000)
Controls:					
$EM_{i,t-1}$	–0.018	–0.017	–0.014	–0.017	–0.014
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
$Size_{i,t-1}$	–0.000	–0.000	–0.000	–0.000	0.000
	(0.632)	(0.391)	(0.172)	(0.770)	(0.879)
$Profitability_{i,t-1}$	0.010	0.012	0.009	0.008	0.012
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
$Leverage_{i,t-1}$	–0.017	–0.011	–0.016	–0.015	–0.012
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Capital $expenditures_{i,t-1}$	0.108	0.114	0.123	0.104	0.122
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
$R\&D_{i,t-1}$	0.006	0.031	0.009	–0.019	–0.005
	(0.725)	(0.021)	(0.574)	(0.210)	(0.533)
Sales $growth_{i,t-1}$	0.025	0.026	0.025	0.025	0.024
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
$Exports_{i,t-1}$	0.017	0.016	0.014	0.019	0.016
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
$Age_{i,t-1}$	–0.002	–0.003	–0.002	–0.002	–0.002
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Board $reform_{i,t-1}$	0.000	0.000	0.000	0.000	0.000
	(0.518)	(0.993)	(0.734)	(0.362)	(0.954)
Financial $ownership_{i,t-1}$	0.001	0.003	–0.000	–0.002	–0.001
	(0.745)	(0.236)	(0.969)	(0.471)	(0.527)
Foreign $ownership_{i,t-1}$	0.041	0.033	0.040	0.045	0.034
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Corporate $ownership_{i,t-1}$	0.005	0.004	0.005	0.005	0.001
	(0.043)	(0.055)	(0.013)	(0.027)	(0.422)
Affiliated $directors_{i,t-1}$	0.002	0.002	0.004	0.023	0.022
	(0.535)	(0.286)	(0.053)	(0.000)	(0.000)
Independent variable and interaction effects:					
Stock $options_{i,t-1}$	0.007	0.001	0.010	0.007	0.004
	(0.000)	(0.058)	(0.000)	(0.000)	(0.000)
Stock $options_{i,t-1}$ *		0.017			0.016
Foreign $ownership_{i,t-1}$		(0.000)			(0.000)
Stock $options_{i,t-1}$ *			–0.022		–0.009
Corporate $ownership_{i,t-1}$			(0.000)		(0.000)
Stock $options_{i,t-1}$ *				–0.043	–0.036
Affiliated $directors_{i,t-1}$				(0.000)	(0.000)
Specification tests:					
z_1	179.42 (15)	243.80 (16)	245.27 (16)	215.00 (16)	489.78 (18)
m_2	–0.60	–0.57	–0.53	–0.63	–0.59
Hansen	578.61 (564)	617.09 (601)	616.59 (601)	607.23 (601)	681.80 (675)
Firms	856	856	856	856	856
Observations	6,051	6,051	6,051	6,051	6,051

Note: System GMM regression results from estimating Equations (2) and (3). All variables are defined in the Methods and Results sections. The rest of the information needed to read this table is: (i) *p*-values are in parentheses; (ii) standard errors are robust to heteroskedasticity; (iii) z_1 is a Wald test of the joint significance of the reported coefficients, asymptotically distributed as χ^2 under the null of no relationship, and the degrees of freedom are in parentheses; (iv) m_2 is a serial correlation test of second order using residuals in first differences, asymptotically distributed as N(0,1) under the null of no serial correlation; (v) Hansen is a test of the over-identifying restrictions, asymptotically distributed as χ^2 under the null of no correlation between the instruments and the error term, degrees of freedom in parentheses; (vi) all models include time and sector dummies.