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Conflict or alignment? The role of return-oriented foreign shareholders and domestic relational shareholders in mitigating earnings management

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Conflict or Alignment? The Role of Return-oriented Foreign Shareholders and Domestic Relational Shareholders in Mitigating Earnings Management

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Abstract:	<p>This study investigates the effects of foreign return-oriented shareholders and domestic relational shareholders of Japanese companies on the earnings management behavior of their invested firms when stock option pay is adopted. We theorize that foreign shareholders seek short-term returns and do not engage in close monitoring due to an information disadvantage while domestic shareholders prevent managerial behavior that distorts information disclosure. Our findings show that managers of firms that use stock option pay engage in earnings management to increase their private financial benefits and meet capital markets' expectations, which allows them to enhance their own reputation. However, this managerial behavior is contingent on the firm's ownership structure. Our results show that while foreign shareholders enhance the positive impact of stock options on earning management, domestic shareholders and affiliated directors mitigate this positive effect. Our empirical analyses support the argument that ownership heterogeneity is a key determinant of managerial propensity to engage in earnings management when Japanese firms adopt stock option pay.</p>

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Strategic Organization

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3 **Conflict or Alignment? The Role of Return-oriented Foreign Shareholders and Domestic**
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5 **Relational Shareholders in Mitigating Earnings Management**
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10 **Abstract**
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12 This study investigates the effects of foreign return-oriented shareholders and domestic relational
13 shareholders of Japanese companies on the earnings management behavior of their invested
14 firms when stock option pay is adopted. We theorize that foreign shareholders seek short-term
15 returns and do not engage in close monitoring due to an information disadvantage while
16 domestic shareholders prevent managerial behavior that distorts information disclosure. Our
17 findings show that managers of firms that use stock option pay engage in earnings management
18 to increase their private financial benefits and meet capital markets' expectations, which allows
19 them to enhance their own reputation. However, this managerial behavior is contingent on the
20 firm's ownership structure. Our results show that while foreign shareholders enhance the positive
21 impact of stock options on earning management, domestic shareholders and affiliated directors
22 mitigate this positive effect. Our empirical analyses support the argument that ownership
23 heterogeneity is a key determinant of managerial propensity to engage in earnings management
24 when Japanese firms adopt stock option pay.
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44 **Keywords:** agency theory; earnings management; foreign ownership; relational ownership;
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46 stock option pay.
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Introduction

Prior corporate governance (CG) studies revealed that shareholders are a diverse set of actors with varying preferences and compared the effects of different types of shareholders on firm performance and strategic decisions (Connelly et al. 2019; David et al., 1998; Tihanyi et al., 2003). In this stream of the literature (see Boyd and Solarino, 2016, for a review), perhaps one of the most pronounced differences among shareholders is between shareholders that seek financial goals and those that pursue nonfinancial or strategic objectives. Previous research investigating such differences in shareholder objectives reveals that each shareholder type imposes different expectations on managers, thus leading to divergent outcomes in terms of firm performance, strategic behavior, and managerial decisions, such as profits versus growth and corporate restructuring (Ahmadjian and Robbins, 2005; David et al., 2010).

This study extends those works by comparing the effects of the different types of shareholders in terms of their objectives by focusing on the implications of an Anglo-American CG practice, namely, the adoption of stock option pay, and its impact on earnings management (hereafter, EM). By doing so, we aim to show that the interests of different types of shareholders can be aligned under some circumstances, but one particular type can play a better monitoring role. The comparative CG literature has made a stylized distinction between shareholder- and stakeholder-oriented models (Aguilera and Jackson, 2003; Hall and Soskice, 2001). On the one hand, Anglo-American institutional contexts are usually categorized as a shareholder-oriented model, where managers are expected to seek greater firm value and higher investment returns (Desender et al., 2016; Geng et al., 2016). On the other hand, countries such as Germany and Japan are considered to follow a stakeholder model, where managers balance the interests of key stakeholders in their decision-making (Aguilera et al., 2008; Ahmadjian and Robbins, 2005).

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3 Despite the persistent variety in CG practices across countries (Whitley, 1999), the focus on
4 shareholder value has spread globally (Guillen, 2000; Yoshikawa and Rasheed, 2009). As
5 shareholder-oriented CG practices increasingly diffuse in countries with a stakeholder-oriented
6 tradition, a question that follows concerns how the presence of heterogeneous shareholders will
7 affect managerial behavior in response to the adoption of such practices.
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14 In this study, we specifically examine how foreign return-oriented shareholders, who are
15 primarily focused on obtaining higher financial gains from their portfolio investments, and
16 domestic relational shareholders, who are characterized by strategic objectives, affect EM
17 induced by the adoption of stock option pay in Japanese firms. Prior studies have theorized that
18 foreign investors typically seek financial returns and often impose shareholder-oriented CG
19 practices, even in institutional contexts where shareholder orientation is not deeply embedded. In
20 contrast, relational shareholders hold shares in other firms for relational or strategic purposes
21 (Ahmadjian and Robbins, 2005; David et al., 2010). The objective of this study is thus to
22 examine the effects of ownership heterogeneity on the EM of their invested firms when they
23 adopt stock option pay, a practice that is typically aligned with the interests of investors that seek
24 higher financial returns.
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40 Following prior research, we first suggest that the use of stock options increases EM,
41 which tends to distort disclosed information (Badolato et al., 2014). We theorize that managers
42 are motivated to adopt stock option pay to benefit themselves and to send a signal to capital
43 market participants that the firm prioritizes the shareholders' interests. We next compare the
44 effect of foreign return-oriented shareholders with that of domestic relational shareholders (i.e.,
45 shareholdings by affiliated firms and banks and board members from business partners) on EM.
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54 Our results show that foreign ownership accentuates managers' involvement in EM practices,
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3 while domestic relational ownership and affiliated directors mitigate such involvement. We thus
4 contend that while foreign return-oriented investors reinforce managerial incentives to engage in
5 EM, domestic relational actors can serve to mitigate the downside of a shareholder-oriented
6 practice induced by stock option pay. This finding implies that governance by domestic
7 relational actors, who aim to curve managers' orientation toward financial returns, may also
8 serve the interest of foreign return-oriented investors who may not be able to or have less
9 incentive to monitor managers' engagement in EM due to the high monitoring costs (Kim et al.,
10 2016).

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12 Our study advances CG research in multiple ways. First, this study contributes to
13 ownership heterogeneity research by showing that foreign return-oriented shareholders and
14 domestic relational shareholders have different effects on EM when their invested firms adopt
15 stock option pay. Our results suggest that domestic relational shareholders engage in more
16 intense monitoring using their home market advantage, thereby mitigating EM, while foreign
17 ownership accentuates it. Previous literature (e.g., Desender et al., 2016) claims that CG by
18 actors who do not seek financial goals in the stakeholder context does not protect the interests of
19 return-oriented investors because such governance does not resolve the agency problem that
20 those investors face. However, our study shows that while foreign ownership positively
21 moderates the effect of stock option pay on EM, which may not always be consistent with their
22 interests, governance by relational actors discourages EM induced by stock option pay. This
23 result suggests that even when the interests of different types of shareholders vary, there are
24 some circumstances when their interests are aligned. We thus document that the interests of
25 relational shareholders and affiliated directors (on the one hand) and those of foreign return-
26 oriented investors (on the other hand) are not always in conflict.

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3 Second, we show that the adoption of stock options also increases EM in a non-Anglo-
4 American context such as Japan. Although this finding is consistent with previous studies in the
5 U.S. (Burns and Kedia, 2006; Healy, 1985; Zhang et al., 2008), our theory is that this effect
6 slightly differs from the arguments proposed thus far in the literature, partly due to the
7 characteristics of the research context investigated. Although the proportion of stock-based pay
8 over total executive compensation is relatively low in Japanese firms compared to their U.S.
9 counterparts (Kubo, 2010; Pan and Zhou, 2018), our empirical evidence suggests that Japanese
10 managers still engage in EM not only to increase their private benefits but also to send a signal to
11 capital markets about their firm's focus on shareholders and financial performance. Since
12 Japanese firms have been under increasing pressure to improve financial returns, especially
13 because of their lack of emphasis on profitability (Ahmadjian and Robbins, 2005), managers
14 have incentives to respond to capital market pressures by resorting to EM. Hence, although the
15 amount of stock options given to Japanese managers is comparatively small, this type of
16 compensation still motivates them to engage in EM.
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35 **Literature background**

36 *Diffusion of shareholder-oriented CG practices*

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38 CG systems in different countries follow different orientations and are expected to lead to
39 different outcomes. In this respect, recent research regards specific CG systems as
40 representations of certain governance logics or orientations (Desender et al., 2016; Geng et al.,
41 2016), and each system consists of different actors pursuing different goals. Prior research
42 suggests that CG systems in major economies can typically be categorized into a shareholder or
43 Anglo-American model and a stakeholder model. The interests of shareholders are prioritized in
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3 the former, while those of key stakeholders, including strategic investors, receive greater
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5 attention in the latter (Aguilera and Jackson, 2003; Ahmadjian and Robbins, 2005).
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8 Despite persisting differences in CG structures across countries, shareholder-oriented
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10 practices such as equity-linked executive pay and independent boards based on agency theory or
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12 shareholder logic are increasingly adopted, even in countries with a long stakeholder-oriented
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14 tradition (Yoshikawa and Rasheed, 2009). Global institutional investors that manage portfolios
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16 across national boundaries represent a major force behind the diffusion of such practices,
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18 typically from the Anglo-American context to others (Fiss and Zajac, 2004; Geng et al., 2016).
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20 When new practices developed abroad enter regions with different norms, values, and systems,
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22 there is usually some resistance from local actors (Ahmadjian and Robinson, 2001; Sanders and
23
24 Tuschke, 2007). For example, awarding stock options to executives was not well received in
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26 Germany when it was first legalized in the late 1990s (Sanders and Tuschke, 2007).
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28 Nevertheless, when new practices are in the interest of powerful actors, such as managers, or a
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30 strong institutional force is driving such practices, adoption can still take place.
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36 One of the major drivers that leads to changes in CG systems and relevant practices is
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38 foreign institutional investors (Ahmadjian and Robbins, 2005; David et al., 2010). Prior research
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40 on Japanese firms shows that foreign shareholders often put pressure on their invested firms to
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42 focus more on short-term financial performance and strategic choices that prioritize their
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44 financial interests (Ahmadjian and Robinson, 2001; Yoshikawa et al., 2005). While previous
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46 studies have focused on managerial decisions that benefit return-oriented investors or relational
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48 investors who seek strategic interests (e.g., downsizing and diversification), this study examines
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50 managerial decisions to engage in EM, which serves the interest of neither type of shareholder.
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54 *Traditional governance model in Japan*
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3 Many institutional contexts embrace different governance orientations (Aguilera et al., 2018;
4 Greve and Zhang, 2017). In Japan, managers have not traditionally prioritized return-oriented
5 shareholders' interests but rather sought to pursue the interests of key stakeholders, such as in
6 certain Continental European countries (Dore, 2000). Such actions were permitted because the
7 majority of shares of Japanese listed firms have been controlled by domestic institutions that
8 were often labeled "relational" or "strategic" investors (David et al., 2010; Yoshikawa et al.,
9 2005). These shareholders held shares for mutual protection from external interference, for the
10 promotion of stable business relationships, and for mutual monitoring rather than to pursue
11 financial returns from their shareholdings (Gerlach, 1992; Sheard, 1994). This ownership
12 structure of Japanese firms allowed managers to avoid focusing exclusively on maximizing
13 profitability and firm value. There is indeed some anecdotal evidence suggesting that Japanese
14 managers are less short-term oriented compared to their U.S. counterparts, which explains why
15 they are less likely to manipulate performance measures (Chow et al., 1996).

16
17 In addition, Japanese boards have long been dominated by executives who are firm
18 insiders, thus enabling the boards to function as top management teams (Ahmadjian and
19 Okumura, 2005). While a small number of outsiders may be included on Japanese boards, those
20 board members were usually nonindependent outsiders from affiliated companies and financial
21 institutions that the focal firm had business relationships with often backed up by shareholdings,
22 bank loans, and long-term business transactions (Gerlach, 1992; Lincoln and Gerlach, 2004).

23
24 Although the business system described above still exists in Japan, salient changes related
25 to CG have occurred. Since the early 1990s, foreign institutional investors have increased their
26 investments in Japanese stocks (Ahmadjian and Robbins, 2005; David et al., 2010). Moreover,
27 since the legalization of stock option pay in 1997, Japanese firms began to adopt this type of

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3 compensation in response to pressures from portfolio investors and other capital market
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5 participants, who believed that Japanese managers should be incentivized to pay greater attention
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7 to firms' stock prices (Miyoshi and Nakao, 2007; Uchida, 2006). These developments suggest
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9 that Japanese managers are being increasingly exposed to shareholder-oriented governance;
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11 however, traditional local governance components, such as shareholdings by relational domestic
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13 investors and the presence of affiliated directors, still exist. Such coexistence presents an ideal
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15 setting to study how different types of shareholders with divergent interests influence managers'
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17 engagement in EM.
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20 21 *Earnings management*

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23 EM practices have been investigated in previous research in accounting, finance, and
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25 management to disentangle the agency costs of managerial incentive alignment mechanisms such
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27 as equity-based compensation (Healy, 1985; Jiarporn et al., 2008; Martin et al., 2019; O'Connor
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29 et al., 2006). EM is defined as "the use of judgment in financial reporting and transaction
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31 structuring to mislead other stakeholders or influence contractual outcomes" (Martin et al., 2019:
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33 707). Indeed, managers can opportunistically use their judgment or discretion in accrual
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35 estimation to show the appearance of solid future performance (Lel, 2019), which can be
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37 detrimental to investors when they make investment decisions. Empirical evidence supports the
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39 view that managers are motivated to actually manage disclosed earnings for their private benefits
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41 (Jiang et al., 2010; Zhang et al., 2008). Hence, EM represents an opportunistic managerial
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43 behavior that is not aligned with shareholder interests.
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49 While many studies on EM have been conducted in the U.S., Japanese managers have also
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51 been found to use EM to increase their executive bonus pay (Shuto, 2007). Beyond direct
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53 financial gains, managers may have another reason to engage in EM, namely, to enhance their
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3 reputation (Bowen et al., 1995). In fact, thanks to EM practices, managers can develop a positive
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5 reputation of their own managerial competence by showing steady performance growth
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7 (Teshima and Shuto, 2008). An improved managerial reputation can send a signal to
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9 shareholders and capital markets that a firm is managed by highly capable managers. In addition,
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11 although Japanese CEOs are less likely to be dismissed for poor firm performance than those in
12
13 other countries (Crossland and Chen, 2012), they still have incentives to address such scenarios
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15 by managing disclosed earnings because Japanese firms are often accused of low profitability
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17 and not prioritizing the interests of shareholders (Colpan et al., 2007).
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22 There is, however, a view that EM may not always be detrimental to shareholders and that
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24 it can sometimes even be beneficial (Healy and Wahlen, 1999; Jiarporn et al., 2008; Ronen and
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26 Yaari, 2008). The main benefits of EM are primarily derived from its use to convey private
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28 information to external parties and hence to reduce information asymmetries between insiders
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30 and outsiders. The effects of EM can also be ambiguous due to managers' overlapping motives
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32 to manage earnings. Regardless of the primary motivations behind EM and the underlying nature
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34 of such motivations (i.e., beneficial, detrimental, or neutral), it is indisputable that managers
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36 always gain some private benefits from this practice, such as by direct financial gains or
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38 intangible benefits, e.g., a positive reputation, whereas the costs in terms of managerial time and
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40 other firm resources to conduct EM are borne by the firm as a whole. Hence, the level of EM
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42 desired by managers (to achieve their personal benefits) likely deviates from the optimal level of
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44 EM from the firms' and shareholders' perspectives (Teshima and Shuto, 2008).
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49 An analysis of EM behavior is thus quite suitable for examining the tensions between
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51 foreign and domestic shareholders because managerial engagement in EM enables us to capture
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53 managers' desire to meet the expectations of foreign investors and the capital market (Burns and
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3 Kedia, 2006; Healy, 1985). However, EM is not beneficial to domestic relational shareholders
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5 that pursue long-term nonfinancial goals or even to shareholders that seek financial returns.
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7 Hence, the investigation of EM allows us to reveal a dark side of capital market pressure and to
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9 document the role that governance by relational shareholders may play in mitigating that dark
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11 side.
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14 **Hypotheses**

15 *Impact of stock option pay on EM*

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17 The rising capital market pressure that emerged in the 1980s in the U.S. created a growing
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19 influence of fund managers and financial analysts who tracked quarterly earnings. This trend has
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21 subsequently led to the short-term orientation of American executives (Dobbin and Jung, 2010).
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23 Prior works indicate that stock option grants in U.S. firms have further facilitated managerial
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25 short-termism (Jensen and Murphy, 1990), thereby leading managers to focus on short-term
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27 stock performance. Experimental research also suggests that when transparency is lacking,
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29 managerial stock ownership can create myopic self-interest behavior (Rose et al., 2013), which
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31 can in turn translate into aggressive financial reporting. As a result, stock option pay has created
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33 a managerial incentive to manage earnings. In other words, when stock option pay is adopted,
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35 managers are motivated to raise the stock price above the strike price by reporting accounting
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37 figures that are more in line with capital market expectations, which in turn allows them to enjoy
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39 higher financial benefits (Dobbin and Jung, 2010; Harris and Bromiley, 2007; Zhang et al.,
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41 2008).
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49 Previous studies indeed show that EM among large U.S. firms has increased significantly
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51 over time, largely due to managerial emphasis on shareholder value and to the use of stock
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53 options to remunerate executives (Dobbin and Zorn, 2005; Efendi et al., 2007). Prior empirical
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3 studies also indicate that managerial stock option pay increases EM in U.S. firms (Burns and
4 Kedia, 2006; Healy, 1985; Zhang et al., 2008). As managerial incentives to achieve good firm
5 performance will be amplified when stock-based compensation constitutes a large portion of
6 their total pay, managers are tempted to manage disclosed earnings. Hence, the relationship
7 between stock option pay and EM reflects a strong focus on short-term financial returns in the
8 U.S.
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17 In our research context, we contend that managerial motives behind EM induced by the
18 adoption of stock option pay are not only to realize private financial gains but also to signal to
19 external parties that managers cater to shareholders' interests and will attempt to meet the
20 expectations of capital markets, thereby enhancing their reputation. The focus on managerial
21 reputation is especially important in this study because Japanese firms initially resorted to stock
22 option pay partly in response to pressures from portfolio investors, who believed that Japanese
23 managers should be incentivized to emphasize shareholder value (Miyoshi and Nakao, 2007;
24 Uchida, 2006).
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35 Although the stock-based pay proportion of total executive compensation in Japanese firms
36 remains relatively low compared to that in their U.S. counterparts (Pan and Zhou, 2018), the
37 adoption of stock options to remunerate managers has increasingly spread in Japan (Kato et al.,
38 2005). This trend can be partly explained by the financial benefits that managers can gain, which
39 are nonetheless smaller compared to what their U.S. counterparts can obtain. However, another
40 important reason for the spread of this type of compensation among Japanese firms is that the
41 adoption of stock option pay sends a signal to capital market participants that managers will heed
42 their advice and care about the firm stock price. This argument suggests that managers of
43 companies that have adopted stock options are motivated to engage in EM not only for their own
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3 financial gain but also to convince external parties that they will prioritize the interests of
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5 shareholders and capital market participants. By conveying this message, managers will be able
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7 to enjoy a better reputation. We therefore propose the following baseline hypothesis.

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

11
12 *Enhancing role of foreign return-oriented shareholders*

13
14 One of the key agents that brings shareholder governance to the Japanese context is foreign
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16 institutional investors. While domestic shareholders have traditionally been major players in
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18 Japanese CG, the presence of foreign institutional investors has continued to increase since the
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20 1990s (Aguilera et al., 2017; Ahmadjian and Robbins, 2005), replicating the trend observed in
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22 many other countries, which is facilitated by globalization and foreign institutional investors'
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24 ease of access to other markets (Useem, 1998; Yoshikawa & Rasheed, 2009). These investors are
25
26 mostly institutional investors from the U.S. and the UK, with investors from the U.S. accounting
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28 for 44.2% of total foreign shareholdings in Japanese firms and investors from the UK accounting
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30 for 22.1% in 2007 (Bank of Japan, 2008). Unlike domestic shareholders that hold shares for
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32 strategic reasons, foreign investors mainly seek short-term financial returns (Aguilera et al.,
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34 2017; David et al., 2010). Likewise, as foreign investors increasingly follow shareholder logic,
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36 they prioritize shareholder value when they invest abroad (Ahmadjian and Robbins, 2005;
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38 Desender et al., 2016).

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41 Because of their focus on financial returns, foreign institutional investors exert pressure on
42
43 their invested firms' management to show good financial performance. These foreign investors
44
45 can influence managers by their voice and exit. For example, they can voice their views through
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47 voting at the general shareholder meeting and casting negative votes on director (including
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49 executive director) appointments and renewals, or they can also use an exit option to put pressure
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3 on managers. Given that foreign investors are relatively short-term oriented and thus tend to
4 trade shares much more frequently than domestic relational investors do, their investment
5 behavior significantly affects stock prices (David et al., 2006). In fact, over 50% of the total
6 trading on the Tokyo Stock Exchange in 2007 was done by foreign investors (Tokyo Stock
7 Exchange, 2008). Japanese managers thus have strong incentives to pay close attention to those
8 investors' expectations.
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Prior research on the effects of institutional investors on EM is mixed. While domestic institutional investors and directors are expected to reduce EM (García Osma and Gill-de-Albornoz, 2007), the influence of foreign institutional ownership is unclear. This discrepancy is because domestic institutional investors have a 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 et al., 2018), whereas 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 results show that foreign investors that are independent of their investees have no impact on the EM behavior of their Japanese investees while those with business relationships with their investees tend to reduce EM. As these findings are contrary to the results for firms in most other countries in the same study, this work 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 et al., 2000). Despite the rationale in Lel's research, 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

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3 over many shareholders despite the investor who monitors carrying all the costs (Bebchuk et al.,
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5 2017). Although total shareholding by foreign institutions increased to approximately 30% in
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7 2010 in Japan, each foreign institutional investor typically does not have a block position in any
8
9 particular firm, and their holdings remain fragmented (Miyajima et al., 2015).
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12 Accordingly, due to significant information disadvantages, among other reasons, foreign
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14 investors will incur higher monitoring costs and are thus less likely to scrutinize managerial
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16 behavior. Instead, foreign investors put pressure on Japanese managers to improve short-term
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18 financial performance through voice and exit. Therefore, when firms adopt stock option pay to
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20 signal to capital markets their emphasis on shareholders' financial interest, the presence of
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22 foreign investors should further incentivize managers to engage in EM. In this way, firms can
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24 justify performance achievements that meet foreign investors' expectations and in turn enhance
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26 their own reputation. Hence, we propose the following.
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31 **Hypothesis 2 (H2).** *Foreign ownership positively moderates the effect of the adoption of*
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33 *stock option pay on EM.*
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35 *Mitigating role of domestic relational shareholders*

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37 In the CG model that prevails in Japan, to secure business transactions and monitor their business
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39 partners and clients, domestic corporate and financial shareholders own shares in those firms. In
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41 this way, they shield their invested firms from capital market pressure and protect the interests of
42
43 key stakeholders, such as employees, managers, and affiliated companies (Gerlach, 1992;
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45 Yoshikawa et al., 2005). Long-term ties with partner firms are highly valued in this system; thus,
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47 managers do not consider short-term shareholder value maximization as their primary goal
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49 (Ahmadjian and Robbins, 2005; Gerlach, 1992). Domestic firms are embedded in this
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51 stakeholder-oriented system through interfirm (i.e., *keiretsu*) networks (Lincoln and Gerlach,
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3 2004), and the shares that domestic banks and nonfinancial firms own in other companies are not
4 held for financial benefits. Hence, those shareholders do not put pressure on the affiliated
5 companies in which they hold shares to enhance profitability and stock prices. Furthermore, they
6 may prefer that their partners exhibit stable growth over time rather than higher short-term
7 profits so that they can enjoy stable long-term transaction flows (David et al., 2010).
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14 Because shareholders who are business and alliance partners have different priorities, they
15 are likely to be more careful about managerial behavior in their invested firms when these firms
16 adopt stock option compensation and signal a greater capital market orientation. Under such
17 circumstances, domestic relational shareholders may recognize that managers could be inclined
18 to pay greater attention to short-term financial performance and stock prices at the expense of
19 other longer-term stakeholders' priorities. Furthermore, such managerial orientation may lead to
20 excessive EM that will not be beneficial to domestic relational shareholders who seek long-term
21 benefits. At the same time, since the close interfirm ties of relational shareholders often enable
22 them to have access to proprietary business information, they are in a better position to track and
23 monitor the financial results of their affiliated companies (Lincoln and Gerlach, 2004; Sheard,
24 1994). Due to their close links, they are also in a good position to assess the competence of
25 managers of the firms in which they invest.
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42 Although managers may be motivated to use EM to show steady growth and thereby to
43 enhance their managerial reputation (Teshima and Shuto, 2008), access to accurate financial
44 information by domestic relational shareholders may discourage those managers from engaging
45 in this practice. The reason is that domestic relational shareholders are well positioned to easily
46 detect discretionary accounting behavior. In addition, they have the ability to assess managers'
47 competence directly without the need to rely exclusively on financial achievements. The
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3 presence of domestic relational shareholders may thus mitigate the managerial propensity to
4 resort to EM based on the adoption of stock option pay. Therefore, we formulate the following
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6 hypothesis.
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10 **Hypothesis 3a (H3a).** *Domestic relational ownership negatively moderates the effect of*
11 *the adoption of stock option pay on EM.*
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14 In the Japanese CG context, domestic relational shareholders exert their influence not only
15 through shareholdings but also through dispatching their executives to their invested firms as
16 affiliated directors who are expected to defend their interests (Colpan and Yoshikawa, 2012;
17 Lincoln et al., 1992). In agency theory research, independent outside directors rather than
18 affiliated outsiders are expected to play a managerial monitoring role, thereby addressing
19 potential agency gaps between shareholders and managers. One of the key assumptions here is
20 that those directors represent investors' interests and hence act to protect shareholders from
21 managers' self-serving behavior (Fama and Jensen, 1983). Indeed, prior research finds that
22 independent boards and independent audit committees reduce corporate misconduct (Neville et
23 al., 2019; Upadhyay et al., 2014). While EM cannot be strictly treated as fraudulent behavior *per*
24 *se*, it nonetheless remains a practice that distorts the disclosure of accurate financial information.
25 According to agency theory, such a practice can be mitigated by independent outside directors or
26 audit committees. For example, Badolato et al. (2014) find that EM is reduced by audit
27 committees with financial expertise and high relative status, which are two characteristics
28 theorized to enhance the committee's effectiveness.
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49 However, the presence of independent outsiders on boards was not formally required until
50 quite recently in Japan. Only from 2015 onwards have listed firms been encouraged to have at
51 least two independent directors following the new Corporate Governance Code. Hence, most
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3 Japanese firms did not have an independent director until the recent change. Instead, affiliated
4 directors who are connected with a firm's major partners through shareholdings, bank loans, and
5 long-term supplier-buyer transactions (Gerlach, 1992; Lincoln and Gerlach, 2004) are well
6 positioned to exert a significant influence on managers' EM practices, especially because
7 director dispatch to a business partner firm is considered much more significant than
8 shareholding alone in interfirm relationships in the Japanese context (Lincoln et al., 1992).
9 Moreover, not all domestic relational shareholders can send their executives as affiliated
10 directors to their partner firms. Those affiliated outsiders are traditionally appointed to represent
11 a commitment to maintaining stable business relationships, interfirm collaboration, and mutual
12 monitoring. Therefore, it is important to note that these affiliated directors do not sit on boards to
13 protect the interests of return-oriented shareholders, such as foreign institutional investors.

14
15 Since affiliated directors represent the interests of affiliated entities that have strategic
16 long-term interests in the focal firm, they do not usually push for higher short-term financial
17 returns (Colpan and Yoshikawa, 2012; David et al., 2010). Conversely, following the same
18 argument presented earlier for domestic relational shareholders, affiliated directors are likely to
19 more closely scrutinize the potential preferential treatment of return-oriented shareholders by
20 managers when the focal firm has adopted stock option pay. Although the adoption of stock
21 options may trigger managers to engage in EM to meet capital market expectations, affiliated
22 directors can mitigate such a practice because they have direct access to inside corporate
23 information. Indeed, due to their board status, these directors can exert direct monitoring on the
24 financial figures of the firms in which they are board members. In addition, as such directors can
25 easily assess the managerial competence and thus the reputation of the affiliated firms'

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3 managers, they likely discourage those managers from resorting to EM to convey the appearance
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5 of good performance. Therefore, we hypothesize the following.
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8 **Hypothesis 3b (H3b).** *Affiliated outside directors negatively moderate the effect of the*
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10 *adoption of stock option pay on EM.*

11 12 **Methods**

13 14 *Data*

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16 Different types of data are needed to test our hypotheses, namely, financial and accounting data,
17
18 firm ownership data, and other governance mechanisms of the company data (i.e., the use of
19
20 stock options and the composition of the board). Therefore, the data are collected from three
21
22 main sources, namely, the *Nikkei Needs* database, *Kaisha Shikiho* (Japan Company Handbook),
23
24 and *Yakuin Shikiho* (Board of Directors Handbook), and complemented with some manual and
25
26 individual searches (e.g., to identify affiliated outside directors). These sources of information
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28 have also been used in prior research that focuses on the Japanese context (e.g., David et al.,
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30 2010; Geng et al., 2016).
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35 The final sample is determined by the availability of the necessary data and by two other
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37 requirements. First, we need three consecutive years of information on the variable cash flow
38
39 from operating activities to measure EM, as seen in Equation (2) below. Second, after defining
40
41 all variables to be used in the analyses (see below) and deleting observations with missing values
42
43 in any of those variables, we also require at least five consecutive years of data for each company
44
45 to obtain an unbalanced panel without gaps. This requirement is necessary to use the panel data
46
47 method described in the Estimation method section. After applying these filters, our final sample
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49 includes 856 Japanese firms (6,907 firm-year observations) listed in the first section of the
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51 Tokyo Stock Exchange between 2000 and 2010. However, it should be noted that in the
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3 estimation process, we lose one year of data per firm because of the dynamic nature of our
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5 empirical specifications (i.e., the lag of EM is included on the right-hand side of the models) and
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7 because all regressors are lagged, as captured in Equations (3) and (4) below. Therefore, the
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9 models are estimated using 6,051 (i.e., 6,907 – 856) observations.
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12 *Dependent variable*

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14 Several approaches for measuring EM have been proposed in the accounting literature. In most
15
16 cases, the underlying goal is to capture the discretionary part of the accrual component of
17
18 earnings. To achieve this objective, it is necessary to (i) obtain a measure of total accruals and
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20 (ii) select the determinants of nondiscretionary accruals. Once these two steps have been taken,
21
22 the proxy measure of discretionary accruals (and hence of EM) is obtained as the component of
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24 total accruals that cannot be explained by nondiscretionary accruals' determinants. Regarding the
25
26 first step and consistent with previous accounting literature (e.g., Dechow et al., 2012), our
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28 measure of total accruals (i.e., working capital accruals, $WCACC_{it}$) is calculated as follows:
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$$32 \quad WCACC_{it} = (\Delta CA_{it} - \Delta CL_{it} - \Delta Cash_{it} + \Delta STD_{it}) / A_{i,t-1} \quad (1)$$

33
34 where ΔCA represents the change in current assets, ΔCL represents the change in current
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36 liabilities, $\Delta Cash$ represents the change in cash and cash equivalents, ΔSTD represents the
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38 change in short-term liabilities, and A represents the total assets. For the second step, which is
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40 related to the determinants of nondiscretionary accruals, we follow the strategy proposed by
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42 McNichols (2002), which includes the variables previously considered by Jones (1991) and
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44 Dechow and Dichev (2002) as explanatory variables in one single specification. In particular, the
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46 estimated model is as follows:
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$$50 \quad WCACC_{it} = \alpha + \beta_1 \Delta REV_{it} + \beta_2 PPE_{it} + \beta_3 CFO_{i,t-1} + \beta_4 CFO_{it} + \beta_5 CFO_{i,t+1} + \varepsilon_{it}, \quad (2)$$

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3 where ΔREV is the change in revenues, PPE represents property, plant, and equipment, and CFO
4 is the cash flow from operating activities. All variables are scaled by total assets. The first two
5 regressors (ΔREV and PPE) were proposed by Jones (1991), whereas the cash flow variables
6 (CFO) were obtained from Dechow and Dichev's (2002) model.
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12 A noteworthy advantage of McNichols' model is that it has higher explanatory power
13 (i.e., higher adjusted R^2) than the specifications proposed by Jones and Dechow and Dichev;
14 hence, it captures the nondiscretionary part of accruals more accurately. Then, the discretionary
15 accruals (i.e., the EM measure in our subsequent regression analyses) represents the difference
16 between total accruals and the *predicted* nondiscretionary accruals, as calculated using the
17 estimated coefficients from Equation (2). Such difference is precisely the residuals from the
18 equation ($\hat{\varepsilon}_{it}$). In other words, our EM measure is the part of the total accruals that remains
19 unexplained by the factors that determine nondiscretionary accruals. Recent studies suggest a
20 similar strategy to estimate EM (e.g., Ali and Zhang, 2015; Capalbo et al., 2018; Ham et al.,
21 2017; among several others).
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35 *Independent and moderating variables*

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37 The main variable of interest is *stock options*, which is a dummy variable that equals one in firm-
38 year observations in which the company uses this type of compensation. Given that the adoption
39 of stock options to remunerate executives is relatively recent in Japan and that the fraction of the
40 compensation from this source in Japan is not as important as it is in other developed economies
41 (Pan and Zhou, 2018), using a dummy is an appropriate approach for testing our hypotheses. We
42 include three moderators in our empirical models: *foreign ownership*, which is the fraction of
43 shares owned by foreign institutional investors; *domestic ownership*, which is the fraction of
44 shares in the hands of domestic financial and nonfinancial corporate investors; and *affiliated*
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3 *directors*, which represents the proportion of outside directors who are full-time
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5 employees/managers in other Japanese firms that are business partners (see Colpan and
6
7 Yoshikawa, 2012).
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10 *Control variables*

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12 All of our empirical models include a number of control variables that could affect EM. We
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14 capture a firm's financial profile through several factors: *size*, which is measured as the natural
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16 logarithm of firm sales; *profitability*, which is the ratio of gross profits scaled by total assets; and
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18 *leverage*, which is the ratio of total debts to total assets. Two firm investment variables are also
19
20 included in the models: *capital expenditures* and *R&D*, which are both divided by total assets.
21
22 Moreover, *sales growth* serves as a proxy for firm growth opportunities, *exports* represents the
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24 fraction of exports over total sales and captures the extent to which the company is exposed to
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26 competition in foreign markets, and *age* is the logarithm of one plus the number of years since
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28 the company's founding. Finally, we consider a control variable related to the CG context that
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30 characterizes Japan. Specifically, we define a *board reform* dummy that takes the value of one in
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32 those firm-year observations in which the firms adopted the board reform measure that separated
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34 executive officers from the board of directors, and it was pioneered by Sony in 1996 (see
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36 Yoshikawa et al., 2007). All our models include time and sector dummy variables. The means
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38 and standard deviations of all variables and the bivariate correlations are presented in Table 1
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44 (Panel A).
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47 [Insert Table 1 about here]

48 49 *Empirical specifications*

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51 To test H1, we develop an empirical model in which the main explanatory variable of interest is
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53 stock options. The resulting specification is as follows:
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$$EM_{it} = \alpha + \beta_0 EM_{i,t-1} + \beta_1 Stock\ options_{i,t-1} + Controls + \varepsilon_{it}, \quad (3)$$

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 (3) is then extended as follows to test H2, H3a, and H3b:

$$EM_{it} = \alpha + \beta_0 EM_{i,t-1} + \beta_1 Stock\ options_{i,t-1} + \beta_2 Stock\ options_{i,t-1} * MOD_{i,t-1} + \beta_3 MOD_{i,t-1} + Controls + \varepsilon_{it}. \quad (4)$$

where *MOD* refers to the moderating variables (i.e., *foreign ownership, domestic ownership, and/or affiliated directors*) that are expected to shape the effect of stock option pay on EM and β_2 should be positive (negative) to find support for H2 (H3a and H3b).

Estimation method

To estimate the empirical models, we carefully select an estimation method, namely, the system generalized method of moments (GMM) (Blundell and 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 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

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3 method that relies on a set of internal instruments contained within the panel itself (Abdallah et
4 al., 2015; Hashai et al., 2018; Wintoki et al., 2012). The GMM has already been used in prior
5 EM research to address endogeneity (Kim et al., 2016; Liu et al., 2018). We use lags from $t-2$ to
6 $t-5$ as instruments for all right-hand side variables in the GMM equations in differences and only
7 one instrument in the level equations.
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12 We conduct several specification tests to check that our empirical models are correctly
13 specified. The Hansen overidentification statistic (Hansen) enables us to test the validity of the
14 instruments chosen. The second-order serial correlation test (m_2) developed by Arellano and
15 Bond (1991) is used to ensure that there is no such problem in our regression analyses. We also
16 conduct a Wald test to check the joint significance of the explanatory variables (z_1).
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26 **Results**

27 *Descriptive analyses*

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29 We conduct a mean difference test to check whether there are any differences in the EM level
30 between firms that have adopted stock option pay and those that do not use this type of
31 compensation. The findings are reported in Table 1 (Panel B). The results highlight that the
32 average EM is -0.002 (Column 1) in companies with stock options and -0.007 (Column 2) in
33 those that do not resort to this type of compensation. Therefore, consistent with expectations, we
34 confirm a higher EM level in firms that adopt stock options ($-0.002 > -0.007$). The difference
35 between the means of both groups was statistically significant and amounted to 0.005 (Columns
36 $1-2$); $SE = 0.001$, and $p\ value = 0.000$. Regarding the interpretation of these average EM values,
37 it is important to consider that by construction, they are close to zero, as highlighted in prior
38 research (e.g., Dai et al., 2017; García Lara et al., 2005; Hribar and Nichols, 2007). In fact, the
39 mean EM in the full sample (i.e., -0.006 , as reported in Panel A) is consistent with the results
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3 obtained in previous studies that have used a similar approach to estimating EM (e.g., Huguet
4 and Gandía, 2016; Prior et al., 2008) and implies that the mean discretionary accruals are -0.6%
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6 of the total assets. This value is comparable to the 0.5% and -0.42% values for the U.S. context
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8 reported by Kim et al. (2012) and Capalbo et al. (2018), respectively.
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12 For ease of interpretation of all the EM values discussed in the study, including those we
13 have just reported as part of the mean difference test, it must be noted that EM can take positive
14 and negative values since this factor can be used for upward or downward earnings
15 manipulation. Regardless of the sign, note that changes in the variable (increases or decreases)
16 have a linear interpretation because a higher value implies either less downward EM (when
17 going from a more negative EM value to a negative value closer to zero) or more upward EM
18 (when going from a positive EM value closer to zero to a larger positive value). This clarification
19 is important because it implies that the dependent variable in our empirical models is not
20 bounded, thus enabling us to avoid methodological complications. More importantly, given that
21 our main interest is in analyzing whether stock option pay leads to accounting practices that
22 convey a better image of the firm (either less downward or more upward EM) and whether such
23 a strategy depends on shareholder- and stakeholder-oriented governance mechanisms, using the
24 signed EM variable in our regressions is the correct approach to mitigating the risk of biased
25 results. In fact, prior research supports the view that signed discretionary accruals are a better
26 measure of EM (e.g., Francis and Wang, 2008; Hribar and Nichols, 2007; Owens et al., 2017).
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47 Having clarified this point, we can repeat the univariate test by distinguishing between two
48 subsamples defined by the sign of EM (positive or negative) to better understand whether the
49 higher EM in firms that adopt stock options is due to less downward EM or more upward EM.
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51 Interestingly, we observe that the statistically significant differences previously reported are
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3 attributable to the subsample with upward EM (positive EM). We observe that among the
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5 subgroup of firms with positive EM, those that use stock options (EM = 0.027, Column 1)
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7 exhibit higher average EM than those that do not use this type of compensation (EM = 0.021,
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9 Column 2). The resulting difference was 0.005 (Columns 1–2) (SE = 0.001; *p value* = 0.000). In
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11 contrast, the difference in EM is not statistically significant in the subsample of negative EM.
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14 Overall, the results from the univariate tests support the idea that a shareholder-oriented
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16 governance mechanism, such as stock option pay, induces accounting practices aimed at inflating
17
18 reported earnings.
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21 *Regression results*

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23 To test H1, we estimate an empirical model in which the explanatory variable of interest is stock
24
25 options. The empirical evidence obtained supports our hypothesis and highlights that the
26
27 adoption of stock options increases discretionary accruals (see Table 2, Column 1). The effect of
28
29 stock option use on EM is $\beta = 0.006$ (SE = 0.001; *p value* = 0.000), and the 95% confidence
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31 interval is [0.004, 0.007]. Regarding the economic relevance of this result, the increase in EM
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33 associated with the use of stock options (as captured by the estimated coefficient) amounts to
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35 26.09% of the mean EM level in the subsample of observations with positive EM values (=
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37 [0.006/0.023] * 100). Therefore, we confirm the practical relevance of our findings.
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42 [Insert Table 2 about here]

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44 Having shown that stock options increase EM, we next examine whether shareholder- and
45
46 stakeholder-oriented governance structures either amplify or mitigate the positive impact of
47
48 stock options on EM. The first moderating factor we consider is foreign ownership. Consistent
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50 with H2, we find that the positive relationship between stock options and EM depends on the
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52 level of foreign ownership. Note that the interaction term between this ownership type and stock
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3 options presented in Table 2 (Column 2) exhibits a positive estimated coefficient of $\beta = 0.029$
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5 (SE = 0.006; *p value* = 0.000) and a 95% confidence interval of [0.017, 0.041]. Figure 1 offers a
6
7 graphical representation of the moderating effect of foreign ownership. Before analyzing the
8
9 figure, let us recall that our EM measure can take positive and negative values, as noted above in
10
11 the descriptive analyses subsection. Given that the purpose of Figure 1 (and the remaining
12
13 figures presented in the paper) is to graphically capture the interaction effects and facilitate the
14
15 interpretation of the regression results, we assume an EM baseline scenario equivalent to the
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17 average EM in the subsample with positive EM values (i.e., 0.023). Note that this assumption
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19 does not condition our empirical evidence in any way and is only a strategy to represent the
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21 regression results and capture their economic relevance in a more illustrative way that is easier to
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23 understand.
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28 Focusing now on Figure 1, we observe that for a low level of foreign ownership, EM
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30 remains relatively stable (and even experiences a slight reduction) as firms without stock options
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32 decide to adopt this type of pay. In contrast, the influence of stock options on EM is clearly
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34 positive in companies in which foreign investors own a large stake (dashed line). Specifically,
35
36 the degree of EM in companies that use stock options and have a high (low) foreign ownership
37
38 level is 0.031 (0.022). These results indicate that among firms that have adopted stock option
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40 pay, EM is 40.91% higher ($= [(0.031 - 0.022)/0.022] * 100$) in firms with a large foreign
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42 investor than in those with low foreign ownership. Such a notable difference is a clear sign of the
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44 economic importance of our findings.
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49 [Insert Figure 1 about here]
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51 To test H3a, we consider the interaction between stock option pay and domestic ownership.
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53 The estimated coefficients presented in Table 2 (Column 3) are in line with expectations. The
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3 positive impact of stock options on EM is mitigated when this type of compensation is used by
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5 companies in which domestic owners have a large stake. Note that the estimated coefficient on
6
7 the interaction term is $\beta = -0.015$ (SE = 0.003; *p value* = 0.000), with a 95% confidence interval
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9 of [-0.021, -0.009]. To check the economic relevance of this result, we plot the effect of stock
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11 options on EM for high versus low domestic ownership levels (see Figure 2). Interestingly, we
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13 observe that in firms with a large domestic shareholder (dashed line), adopting stock options
14
15 leads to a negligible increase in the EM level. To further highlight the role of domestic
16
17 ownership in mitigating EM, it is worthwhile to note that the use of stock options combined with
18
19 high domestic ownership is associated with a degree of EM of just 0.027, whereas stock options
20
21 combined with low domestic ownership has a degree of EM of 0.030. Therefore, among
22
23 companies that use stock options, EM is 10.00% lower (= [(0.027 - 0.030)/0.030] * 100) when
24
25 domestic ownership is high.
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31 [Insert Figure 2 about here]
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33 Finally, we are interested in analyzing whether affiliated outside directors mitigate the
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35 positive impact of stock options on EM (H3b). To this aim, we include on the right-hand side of
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37 the model the interaction between stock options and affiliated directors. The empirical evidence
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39 in Table 2 (Column 4) supports our expectations. We find that the positive effect of stock options
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41 on EM is counteracted by the corresponding negative impact that occurs when the fraction of
42
43 affiliated outside board members is high. Note that the estimated coefficient on the interaction
44
45 term between the two variables of interest is $\beta = -0.067$ (SE = 0.004; *p value* = 0.000), with an
46
47 associated 95% confidence interval of [-0.074, -0.060]. Figure 3 highlights that the impact of
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49 stock options on EM depends on the type of directors that constitute the board. The initial
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51 positive relationship between stock options and EM turns into a relatively flat slope when the
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3 board consists of more affiliated directors (dashed line). Focusing on firms that use stock
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5 options, we observe that having more affiliated outside directors in the company leads to a
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7 degree of EM equivalent to 0.026, whereas when the number of affiliated outside directors is
8
9 low, EM increases to 0.030. 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, thus
10
11 validating the practical relevance of our finding. As Table 2 (Column 5) shows, the regression
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13 results remain unchanged when we simultaneously include the interactions of stock options with
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15 the three investigated governance mechanisms (foreign ownership, corporate ownership, and
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17 affiliated directors) on the right-hand side of the model.
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24 [Insert Figure 3 about here]
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26 *Robustness tests*

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28 Regarding the baseline positive effect of stock options on EM, it could be attributed simply to an
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30 increase in executives' compensation rather than to a shareholder orientation (in the sense that
31
32 this type of compensation contributes to aligning managers' and investors' interests). To rule out
33
34 this possibility, we collected information on the executive directors' total compensation and
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36 bonuses and examined how they affect EM. In line with H1, we expect that higher EM is driven
37
38 by the pay type that induces short-termism and is more capital market-oriented (bonuses) and not
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40 by total compensation.
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45 The new regression results are reported in Table 3. We should clarify that the analyses in
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47 which we include the bonus variable (Columns 3 and 4) are carried out with a smaller sample
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49 due to limited data availability. First, we find that total compensation, as captured by the
50
51 logarithm of the average annual compensation of all executive directors in the firm, has no effect
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53 on EM (see Columns 1 and 2). However, as Column 2 shows, the stock options dummy retains
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3 the previously documented positive effect. Second, we observe that an increase in the
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5 executives' bonuses, defined as the logarithm of the average annual bonus received by
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7 executives, does have a positive impact on EM (Columns 3 and 4). At the same time, we find
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9 that the use of stock options continues to influence EM positively, as reported in Column 4.
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11 Therefore, consistent with expectations, short-term and shareholder-oriented compensation
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13 strategies (such as bonuses and stock options) are shown to lead to higher EM.
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17 [Insert Table 3 about here]
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19 As previously explained, there are several approaches to measuring discretionary accruals.
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21 We rely on the strategy proposed by McNichols (2002) in our main analyses. To check the
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23 consistency of our findings, we reestimate the EM specifications by capturing discretionary
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25 accruals as proposed by Dechow and Dichev (2002). Therefore, our new EM measure consists of
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27 the residuals from a working capital accruals (*WCACC*) model in which the explanatory
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29 variables are the cash flows from operating activities (*CFO*) in $t-1$, t , and $t+1$. Our findings are
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31 consistent with previously reported results (see Table 4, Panel A).
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35 [Insert Table 4 about here]
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38 An additional robustness test concerns the measure of our main explanatory variable (i.e.,
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40 stock option pay). As documented in prior research (e.g., Hasegawa et al., 2017; Kato et al.,
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42 2005; Shinozaki et al., 2016), whether firms adopt stock options to remunerate directors and
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44 managers is particularly informative and meaningful in the Japanese context, where “prior to
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46 June 1997, [...] firms were effectively precluded by law from using stock options as part of the
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48 executive compensation package” (Kato et al., 2005: 436) and where the fraction of executive
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50 incentive compensation (including stock option grants) has been traditionally low compared to
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52 that of other countries, such as the U.S. (Waldenberger, 2013). Nonetheless, recognizing the
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3 potential limitations of a binary variable, we have manually collected additional data that allow
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5 us to check the robustness of our findings to an alternative operationalization of the stock option
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7 pay variable. Given that the value of stock options is only available for the most recent years of
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9 the sample period and for a reduced number of the sample firms, we are unable to use this
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11 measure. However, we manually collected the number of firm shares targeted by stock options.
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15 With this information, we have defined a continuous stock option pay variable based on the
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17 work by Kato et al. (2005: 450), who “measure option incentives as the number of shares granted
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19 as a fraction of the outstanding shares.” Specifically, the new variable is the fraction of firm
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21 shares targeted by stock options over total outstanding shares. This measure allows us to assess
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23 the intensity with which the Japanese firms covered in the sample resort to this type of
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25 compensation. Due to missing data, the new regression analyses are conducted with a slightly
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27 smaller sample of 768 firms (6,154 firm-year observations). The new regression results are
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29 reported in Table 4 (Panel B) and show that our findings remain qualitatively unchanged when
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31 we use a continuous measure of stock option pay in the regression analyses.
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36 Finally, we re-estimate our empirical models by controlling for the potential selection bias
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38 that might affect the foreign ownership variable. In this respect, it is worth noting that our
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40 estimation strategy (i.e., the use of panel data and the GMM) already allows us to account for the
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42 two most important sources of endogeneity problems: unobserved heterogeneity and reverse
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44 causality. Regarding the foreign ownership variable, by using the GMM (which is an
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46 instrumental variable estimator), we are able to control for the possibility that companies that
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48 publish higher-quality accounting information attract higher stakes from foreign institutional
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50 investors (i.e., we address concerns over a possible reverse causality problem). However, there
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52 could still be a selection bias in which foreign investors select Japanese firms with particular
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3 governance configurations and/or financial features. To alleviate this concern, we apply a two-
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5 step Heckman self-selection strategy.
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8 The first step consists of a probit model in which the dependent variable is the probability
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10 of having a foreign investor that owns more than 5% of the company. The explanatory variables
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12 are the same ones included in the EM models plus the average foreign ownership in the
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14 corresponding year among firms that belong to the same industry as the focal company but
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16 excluding the focal company's own value in the computation. Based on the work by Desender et
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18 al. (2016), we use this variable as the exclusion restriction in the first step of the Heckman
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20 strategy. Its adequacy is justified by the fact that the average foreign ownership in the sector is
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22 likely to determine the probability of having a foreign investor that owns more than 5% of the
23
24 company, whereas foreign shareholders' stakes in other industry peers are unlikely to affect the
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26 focal firm's EM level. With the results from the first-step probit regression, we estimate the
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28 inverse Mills ratio, which is then included as an additional explanatory variable in the second-
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30 step models. In this way, we control for the potential self-selection problem that might influence
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32 our foreign ownership variable in the EM specifications.
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38 We should note that a few firms are lost in the exclusion restriction variable calculation;
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40 hence, the final sample used in this robustness test includes 852 firms (6,872 firm-year
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42 observations). The results from the second-step regressions, which allowed us to test the
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44 hypotheses, are reported in Table 4 (Panel C) and show that our findings continue to hold when
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46 we simultaneously control for unobserved heterogeneity, reverse causality, and self-selection
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48 bias.
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51 **Discussion**

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3 We have investigated the effect of stock option pay on EM and have further examined how
4 ownership heterogeneity, especially foreign return-oriented shareholders and domestic relational
5 shareholders, amplifies or mitigates this effect in a stakeholder-oriented context. Our findings
6 show that Japanese firms that have adopted stock option pay are more likely to engage in EM.
7
8 The empirical evidence obtained on the effect of stock options is consistent with prior research
9 conducted in the U.S. (Burns and Kedia, 2006; Harris and Bromiley, 2007), suggesting that
10 managers, even in a stakeholder-oriented environment, are also susceptible to the pressure and
11 temptation to engage in a practice that may influence the perceptions of capital market
12 participants. Our results on the effects of foreign ownership show that foreign institutional
13 investors are not effective in curbing the practice of EM because they lack the proximity
14 advantage that characterizes their domestic counterparts (Kim et al., 2016; Liu et al., 2018). We
15 also advance the previous literature by showing that in the Japanese context, relying on foreign
16 owners leads to even higher EM when coupled with stock option pay.
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33 Our research also advances previous studies to the extent that we have analyzed whether
34 relational CG actors mitigate the influence of stock option pay on EM. Our results indicate that
35 domestic relational ownership and affiliated directors do exert negative moderating effects.
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37 These results suggest that while a shareholder-oriented or Anglo-American CG practice also
38 displays a downside in terms of higher EM in a stakeholder-focused institutional context,
39 relational CG mechanisms can help to address this drawback. Our findings hence imply that to
40 mitigate distorted information disclosures triggered by a shareholder-oriented practice (stock
41 option pay), relational shareholders can substitute for monitoring mechanisms (such as
42 independent boards and audit committees) that are prevalent in contexts where shareholder value
43 maximization is prioritized.
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3 This study makes several contributions to the CG literature. We first show that in an
4 institutional context in which financial returns for shareholders are not always prioritized
5 (Aguilera et al., 2008; Hall and Soskice, 2001), shareholder-oriented CG imported from the U.S.
6 still plays a role similar to that reported in shareholder-oriented environments. In particular, we
7 observe that the presence of equity-linked executive compensation has equally detrimental
8 effects in Japan as it has in the U.S. in terms of the accuracy of accounting figures. These
9 findings resonate with the results presented by Geng et al. (2016), who document that Japanese
10 managers leverage foreign institutional or shareholder logic to implement stock option pay,
11 which is advocated by foreign investors but also benefits the managers themselves. Even in a
12 stakeholder-oriented institutional context, managers do not always act to balance the interests of
13 key stakeholders because they also pursue their own interests (e.g., private financial benefits as
14 well as an enhanced managerial reputation).

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31 Second, this study contributes to research on ownership heterogeneity. Prior research
32 highlights the divergent objectives and interests attributed to diverse types of shareholders (e.g.,
33 Ahmadjian and Robbins, 2005; David et al., 2010). Instead of analyzing the varying strategic
34 preferences among different types of shareholders, which are reflected in their influence on
35 specific performance outcomes (profit versus growth) and strategic decisions (restructuring and
36 diversification), our study focuses on whether their interests may converge despite their different
37 incentives and monitoring (dis)advantages. While EM benefits neither foreign return-oriented
38 shareholders nor domestic relational shareholders, the former amplifies such a practice and the
39 latter prevents it. Desender et al. (2016: 353) contend that “the bundle of governance
40 mechanisms employed by domestic shareholders in a stakeholder-oriented setting is unlikely to
41 solve the agency problems faced by shareholder-oriented foreign owners” because the primary
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3 objective of those domestic CG actors is not higher financial returns. Conversely, our empirical
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5 evidence supports the idea that CG actors who seek nonfinancial goals play an important role in
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7 mitigating some risks to which return-seeking shareholders are exposed, suggesting that the
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9 interests of different types of shareholders are aligned under certain circumstances.
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12 The empirical evidence also has practical implications. While shareholder-oriented CG
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14 practices, such as equity-linked executive pay, are spreading globally and institutional investors
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16 hold their equity stakes in many firms throughout the world, the negative effects of those
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18 practices in different institutional contexts are still poorly understood. This study shows that
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20 while stock option pay may contribute to aligning the interests of managers with those of some
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22 shareholder types, such that managers pay greater attention to financial performance, this type of
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24 compensation also incentivizes managers to act opportunistically by managing accounting
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26 numbers. Without effective mechanisms, such as independent boards or alternative structures
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28 (e.g., affiliated directors) that can mitigate such managerial behavior, the adoption of practices
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30 from different governance regimes may lead to undesirable outcomes. Thus, it is critical to
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32 examine the CG model in which the firm is embedded and to disentangle how it can complement
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34 or provide substitute mechanisms related to the new practices introduced from a different model.
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40 This study is not without some limitations that warrant future research. First, we have
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42 explored stock option pay as the source of the main effect and foreign institutional ownership as
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44 a moderator in our analysis of the effect of shareholder-oriented CG. While these mechanisms
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46 have been studied in previous works (David et al., 2010; Desender et al., 2016; Geng et al.,
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48 2016), other shareholder-oriented mechanisms, such as analyst following, have not received
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50 much attention in stakeholder-oriented contexts such as Japan. Thus, future research can explore
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52 the influence of other practices outside shareholder-oriented contexts.
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3 Second, our study focuses on affiliated directors as one of the relational monitoring
4 mechanisms but does not consider independent directors because very few independent directors
5 were on Japanese boards during the time period covered. Nevertheless, the number of
6 independent directors has been gradually increasing over time since the implementation of the
7 new Corporate Governance Code in 2015. It could be interesting to investigate the effects of
8 independent outsiders on boards on EM or on other firm outcomes in which the drawbacks of
9 shareholder-oriented practices are reflected. The goal would be to disentangle whether
10 independent and affiliated directors have different effects. Such studies may provide new
11 insights into alternative CG combinations.
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24 In relation to the geographical setting, given that our empirical analyses are based on
25 Japanese data, we need to be cautious in generalizing the results to other countries, including
26 other stakeholder-oriented contexts, e.g., some European countries. Key firm stakeholders vary
27 across regions and countries, and the goals they pursue are likely to be different. Therefore, the
28 effects derived from the involvement of these stakeholders in focal firms are expected to differ,
29 regardless of whether they are involved as shareholders, board members, or in another role.
30 Hence, when analyzing other contexts, it is necessary to identify the main stakeholders and
31 carefully understand their interests and motivations.
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42 **Conclusion**

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44 This study presents new findings on how a “hybrid” CG model functions in a stakeholder-
45 oriented institutional context. While shareholder-oriented practices, such as equity-based
46 compensation, have been adopted in many institutional contexts, how these practices are
47 functioning and how they affect managerial behavior in different contexts are poorly understood.
48 This study investigates the relationship between stock option pay and EM and the moderating
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effects of heterogeneous shareholders with varying interests and incentives in this relationship.

As the coexistence of imported (shareholder-oriented) and local (stakeholder-oriented) practices is not unique to our research context, we trust that our work will provide new insights and inspire new research on the interactions among distinct CG mechanisms in different contexts.

Peer Review Version

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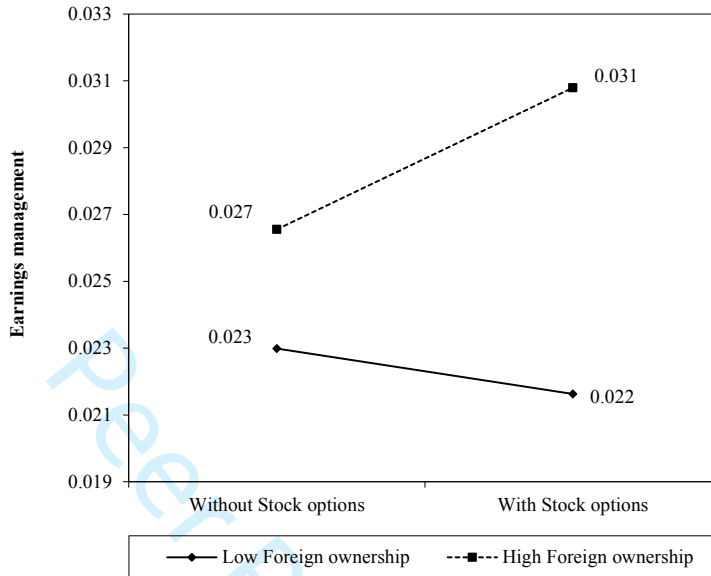
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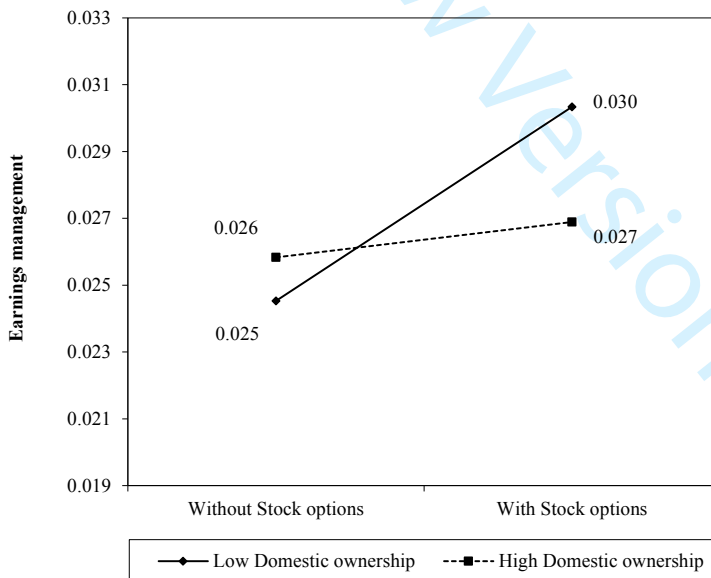
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Figure 1. Moderating role of foreign ownership in the relationship between stock options and EM

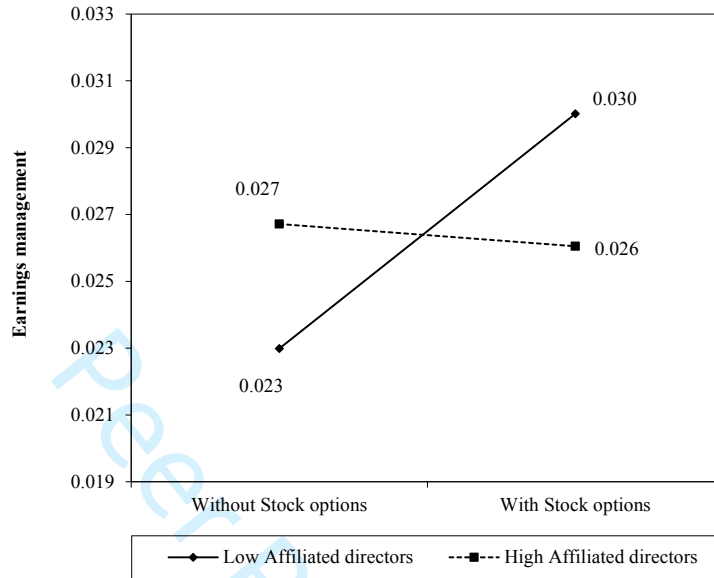


Note: The figure plots the effect of stock option pay on EM in the low versus high foreign ownership scenarios (at 1 SD around the average foreign ownership), taking into account the bounded nature of the moderator (between 0 and 1) and assuming an EM baseline level equal to the average EM in the subsample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

Figure 2. Moderating role of domestic 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 ownership scenarios (at 1 SD around the average domestic ownership), taking into account the bounded nature of the moderator (between 0 and 1) and assuming an EM baseline level equal to the 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 director scenarios (at 1 SD around the average affiliated directors), taking into account the bounded nature of the moderator (between 0 and 1) and assuming an EM baseline level equal to the average EM in the subsample with positive EM values.

Table 1. Summary statistics, correlation matrix, and mean difference tests

Panel A: Summary statistics and correlation matrix																
	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
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. Domestic ownership	0.523	0.155	-0.00	-0.17	-0.05	1.00										
5. Affiliated directors	0.039	0.076	0.03	0.08	0.06	0.06	1.00									
6. Size	11.518	1.240	0.04	0.01	0.47	0.21	0.01	1.00								
7. Profitability	0.238	0.153	0.05	0.21	0.02	-0.21	0.02	-0.05	1.00							
8. Leverage	0.565	0.184	-0.11	-0.20	-0.20	0.11	0.01	0.28	-0.24	1.00						
9. Capital expenditures	0.039	0.036	0.05	0.08	0.13	0.04	0.05	0.09	0.12	-0.04	1.00					
10. R&D	0.015	0.020	0.05	0.09	0.18	0.05	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	-0.02	-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	0.05	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	0.31	-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	-0.00	0.11	0.15	-0.01	0.04	-0.03	0.03	-0.01	0.03	0.03	1.00

Panel B: Mean difference tests					
	Stock option adopters	Stock option nonadopters	Mean difference	SE	<i>p value</i>
	(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

Table 2. Effect of stock option pay on EM: Moderating role of foreign ownership, domestic ownership, and affiliated outside directors

	(1)	(2)	(3)	(4)	(5)
Hypothesis	H1	H2	H3a	H3b	All
Dep. var.	EM	EM	EM	EM	EM
Constant	-0.028 (0.000)	-0.023 (0.000)	-0.032 (0.000)	-0.030 (0.000)	-0.033 (0.000)
Controls:					
EM _{<i>i,t-1</i>}	-0.011 (0.001)	-0.012 (0.000)	-0.013 (0.000)	-0.011 (0.000)	-0.013 (0.000)
Size _{<i>i,t-1</i>}	0.001 (0.026)	0.001 (0.130)	0.001 (0.001)	0.001 (0.008)	0.002 (0.000)
Profitability _{<i>i,t-1</i>}	0.024 (0.000)	0.024 (0.000)	0.023 (0.000)	0.021 (0.000)	0.023 (0.000)
Leverage _{<i>i,t-1</i>}	-0.015 (0.000)	-0.009 (0.000)	-0.017 (0.000)	-0.013 (0.000)	-0.011 (0.000)
Capital expenditures _{<i>i,t-1</i>}	0.107 (0.000)	0.111 (0.000)	0.104 (0.000)	0.107 (0.000)	0.109 (0.000)
R&D _{<i>i,t-1</i>}	0.057 (0.007)	0.075 (0.000)	0.076 (0.000)	0.036 (0.064)	0.059 (0.000)
Sales growth _{<i>i,t-1</i>}	0.015 (0.000)	0.017 (0.000)	0.016 (0.000)	0.016 (0.000)	0.017 (0.000)
Exports _{<i>i,t-1</i>}	0.009 (0.000)	0.007 (0.000)	0.008 (0.001)	0.009 (0.000)	0.005 (0.000)
Age _{<i>i,t-1</i>}	-0.001 (0.117)	-0.001 (0.002)	-0.000 (0.990)	0.000 (0.726)	-0.000 (0.778)
Board reform _{<i>i,t-1</i>}	-0.000 (0.808)	-0.001 (0.306)	0.000 (0.557)	0.001 (0.290)	0.000 (0.385)
Foreign ownership _{<i>i,t-1</i>}	0.027 (0.000)	0.019 (0.000)	0.024 (0.000)	0.029 (0.000)	0.013 (0.000)
Domestic ownership _{<i>i,t-1</i>}	0.002 (0.397)	0.002 (0.356)	0.004 (0.078)	0.000 (0.949)	-0.002 (0.263)
Affiliated directors _{<i>i,t-1</i>}	0.002 (0.365)	0.003 (0.132)	0.004 (0.063)	0.032 (0.000)	0.032 (0.000)
Independent variable and interaction effects:					
Stock options _{<i>i,t-1</i>}	0.006 (0.000)	-0.001 (0.176)	0.011 (0.000)	0.007 (0.000)	0.002 (0.042)
Stock options _{<i>i,t-1</i>} *		0.029 (0.000)			0.034 (0.000)
Foreign ownership _{<i>i,t-1</i>}					
Stock options _{<i>i,t-1</i>} *			-0.015 (0.000)		-0.006 (0.002)
Domestic ownership _{<i>i,t-1</i>}					
Stock options _{<i>i,t-1</i>} *				-0.067 (0.000)	-0.061 (0.000)
Affiliated directors _{<i>i,t-1</i>}					
Specification tests:					
z_1	95.71 (14)	133.04 (15)	138.84 (15)	116.49 (15)	282.98 (17)
m_2	-0.24	-0.28	-0.27	-0.31	-0.37
Hansen	550.67 (527)	592.34 (564)	584.85 (564)	578.79 (564)	639.26 (638)
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 (3) and (4). The information needed to read this table is as follows: (i) p values are in parentheses; (ii) standard errors are robust to heteroskedasticity; (iii) z_1 indicates the Wald test of the joint significance of the reported coefficients, which are 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 the second order using residuals in first differences, which are asymptotically distributed as $N(0,1)$ under the null of no serial correlation; (v) Hansen is a test of the overidentifying restrictions, which are asymptotically distributed as χ^2 under the null of no correlation between the instruments and the error term, degrees of freedom in parentheses; and (vi) all models include time and sector dummies.

Table 3. Effect of executive compensation on EM

	(1)	(2)	(3)	(4)
Hypothesis	H1	H1	H1	H1
Dep. var.	EM	EM	EM	EM
Constant	-0.025 (0.000)	-0.023 (0.000)	0.024 (0.000)	0.026 (0.000)
Controls:				
EM _{<i>i,t-1</i>}	-0.009 (0.005)	-0.010 (0.000)	-0.037 (0.000)	-0.038 (0.000)
Size _{<i>i,t-1</i>}	0.001 (0.059)	0.001 (0.244)	-0.001 (0.209)	-0.001 (0.264)
Profitability _{<i>i,t-1</i>}	0.025 (0.000)	0.024 (0.000)	0.010 (0.004)	0.010 (0.003)
Leverage _{<i>i,t-1</i>}	-0.018 (0.000)	-0.013 (0.000)	-0.037 (0.000)	-0.038 (0.000)
Capital expenditures _{<i>i,t-1</i>}	0.115 (0.000)	0.110 (0.000)	0.110 (0.000)	0.125 (0.000)
R&D _{<i>i,t-1</i>}	0.094 (0.000)	0.075 (0.000)	0.420 (0.000)	0.438 (0.000)
Sales growth _{<i>i,t-1</i>}	0.016 (0.000)	0.016 (0.000)	0.021 (0.000)	0.015 (0.000)
Exports _{<i>i,t-1</i>}	0.011 (0.000)	0.009 (0.000)	-0.002 (0.485)	-0.001 (0.670)
Age _{<i>i,t-1</i>}	-0.001 (0.115)	-0.000 (0.347)	-0.007 (0.000)	-0.008 (0.000)
Board reform _{<i>i,t-1</i>}	-0.001 (0.401)	-0.000 (0.908)	0.000 (0.421)	0.001 (0.339)
Foreign ownership _{<i>i,t-1</i>}	0.022 (0.000)	0.028 (0.000)	0.031 (0.000)	0.032 (0.000)
Domestic ownership _{<i>i,t-1</i>}	-0.000 (0.869)	0.002 (0.445)	0.002 (0.429)	-0.000 (0.891)
Affiliated directors _{<i>i,t-1</i>}	0.001 (0.620)	0.001 (0.643)	0.044 (0.000)	0.049 (0.000)
Independent variables:				
Stock options _{<i>i,t-1</i>}		0.005 (0.000)		0.004 (0.000)
Total compensation _{<i>i,t-1</i>}	0.000 (0.516)	0.000 (0.599)		
Executive bonus _{<i>i,t-1</i>}			0.005 (0.000)	0.005 (0.000)
Specification tests:				
z_1	90.01 (14)	119.94 (15)	211.52 (14)	357.64 (15)
m_2	-0.21	-0.23	-0.70	-0.74
Hansen	528.76 (527)	588.40 (564)	340.80 (526)	340.58 (559)
Firms	856	856	391	391
Observations	6,051	6,051	2,236	2,236

Note: System GMM regression results from estimating Equation (3). For the rest of the information needed to read this table, see Table 2.

Table 4. Effect of stock option pay on EM: Moderating role of foreign ownership, domestic ownership, and affiliated outside directors (*robustness tests*)

Panel A: Alternative EM definition					
	(1)	(2)	(3)	(4)	(5)
Hypothesis	H1	H2	H3a	H3b	All
Dep. var.	EM	EM	EM	EM	EM
Stock options _{<i>i,t-1</i>}	0.008 (0.000)	0.002 (0.109)	0.014 (0.000)	0.008 (0.000)	0.007 (0.000)
Stock options _{<i>i,t-1</i>} *		0.015 (0.007)			0.022 (0.000)
Foreign ownership _{<i>i,t-1</i>}					(0.000)
Stock options _{<i>i,t-1</i>} *			-0.017 (0.000)		-0.013 (0.000)
Domestic ownership _{<i>i,t-1</i>}					(0.000)
Stock options _{<i>i,t-1</i>} *				-0.052 (0.000)	-0.040 (0.000)
Affiliated directors _{<i>i,t-1</i>}					(0.000)
Controls	Yes	Yes	Yes	Yes	Yes
Firms	856	856	856	856	856
Observations	6,051	6,051	6,051	6,051	6,051
Panel B: Alternative stock options measure					
	(1)	(2)	(3)	(4)	(5)
Hypothesis	H1	H2	H3a	H3b	All
Dep. var.	EM	EM	EM	EM	EM
Stock options _{<i>i,t-1</i>}	0.239 (0.000)	0.024 (0.212)	0.556 (0.000)	0.184 (0.000)	0.339 (0.000)
Stock options _{<i>i,t-1</i>} *		0.967 (0.000)			0.862 (0.000)
Foreign ownership _{<i>i,t-1</i>}					(0.000)
Stock options _{<i>i,t-1</i>} *			-0.779 (0.000)		-0.710 (0.000)
Domestic ownership _{<i>i,t-1</i>}					(0.000)
Stock options _{<i>i,t-1</i>} *				-1.835 (0.000)	-0.838 (0.000)
Affiliated directors _{<i>i,t-1</i>}					(0.000)
Controls	Yes	Yes	Yes	Yes	Yes
Firms	768	768	768	768	768
Observations	5,386	5,386	5,386	5,386	5,386
Panel C: Controlling for potential selection bias of foreign ownership					
	(1)	(2)	(3)	(4)	(5)
Hypothesis	H1	H2	H3a	H3b	All
Dep. var.	EM	EM	EM	EM	EM
Stock options _{<i>i,t-1</i>}	0.005 (0.000)	-0.004 (0.000)	0.012 (0.000)	0.006 (0.000)	0.000 (0.675)
Stock options _{<i>i,t-1</i>} *		0.044 (0.000)			0.049 (0.000)
Foreign ownership _{<i>i,t-1</i>}					(0.000)
Stock options _{<i>i,t-1</i>} *			-0.018 (0.000)		-0.007 (0.000)
Domestic ownership _{<i>i,t-1</i>}					(0.000)
Stock options _{<i>i,t-1</i>} *				-0.063 (0.000)	-0.060 (0.000)
Affiliated directors _{<i>i,t-1</i>}					(0.000)
Inverse Mills ratio	-0.007 (0.000)	-0.009 (0.000)	-0.008 (0.000)	-0.007 (0.000)	-0.009 (0.000)
Controls	Yes	Yes	Yes	Yes	Yes
Firms	852	852	852	852	852
Observations	6,020	6,020	6,020	6,020	6,020

Note: System GMM regression results from estimating Equations (3) and (4). For the rest of the information needed to read this table, see Table 2. To save space, only the coefficients of interest are reported; the complete tables, including the estimated coefficients on all control variables and the specification tests, are available from the authors upon request.

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