#### ARTICLE



# Female Leadership and Corporate Acquisitions in Chinese State-Owned Enterprises

Danyang Zhu and Xu-Hong Li

Fudan University, China Corresponding author: Xu-Hong Li (xhli@fudan.edu.cn)

(Received 21 May 2023; accepted 25 March 2024)

#### Abstract

Research on female leadership has documented that female-led firms tend to engage in lower risk-taking activities than male-led firms and attributed it to females' higher propensity for risk aversion. Nevertheless, this claim and its associated findings have been increasingly challenged. In this article, we address the unclear pattern of females' risk preference in leadership by contextualizing the effect of chair gender on corporate acquisitions in the context of state-owned enterprises (SOEs) in China. Drawing on expectancy violation theory, we propose that female chairs are more inclined to take risks when they operate in contexts that encourage female agency. We further explore self-affirmation mechanisms through two moderators: gender stereotype threats and self-efficacy. An analysis of chairs of 1,265 publicly listed SOEs in China from 2008 to 2020 supports predictions that female chairs are more likely than male chairs to engage in firm acquisitions. The effects are amplified under low levels of female executive representation and high levels of political appointments held by female chairs. The study shows that context determines how extensively gender affects risk-taking. It offers new insights into when and why female leaders exhibit higher levels of risk-taking in Chinese SOEs.

#### 摘要

关于女性领导力的以往研究表明,女性领导的企业往往比男性领导的企业实施更少的风险性活动, 这一结果常被归因于女性更高的风险回避倾向。然而,这一主张及其研究结果受到越来越多的研究 挑战。本文研究中国国有企业董事长的性别对公司并购活动的影响,以探索女性高层领导者的风险 倾向。我们基于期望违背理论提出,在女性能动行为被鼓励的情境中,女性董事长比男性董事长更 倾向于做出风险性行为。我们进一步通过性别刻板印象威胁和自我效能两个调节变量来探索自我肯 定机制的作用。对于 2008 年至2020年期间 1265 家中国国有上市公司的数据分析支持了我们的假 设,即董事长为女性的企业比董事长为男性的国有企业实施了更多的并购活动;当高管团队中女性 比例较低以及女性董事长拥有政治任命时,这种效应会进一步增强。本文通过中国国有企业的情境 化研究,展示了情境如何影响领导性别与公司风险决策活动之间的关系,并提供了关于中国国有企 业中女性领导何时以及为何比男性领导表现出更高风险倾向的新见解。

Keywords: acquisitions; Chinese state-owned enterprises; expectancy violation mechanism; female leadership; gender stereotype threat; self-affirmation

关键词:并购;中国国有企业;期望违背机制;女性领导力;性别刻板印象威胁;自我肯定

## Introduction

When women lead firms and hold top CEO positions, firms tend to try fewer mergers and acquisitions (hereafter, acquisitions) (e.g., Chen, Crossland, & Huang, 2016; Huang & Kisgen, 2013), to produce more conservative financial reporting (Ho, Li, Tam, & Zhang, 2015) and more conservative balance sheets (Palvia, Vähämaa, & Vähämaa, 2015). Indeed, a meta-analysis concluded that higher female

© The Author(s), 2025. Published by Cambridge University Press on behalf of International Association for Chinese Management Research. This is an Open Access article, distributed under the terms of the Creative Commons Attribution-NonCommercial licence (http://creativecommons.org/ licenses/by-nc/4.0), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original article is properly cited. The written permission of Cambridge University Press must be obtained prior to any commercial use.

upper-echelon representation is negatively related to strategic risk-taking, as measured by financial leverage, capital expenditures, and stock return volatility (Jeong & Harrison, 2017). The role incongruence perspective (Eagly & Karau, 2002) largely explains that female leaders avoid pursuing risky actions because society expects them to follow communal gender roles, which are incongruent with agentic leadership roles, causing women to fear intense criticism if risky strategies fail (Gupta, Han, Mortal, Silveri, & Turban, 2018; Post, Lokshin, & Boone, 2022).

In contrast, some argue that female executives have higher risk tolerance levels. For example, a survey-based study demonstrated that in Sweden, female executives are more risk-taking than their male counterparts (Adams & Funk, 2012). A study using a sample of Chinese firms found that female-led rather than male-led firms demonstrated higher levels of corporate risk-taking (Farag & Mallin, 2018). Those mixed findings triggered calls to specify research contexts that may influence gendered behavioral outcomes (Jeong & Harrison, 2017; Mah, Kolev, McNamara, Pan, & Devers, 2023). For instance, with the findings that scrutiny influences leader cognition and moderates the relationship between CEO gender and corporate acquisitions, Gamache, Devers, Klein, and Hannigan (2023: 23) encouraged 'considering additional contexts that may differentially shape male and female CEOs' information processing and their decisions and outcomes' (Gamache et al., 2023; Jeong & Harrison, 2017).

Thus, role incongruence theory predominantly asserts that females avoid risky activities because of gender bias against women. However, the theory fails to explain the mixed findings about female leadership. As an alternative theoretical mechanism, we introduce the expectancy violation theory (Jussim, Coleman, & Lerch, 1987) to consider a novel theoretical context. This theory posits that in certain circumstances, females may be rewarded rather than punished for violating social gender role expectations, forming anticipated female agentic advantages. A female agentic advantage refers to the gender premium whereby female leaders are rewarded favorable evaluations for displaying male-typed agentic traits (Ma, Rosette, & Koval, 2022). While a growing body of research acknowledges female agentic advantage elicited by expectancy violation mechanism (e.g., Lanaj & Hollenbeck, 2015; Schaumberg & Flynn, 2017), few have explored how agentic advantage affects firm activities, prompting the research question: What circumstances might encourage female leaders to engage in the risk-taking actions that are typically attributed to males?

We address the question by examining corporate acquisitions, a risk-taking activity that is mostly decided by firm chairs, in the context of Chinese state-owned enterprises (SOEs), where the government is the major stakeholder and evaluator of top firm executives. According to expectancy violation theory, we argue that acquisitions are viewed as typical male-typed risk-taking activities (Eagly & Wood, 1999), but female chairs might be encouraged to engage in such masculine activity when they receive positive governmental evaluations that elicit female agentic advantages.

To understand the boundary conditions of expectation violation predictions, we introduce female executive representation and political appointments held by female chairs as moderating the relationship. The psychology literature acknowledges that when self-integrity is threatened, individuals seek to protect or restore their self-regard or self-worth (Steele, 1988). We propose that self-affirmation depends on both external situational cues and internal personal attributes. Lower female representation in executives is recognized as an external circumstance that creates higher stereotype threats toward female chairs; the higher an individual encounters threats, the stronger a desire to react against them (Steele, 1988). Political appointments, often viewed as an official recognition or reward for executives in Chinese companies, bolster female chairs' self-efficacy to tackle the negative gender stereotype (Bandura, 1986); the higher an individual's self-efficacy, the stronger a desire to take action to advance one's affirmation (Steele, 1988). We argue that female chairs react to the two circumstances with strong motivations to disconfirm gender stereotypes, thus pursue acquisition activities. We find support for our hypotheses in a sample of listed Chinese SOEs from 2008 to 2020. The results remain robust after using the propensity score matching (PSM) approach and difference-in-differences (DID) analysis on a subsample of firms experiencing exogenous chair successions.

Our study contributes to the female leadership literature by joining increasing challenges to the role incongruence perspective (Gamache et al., 2023; Jeong & Harrison, 2017) explaining the negative

relationship. We introduce the expectancy violation theory as an alternative lens to explain the positive effects of female leadership on firm risk-taking activities. By contextualizing Chinese SOEs, our study complements an opposite view of gender differences in risk-taking demonstrated in previous studies (Gamache et al., 2023; Jeong & Harrison, 2017). Additionally, we contribute to the literature on SOEs (Bruton, Peng, Ahlstrom, Stan, & Xu, 2015), which needs delicate theoretical and empirical research because SOEs are often compared to non-SOEs without considering that SOEs are subtly heterogeneous (e.g., Ghorbani, Xie, Jin, & Wang, 2023; Li, Li & Wang, 2019). We enhance the empirical research and offer a more nuanced understanding of a unique yet increasingly important context by examining how gender affects acquisitions. Finally, we contribute to the acquisition literature (Haleblian, Devers, McNamara, Carpenter, & Davison, 2009) by revealing that female executives use acquisitions as a means for confronting gender stereotypes.

### **Theoretical Background**

#### Leader Gender and Firm Risk-Taking

Aligned with the pervasive role incongruence perspective, female leaders have been associated with low levels of firm risk-taking (Eagly & Karau, 2002) because they are more harshly evaluated and scrutinized for acting incongruently with gender role expectations. That is, males are expected to display agentic traits (e.g., assertiveness, dominance, and confidence), while females are expected to display communal traits (e.g., warmth, likeability, and selflessness). Female CEOs tend to draw investor skepticism upon their appointments (Lee & James, 2007), earn less than male CEOs (Wang, Markóczy, Sun, & Peng, 2019), and tend to be blamed for poor performance and strategic failures (Gupta et al., 2018; Park & Westphal, 2013). Aware of these gender biases, female leaders tend to take more conservative strategic actions to avoid potential negative career outcomes associated with underperformance (Post et al., 2022). For instance, they may avoid strategic change (Sidhu, Feng, Volberda, & Van Den Bosch, 2021) and acquisitions (Post et al., 2022).

The role incongruence perspective is important for explaining gender differences in firm risk-taking activities, but it fails to fully explain emerging mixed findings. Expectancy violation theory (Jussim et al., 1987) offers an alternative lens, suggesting that female leaders may have gender advantages for risk-taking behaviors in certain circumstances. That is, when females show agentic behaviors that are incongruent with stereotyped gender-based expectations, they may elicit more favorable evaluations because they exceed expectations (Jussim et al., 1987). In Chinese public companies, for example, female CEOs have mitigated the compensation gap by taking risks (Wang et al., 2019). Women leaders who possess female agentic advantage may show risk behaviors to counteract gender-based bias and garner positive evaluations. Indeed, some top-level women selectively display overly assertiveness and aggressiveness to be considered successful leaders (Trzebiatowski, McCluney, & Hernandez, 2023; Vial, Napier, & Brescoll, 2016).

In summary, expectancy violation theory diverges from role incongruence theory in predicting female agentic disadvantages and advantages, leading to contrasting predictions about leader gender influences on firm risk-taking. Which theory serves as an explanatory framework for the behavioral strategies of female leaders hinges on the evaluators' relationship with the firm's leadership (Joshi, Oh, & DesJardine, 2024) that shapes their motivation to observe and evaluate female leaders. In a context where evaluators lack the desire to notice female executives, they often lean toward gender-biased negative stereotypes (Neuberg & Fiske, 1987), consistent with the widely accepted role incongruence mechanism.

In contrast, when evaluators have the desire to notice female executives, but are at a remote distance and close observation is unfeasible, evaluators use availability heuristics to process vivid information in making decisions (Tversky & Kahneman, 1973). They might use behaviors that violate gender stereotypes (Macrae, Bodenhausen, & Milne, 1995) as a type of vivid information for assessing the capabilities of female leaders. Such contexts are more likely to trigger the expectancy violation mechanism, generate positive and favorable evaluations of counter-stereotypical leadership behaviors (Jussim et al., 1987), and convey female agentic advantage.

#### Acquisitions as Firm Risk-Taking Activities in Chinese SOEs

In a context characterized by female agentic advantage, remote external stakeholders are likely to favorably evaluate and reinforce risk-taking behaviors in female leaders. Female-led Chinese SOEs provide such a context in which women gain agentic advantage through counter-stereotypical behaviors. The Chinese government is aware that women are more underrepresented in the upper echelons of SOEs than in non-SOEs (Zhang, 2012). In response, the government is promoting gender diversity according to the 'Outline for Women's Development in China (2011–2020)'. For instance, all governmental levels and branches must include at least one female leader. Driven by the rarity of female leaders and by goals for gender diversity, the government pays special attention to incumbent female leaders.

Although the Chinese government or its State-owned Assets Supervision and Administrative Commission (SASAC) is the primary stakeholder and evaluator of SOEs, they lack access to detailed information about SOEs and their executives. To counter the remoteness and inability to closely observe firm executives, they may rely on heuristically vivid information to judge executive behaviors (Tversky & Kahneman, 1973). Corporate acquisitions, a risk-taking and counter-stereotypical behavior for female firm leaders, are such a type of information. When acquisitions are considered favorable activities, governmental authorities will positively evaluate female leaders. The expectancy violation mechanism then elicits agentic advantage.

In Chinese SOEs, female leaders are more likely to be rewarded rather than penalized for risk-taking acquisitions. First, the Chinese government desires, encourages, expects, and positively evaluates acquisitions as a primary means for expanding and reforming SOEs. Since the SASAC was established in 2003, the Chinese government has actively encouraged market-oriented practices, most notably mergers and acquisitions, to foster globally competitive SOEs (Hassard, Morris, Sheehan, & Yuxin, 2010).

Second, acquisitions are a risky strategic activity that aligns with leadership agency and leadership role expectations (Chng & Wang, 2016). While acquisitions may render the firm leader at high risk of being punished for potential economic loss (Haleblian et al., 2009), SOEs are regulated to pursue social and political goals, such as social stability (Wang & Luo, 2019) rather than to purely focus on achieving market success through acquisitions (Ghorbani et al., 2023). For example, some SOEs initiate acquisitions to acquire strategic assets and provide employment, which leads to governmental praise (Buckley, Yu, Liu, Munjal, & Tao, 2016; Wang & Luo, 2019).

In summary, governmental agencies tend to favor and positively evaluate female leaders who undertake acquisition activities. Thus, counter-stereotypical acquisition behaviors may elicit positive agentic advantages rather than unfavorable role incongruence evaluations (Jussim et al., 1987).

#### Hypotheses Development

## Leader Gender and Corporate Acquisitions in Chinese SOEs

In Chinese SOEs, female leaders may seek positive governmental evaluations by leveraging agentic advantage. First, through SASAC, the government is the ultimate principal of all Chinese SOEs, and thus a predominant stakeholder and evaluator of SOE CEOs, chairs, or executives. The agents can increase career prospects (Fan, Lau, & Young, 2007) through promotions to parent firms, larger-sized or better SOEs, or through political promotions to full-time or part-time government sector positions (Cao, Lemmon, Pan, Qian, & Tian, 2019). In general, Chinese SOE executive career advancements depend on governmental appointments that will be more lucrative than the inadequate monetary incentives derived from the national compensation policy, which has long been regulated and scrutinized to suppress pay inequality (Raynard, Lu, & Jing, 2020). Lacking pay-for-performance (Conyon & He, 2011; Ke, Rui, &Yu, 2012) and receiving lower-than-market monetary compensation, SOE executives seek governmental recognition or political promotion that brings advanced social status, prestige, and power. Thus, the government is the most critical evaluator for SOE executives.

Given that the governmental agency has such a pivotal evaluative role, SOE executives will actively anticipate and comply with their evaluation preferences (Wang & Luo, 2019). However, compared with male executives, females encounter more gender-based obstacles. They are less represented in SOEs than they are in non-SOEs (Zhang, 2012), and face higher challenges in breaking the glass ceiling

(Kuhn & Shen, 2013; Leung, 2002). Male dominance in the bureaucratic system further exacerbates sex discrimination (Leung, 2002). To counter disadvantages, female executives in SOEs utilize agentic advantage through government-desired counter-stereotypical acquisitions.

By demonstrating counter-stereotypical traits and violating social role expectations, female leaders convey heuristic clues indicating competence and reliability beyond initial governmental expectations. In contrast, male leaders fail to acquire credit for equivalent acquisition activities because risky acquisitions provide information congruent with male stereotypes. Consequently, remote and external government stakeholders are more likely to reinforce agentic behaviors of female rather than male leaders through favorable evaluations. Therefore, female leaders are likely to engage in acquisitions, leading to our first hypothesis:

*Hypothesis 1 (H1): In SOEs, female leaders are more likely than male leaders to undertake acquisition activities.* 

#### Contingency Conditions of Expectancy Violation Theory

We have argued that anticipated governmental rewards motivate SOE female leaders to demonstrate counter-stereotypical traits that violate social expectations for women, mainly by engaging in acquisitions. Although female leaders generally face gender stereotype threats, they vary in the intensity of their motivations to tackle threats. Self-affirmation theory (Steele, 1988) explains that individuals are more strongly motivated to disprove stereotypes when situational cues imply a higher threat toward their self-regard or self-worth (Steele, 1988) and when they have higher levels of efficacy (Yeager et al., 2014).

In this section, we thus identify two sources of self-affirmation, one external situational cue and one internal self-efficacy attribute, and explore how they may influence how leader gender relates to firm acquisitions in Chinese SOEs. Specifically, we examine the moderating effects of female executive representation regarded as gender stereotype threats and political appointments served as self-efficacy-enhancing governmental recognition.

#### Moderating effect of female executive representation

When women are in the minority, their presence tends to be more salient and subject to gender stereotypes (Kanter, 1977). Being in the minority but having a salient role is a situational cue that poses stereotype threats to identity (Richman, VanDellen, & Wood, 2011) and a desire to restore or protect the individual's self-regard or self-worth (Steele, 1988). A supportive empirical study showed that when top management teams (TMTs) have fewer females, the workplace is more male-dominated and the gender-based pay gap is increased (Castellaneta, Conti, & Kacperczyk, 2020). Female leaders realize that they must work harder to counter the negative gender stereotypes and secure their careers. In other words, female executives who are acutely aware of gender stereotype threats adopt reactive career strategies to deal with widespread gender bias (Post et al., 2022).

Chinese SOEs are a typical microcosm of Chinese society featuring *guanxi* culture (Chen, Chen, & Huang, 2013)<sup>1</sup> in which career advancement depends on job-related competence and *guanxi* strategies (Leung, 2002). Women usually encounter obstacles in building male-dominated social networks (Abraham, 2020), even more so in Chinese SOEs where men dominate upper management and official government evaluator positions. Therefore, female executives in SOEs confront inherent gender-related obstacles in seeking a *guanxi* approach and fostering strong networks. Thus, most tend to demonstrate their competence by working hard and achieving tangible results (Liu, 2013), particularly by using acquisition for achieving recognition (Haleblian et al., 2009).

Therefore, we argue that a smaller proportion of female incumbents in upper echelons activates the gender stereotype threat, highlighting the threat to female leaders' gender identity and causing great insecurity and suffering. As responsive career strategies, female leaders will pursue counterstereotypical behaviors as a type of self- affirmation actions to tackle the gender biases, unsafety, and negative feelings, thereby protecting their self-worth (Steele, 1988). The more salient the gender stereotype threat, the more likely that female leaders will undertake acquisition activities to generate female agentic advantage through favorable government evaluations. Consequently, when an executive team has low female representation, the gender effect on SOE acquisitions proposed in Hypothesis 1 will be stronger.

Hypothesis 2 (H2): Female leaders will be more strongly and positively associated with acquisition activities when an executive team has low female representation.

## Moderating effect of female leaders' political appointment

Major governmental stakeholders convey favorable evaluations to SOE executives by awarding them part-time roles in prestigious political councils or state organs (Li & Liang, 2015), as part-time delegates to the People's Congress (PC; China's legislative body) or to the Chinese People's Political Consultative Conference (CPPCC; China's political consultative body) (Li & Liang, 2015; Zhang, Marquis, & Qiao, 2016). Corporate leaders use the political appointments to communicate with and advise the government on important policies (Li & Liang, 2015). When female leaders earn political appointments, they are likely to be more motivated to disconfirm stereotypes because the positive governmental feedback boosts their self-efficacy and confidence about meeting challenges associated with gender stereotypes (Liu, Liu, Wang, & Zhang, 2021).

The government grants the business sector a strict quota for determining political appointments, which corporate leaders must earn through substantial effort and achievements. Therefore, political appointments indicate positive governmental evaluations of firm leadership (Cao et al., 2019). Such positive feedback strongly motivates female leaders to disconfirm negative stereotypes and perform well (e.g., Yeager et al., 2014). Their newfound self-efficacy generates cognitive dissonance (Festinger, 1957) that drives them to challenge negative stereotypes (Schmader, Johns, & Forbes, 2008), and to feel more confident about proactively displaying counter-stereotypical behaviors, to restore their self-regards. We thus expect female leaders who have political appointments to show a stronger gender effect on SOE acquisitions.

*Hypothesis 3 (H3): Female leaders who have political appointments will be more likely to undertake acquisition activities.* 

## **Methods**

## Sample and Data

Our sample includes all SOEs listed on Shanghai and Shenzhen stock exchanges in China from 2008 through 2020. We collected data from the China Stock Market and Accounting Research (CSMAR) database, which has been widely used in research on Chinese publicly listed companies. It provides credible information about companies' financial and background statistics, such as chair characteristics (e.g., Li & Lu, 2020; Zhang et al., 2016). After excluding (1) 490 firm-year observations in the finance industry (Chen, Luo, Tang, & Tong, 2023) and (2) 2028 firm-year observations with missing data, our final sample included 11,112 firm-year observations with 1,265 SOEs. Two-sample *t-tests* revealed that the final sample had no significant differences from the excluded sample in critical attributes, including firm size and performance. We winsorized all the financial data at the 1% and 99% levels to minimize potential outlier influences.

Given that chairs are the most potent decision-makers and ultimate leaders in Chinese firms (Li & Liang, 2015; Zhang et al., 2016), we addressed the board chair in the SOEs. Data on the chair's political appointment were manually coded from chairs' biographical descriptions provided by CSMAR and company websites. We also crosschecked the names on the official websites of the two legislative organizations – PC and PPCC. Firm acquisition information was obtained from CSMAR's China Listed Firms' Merger & Acquisition, Asset Restructuring Research Database (Schweizer, Walker, & Zhang, 2019).

## **Dependent Variables**

#### Acquisition activities

Following prior research (Shi, Zhang, & Hoskisson, 2017), we measured acquisition activities as the annual number of acquisitions, operationalized as the number of acquisitions announced during a

year, and coded 0 for no acquisition announcements. In the robustness check, to ensure that the sample included only meaningful acquisitions influencing political evaluations of chairs, we limited the sample to significant acquisitions with transaction values over 1 million yuan (Seo, Gamache, Devers, & Carpenter, 2015). The results remain unchanged.

#### Independent and Moderating Variables

#### Chair gender

Chair gender, the independent variable, was dichotomous, coded 1 for females and 0 for males.

### Female executive representation

We measured *female executive representation* as the ratio of the number of female members (excluding board chair) to the total number of firm executives (including board directors, top management team, and supervisors) in a year. From female chairs' perspectives, lower numbers would indicate increased situational stereotype threat.

#### Chair political appointment

Following the political connection literature (e.g., Zhang et al., 2016), we measured political appointments by whether chairs served as part-time delegates to the National People's Congress (PC) or the Chinese People's Political Consultative Conference (PPCC), the two important political councils in China (Cao et al., 2019; Li & Liang, 2015; Zhang et al., 2016), which have five hierarchical levels, from township to national. Higher hierarchy is associated with higher political status, so we coded political appointment as a continuous variable by considering hierarchical levels. Thus, the evaluation ranged from 0 to 5 for each chair, where 0 indicates no political appointment.

#### **Control Variables**

We controlled for several firm and chair characteristics. We included a comprehensive list of control variables that may affect corporate acquisitions as documented by prior studies. At the firm level, we controlled for *firm size* (log of total revenue), *leverage* (ratio of total debt to total assets), *board size* (log of total number of board directors), and *board independence* (the proportion of independent directors). Firm performance was controlled by including two variables: accounting performance (return on assets, *ROA*, calculated as the ratio of net income to total assets) and market performance (*Tobin's Q*, calculated as the ratio of total market capitalization to total assets). Administrative hierarchical distance from the central government influences whether chairs are willing to climb the political ladder (Hu & Xu, 2022). Therefore, we controlled for administrative hierarchical distance by *state ownership* (the percentage of shares owned by the largest shareholder) and *monitoring government* (a dummy variable coded 1 when the central government is the largest shareholder and 0 for local government) (Wang, Wijen, & Heugens, 2018).

Regarding chair-level characteristics, we controlled for chairs' bargaining power by including *chair ownership* (the proportion of chair-owned shares), *chair tenure*, and *chair duality* (a dummy variable coded 1 when a chair is also CEO). Compensation has been shown to motivate leaders to acquire (Seo et al., 2015), so we include *chair compensation* (log of cash compensation). The practice is consistent with all executive compensation studies in China because most Chinese firms lack long-term incentive plans (Wang et al., 2019). In terms of education, SOE executives who have *PhD degrees* are more likely to be politically promoted (Yang, Wang, & Nie, 2013). We therefore included a dummy variable for a *PhD degree* (coded 1 for a doctoral degree). We also controlled for *chair age* and *average board age* to account for potential decreases in risk-seeking with age. Finally, Chinese provinces vary in terms of monitoring capacity and governmental pressure, so we included *fixed province effects*. We also included *fixed industry effects* and *fixed year effects* in all models.

## Results

We used negative binomial regression models for hypotheses testing because the dependent variable was a count with over-dispersion. Our results were robust to use Poisson regressions. In addition, we lagged our independent, moderating, and control variables by one year to minimize the possibility of reverse causality.

Table 1 presents the descriptive statistics and the Pearson correlations of the variables used in the regression models. Female chairs account for 3.4% of the sample. *Chair gender* is positively and significantly correlated with *acquisition* activities (corr. = 0.04, p < 0.001), implying that SOEs with female chairs announce more acquisitions on average. This correlation provides preliminary evidence. To detect multicollinearity concerns, we ran ordinary least squares (OLS) regressions to calculate each model's variance inflation factor (VIF). The highest VIF value is 2.89, which is under 10, but multicollinearity is still possible because *chair gender* has a 0.91 correlation and interaction with *female executive representation* (p < 0.001). Following executive gender studies (Gupta, Mortal, Chakrabarty, Guo, & Turban, 2020), we dichotomized *female executive representation* such that the highest quintile is considered 'high' and the rest are considered 'low'. Following Kalnins's (2008) recommendations about detecting and mitigating multicollinearity concerns, we reported interaction terms in the correlation table. As presented in Table 1, after the moderator was dichotomized, the highest correlation was reduced to 0.70. Most correlations are under 0.4, indicating unlikely multicollinearity.

Table 2 reports the negative binomial regression results for the effect of chair gender on corporate acquisitions. Model 1 includes *high female executive representation, chair political appointment,* and all control variables. The coefficient of *high female executive representation* was insignificant ( $\beta = -0.062$ , p = 0.155), but results for control variables were generally consistent with the literature (Chen et al., 2016). Model 2 of Table 2 includes the independent variable, *chair gender*, which was positively significant in predicting *acquisition activities* ( $\beta = 0.200$ , p = 0.030), suggesting that female rather than male SOE chairs engage in more acquisitions, supporting H1. In terms of economic magnitude, companies with female rather than male chairs announced 22% more acquisitions.<sup>2</sup>

Model 3 of Table 2 tests the moderating H2, which suggests that the gender effect in acquisition proposed in H1 is stronger under lower female executive representation. In Model 3, we included the interaction of *chair gender* and *high female executive representation* and found a negative and marginally significant coefficient of this interaction term ( $\beta = -0.335$ , p = 0.067). To evaluate the magnitude of the moderation effect, we calculated the marginal effects of *chair gender* using the STATA *margins* command, which is 0.131 (p = 0.123) under high female executive representation (1 SD above the mean). The marginal effect was 0.548 (p = 0.024) under low female executive representation (1 SD below the mean), indicating that female-led companies had 73% (=exp (0.548)-1) more acquisitions than male-led companies. Figure 1 plots the results of the two-way interaction (using the STATA *marginsplot* command). Figure 1(a) illustrates that under low levels of female executive representation, female chairs engaged in more acquisitions than male chairs did. However, the pattern reversed under high female executive representation. Moreover, the slope was -2.126 (p = 0.069) for female chairs and -0.013 (p = 0.930) for male chairs. The two slopes are significantly different (p = 0.073), suggesting a significant interaction. Taken together, the results support H2.

Model 4 of Table 2 tests H3 predicting that the gender effect in acquisition proposed in H1 is stronger among chairs with political appointment. Model 4 introduces the interaction between *chair gender* and *chair political appointment*. This interaction term had a positive and significant coefficient ( $\beta =$ 0.107, p = 0.017). Figure 1(b) shows that chair political appointments had a moderating effect. Specifically, under increased chair political appointment, female rather than male chairs showed a more pronounced pattern of acquisitions. When chair political appointment was 0, chair gender had a 0.022 marginal effect on the number of acquisitions (p = 0.808); however, when chair political appointment was 5, the marginal effect was 0.601 (p = 0.017) indicating SOEs with female chairs announced 82% (=exp (0.601)-1) more acquisitions than those with male chairs. Slope tests showed that the simple slope was 0.102 (p = 0.019) for female chairs and -0.000 (p = 0.993) for male chairs, a significant difference (p = 0.020). Taken together, the results support H3.

## Additional Analyses and Robustness Check

We conducted several additional analyses to further evaluate the robustness of our findings.

## Table 1. Descriptive statistics and correlation

		Mean	S.D.	1	2	3	4	5	6	7	8	9
1	Acquisition activities	0.81	1.66									
2	Chair gender	0.03	0.18	0.04								
3	High female executive representation	0.21	0.40	-0.02	0.13							
4	Chair political appointment	1.08	1.82	0.04	0.03	0.01						
5	High female executive representation × Chair gender	0.02	0.13	-0.00	0.70	0.26	-0.01					
6	Chair political appointment × Chair gender	0.05	0.43	0.07	0.57	0.03	0.18	0.26				
7	Firm size	21.95	1.54	0.12	-0.03	-0.13	0.05	-0.04	0.01			
8	Leverage	0.51	0.20	0.12	-0.01	-0.04	-0.02	-0.00	0.02	0.35		
9	Board size	2.21	0.20	0.02	-0.03	-0.09	0.10	-0.04	0.00	0.16	0.05	
10	Board independence	0.37	0.06	0.02	-0.01	0.01	0.01	-0.00	-0.01	0.14	0.06	-0.36
11	ROA	0.03	0.06	0.04	0.02	-0.03	0.08	-0.00	0.01	0.12	-0.40	0.04
12	Tobin's Q	1.81	1.14	-0.09	-0.01	0.06	-0.04	0.01	-0.02	-0.42	-0.27	-0.11
13	State ownership	0.39	0.15	0.02	-0.01	-0.07	0.01	-0.01	-0.02	0.25	-0.01	-0.02
14	Monitoring government	0.05	0.22	-0.03	-0.02	-0.03	-0.02	-0.01	-0.02	-0.02	-0.06	0.01
15	Chair ownership	0.00	0.01	-0.01	-0.02	0.06	0.02	-0.01	-0.01	-0.05	-0.06	-0.03
16	Chair tenure	3.84	3.39	-0.00	-0.01	0.01	0.10	-0.02	0.03	0.06	0.02	0.04
17	Chair duality	0.10	0.30	0.00	0.02	0.07	0.01	0.05	0.03	-0.03	0.01	-0.06
18	Chair compensation	6.93	6.59	0.01	0.02	0.05	0.01	0.02	0.05	-0.02	0.03	-0.04
19	PhD degree	0.08	0.28	-0.01	-0.02	-0.05	0.08	-0.02	-0.01	0.10	-0.02	0.02
20	Chair age	52.75	5.55	-0.01	-0.03	-0.04	0.13	-0.06	0.01	0.21	-0.05	0.03
21	Average age of the board	51.74	3.45	-0.03	-0.04	-0.11	0.07	-0.02	-0.00	0.39	0.01	0.02

9

(Continued)

## Table 1. (Continued.)

		10	11	12	13	14	15	16	17	18	19	20
11	ROA	-0.02										
12	Tobin's Q	-0.02	0.10									
13	State ownership	0.09	0.14	-0.14								
14	Monitoring government	-0.03	0.01	0.05	0.03							
15	Chair ownership	-0.01	0.02	0.04	-0.10	-0.01						
16	Chair tenure	-0.01	0.07	-0.02	-0.11	-0.04	0.11					
17	Chair duality	0.03	-0.02	0.00	-0.08	-0.01	0.04	0.03				
18	Chair compensation	0.03	0.04	-0.06	-0.15	-0.04	0.10	0.17	0.26			
19	PhD degree	0.04	0.01	-0.02	0.01	0.00	0.06	0.00	-0.01	-0.03		
20	Chair age	0.01	0.11	-0.06	0.05	-0.01	0.08	0.32	-0.06	0.02	0.02	
21	Average age of the board	0.19	0.08	-0.13	0.17	0.03	-0.02	0.12	-0.01	-0.01	0.09	0.43

*Notes*: N = 11,112; Correlation coefficients are bold where p < 0.05.

Table 2. Negative binomial regressions predicting acquisition activities

	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	-2.380***	-2.397***	-2.395***	-2.365***	-2.369***
	(0.456)	(0.457)	(0.456)	(0.456)	(0.456)
Firm size <sub>t-1</sub>	0.177***	0.176***	0.176***	0.175***	0.175***
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Leverage <sub>t-1</sub>	0.335**	0.339**	0.342**	0.333**	0.336**
	(0.119)	(0.119)	(0.119)	(0.119)	(0.119)
Board size <sub>t-1</sub>	0.011	0.014	0.015	0.017	0.017
	(0.099)	(0.099)	(0.099)	(0.099)	(0.099)
Board independence <sub>t-1</sub>	0.496	0.525	0.517	0.533	0.526
	(0.351)	(0.352)	(0.351)	(0.351)	(0.351)
ROA <sub>t-1</sub>	2.316***	2.320***	2.318***	2.333***	2.329***
	(0.443)	(0.442)	(0.443)	(0.443)	(0.443)
Tobin's Q <sub>t-1</sub>	-0.045*	-0.045*	-0.044*	-0.046*	-0.045*
	(0.022)	(0.022)	(0.021)	(0.021)	(0.021)
State ownership <sub>t-1</sub>	-0.526***	-0.528***	-0.525***	-0.519***	-0.518***
	(0.126)	(0.126)	(0.126)	(0.127)	(0.127)
Monitoring government <sub>t-1</sub>	-0.026	-0.026	-0.028	-0.022	-0.024
	(0.088)	(0.088)	(0.087)	(0.088)	(0.087)
Chair ownership <sub>t-1</sub>	2.622*	2.693*	2.671*	2.725*	2.705*
	(1.227)	(1.226)	(1.227)	(1.226)	(1.227)
Chair tenure <sub>t-1</sub>	0.000	0.000	0.001	0.000	0.001
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Chair duality <sub>t-1</sub>	0.027	0.028	0.032	0.030	0.032
	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)
Chair compensation <sub>t-1</sub>	-0.003	-0.004	-0.004	-0.004	-0.004
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
PhD degree <sub>t-1</sub>	-0.062	-0.059	-0.057	-0.054	-0.053
	(0.066)	(0.066)	(0.066)	(0.066)	(0.066)
Chair age <sub>t-1</sub>	-0.002	-0.002	-0.002	-0.002	-0.002
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Average age of the $board_{t-1}$	-0.031***	-0.031***	-0.031***	-0.031***	-0.031***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
High female executive representation $_{t-1}$	-0.062	-0.071	-0.050	-0.066	-0.052
	(0.043)	(0.044)	(0.045)	(0.044)	(0.045)
Chair political appointment $_{t-1}$	0.007	0.005	0.004	-0.000	-0.000
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Chair gender <sub>t-1</sub>		0.200* (0.092)	0.344** (0.126)	0.027 (0.111)	0.152 (0.152)
High female executive representation × Chair gender <sub>t-1</sub>			-0.335 <sup>†</sup>		-0.244
			(0.183)	0.107*	(0.186)
Chair political appointment × Chair gender <sub>t-1</sub>				0.107*	0.095*
Fixed industry effect	Yes	Yes	Yes	Yes	Yes

(Continued)

## 12 D. Zhu and X.-H. Li

#### Table 2. (Continued.)

	Model 1	Model 2	Model 3	Model 4	Model 5
Fixed year effect	Yes	Yes	Yes	Yes	Yes
Fixed province effect	Yes	Yes	Yes	Yes	Yes
Ν	11,112	11,112	11,112	11,112	11,112
Pseudo R <sup>2</sup>	0.041	0.041	0.041	0.041	0.041

Notes: robust standard errors in parentheses;  $^{\dagger}p < 0.10$ ,  $^{\star}p < 0.05$ ,  $^{\star\star}p < 0.01$ ,  $^{\star\star\star}p < 0.001$ ; All tests are two-tailed.



Figure 1. Interaction plots (a) Moderating effect of female executive representation (b) Moderating effect of chair political appointment

## Endogeneity concern: PSM analysis

Selection bias may determine how chair gender affects firm acquisitions (Francis, Hasan, Park, & Wu, 2015). Specifically, firms deliberately hire female chairs, so some factors may correlate with firm acquisition activities (our dependent variable) and with hiring a female chair (our independent variable). To mitigate endogeneity concerns, we followed others (e.g., Gupta et al., 2020) and used PSM analysis to create a matched sample of firms with female and male chairs respectively. By matching treated (firms with female chairs) and control groups (firms with male chairs) on the estimated probability of being treated, PSM helps reduce selection bias because female-led firms align with male-led firms on observable covariates. First, we conducted a logistic regression for each year to estimate the probability of having a female chair by including the two moderators and all control variables as covariates (industry

and province fixed effects included). We matched 377 female-chair firm-year observations with 377 male-chair firm-year observations without replacement. Table 3 presents the results of balance tests of the treated and the control groups for the matched and unmatched samples. For the unmatched sample, the t-statistic showed a significant difference between the treated and the control group for several critical covariates, such as firm size and board size. However, a good balance was achieved through the matching process, as the *t*-statistic showed that the mean of all covariates between the treated and the control group exhibited insignificant differences in the matched sample.

We then used the propensity-matched sample to examine how chair gender affects firm acquisition activities and the moderating effects. Table 4 presents the results of negative binomial regressions based on the propensity score-matched sample. Consistent with the results from the total sample, a positive and significant coefficient remains for *chair gender* in Model 2 ( $\beta = 0.308$ , p = 0.007). Specifically, female chairs engaged in 36% (=exp (0.308)-1) more acquisitions than male chairs, further supporting H1. We also found a negative and significant interaction term of *chair gender* and *high female executive representation* in Model 3 of Table 4 ( $\beta = -0.497$ , p = 0.041), indicating a stronger gender effect in firm acquisitions under low female executive representation, supporting H2. Model 4 of Table 4 shows a positive and significant interaction term of *chair gender* and *chair political appointment* ( $\beta = 0.148$ , p = 0.016), suggesting an amplified gender effect in firm acquisitions under higher levels of chair political appointment. Again, results based on propensity score-matched sample supported H3.

## Endogeneity concern: DID analysis

To further alleviate endogeneity concerns, we used chair succession as an event shock and employed the DID approach to examine chair gender effects on corporate acquisitions. First, we identified all chair succession events in Chinese SOEs from 2008 to 2020. Second, using data from the CSMAR's 'CSRC's Enforcement Actions Research Database' (Jia, Ding, Li, & Wu, 2009), we identified chair succession events in which the company had committed misconducts within the two years prior to the succession. Our results remained robust when identifying chair successions based on the presence of misconduct within a one-year window. We precluded succession events that were planned and greatly ensured the exogeneity of these events. Third, we deleted chair succession events in which the outgoing chair or the successor had a tenure shorter than two years because the individual would likely be an interim chair reluctant to engage in long-term strategic actions (Ballinger & Marcel, 2010). Eventually, we had 365 chair succession events during the time frame. Nine of the successions involved a change from a male to a female chair (*male\_female*); 8 involved a change from a female to a a male chair (*male\_female*); 8 involved a change in chair gender.

We conducted a DID analysis to examine how changes in chair gender during succession impacted corporate acquisitions. We generated a dataset of  $1,460 (=365 \times 4)$  observations containing a four-year window for each succession event, with a two-year window for both pre-event and post-event periods. To gather comprehensive data on both dependent and independent variables, we merged the firm-year dataset with the entire sample used for primary hypotheses testing. We dropped 325 observations that had missing variables, leaving a final sample of 1,135 observations for DID analysis. We then constructed the variable *post* to denote the post-event years. In the DID analysis, our primary variables of interest were the interaction term of *male\_female* and *post* and the interaction term of *female\_male* and *post*. If our results were robust, acquisition activities should increase after the succession involving a change from male to female chair (compared to the control group with no gender change after succession), so the coefficient of *male\_female* × *post* should be positive.

Meanwhile, the coefficient of *female\_male × post* should be negative, indicating that acquisition activities should decrease after the succession when a firm chair changes from female to male, compared to the control group. Model 1 of Table 5 shows the results of the DID analysis. The coefficient of *male\_female × post* was positive and significant ( $\beta = 0.538$ , p = 0.012), while the coefficient of *female\_male × post* was insignificant ( $\beta = -0.274$ , p = 0.482). Thus, DID analysis moderately supported H1.

Alternative operationalization of political appointment indicating positive governmental evaluation The Chinese government rewards positively evaluated SOE chairs with political appointments and compensation (Cao et al., 2019), but SOE executive compensation may be an imprecise and insensitive

	U	Inmatched sample (N	= 11,112)		Matched sample (N	= 754)		
Covariates	Mean (treated)	Mean (control) <i>t</i> -statistic <i>p</i>		Mean (treated)	Mean (control)	t-statistic	p	
High female executive representation	0.493	0.195	-14.237	0.000	0.493	0.451	-1.167	0.244
Chair political appointment	1.342	1.070	-2.855	0.004	1.342	1.345	0.019	0.985
Firm size	21.682	21.956	3.404	0.001	21.682	21.709	0.281	0.779
Leverage	0.499	0.514	1.362	0.173	0.499	0.503	0.268	0.789
Board size	2.179	2.208	2.811	0.005	2.179	2.188	0.600	0.549
Board independence	0.366	0.369	0.877	0.381	0.366	0.367	0.311	0.756
ROA	0.034	0.029	-1.588	0.112	0.034	0.030	-1.312	0.190
Tobin's Q	1.767	1.815	0.804	0.422	1.767	1.726	-0.596	0.551
State ownership	0.379	0.387	0.980	0.327	0.379	0.375	-0.406	0.685
Monitoring government	0.029	0.050	1.857	0.063	0.029	0.032	0.211	0.833
Chair ownership	0.001	0.002	1.672	0.095	0.001	0.001	0.173	0.863
Chair tenure	3.658	3.844	1.047	0.295	3.658	3.696	0.163	0.871
Chair duality	0.127	0.095	-2.071	0.038	0.127	0.146	0.742	0.459
Chair compensation	7.790	6.899	-2.581	0.010	7.790	8.109	0.666	0.506
PhD degree	0.053	0.085	2.175	0.030	0.053	0.048	-0.333	0.740
Chair age	51.905	52.775	2.993	0.003	51.905	52.281	0.921	0.358
Average age of the board	51.077	51.761	3.791	0.000	51.077	50.991	-0.377	0.706

## Table 3. Balance tests from propensity score matching approach

	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	-5.742***	-6.006***	-6.158***	-5.848***	-6.006***
	(1.687)	(1.688)	(1.689)	(1.676)	(1.683)
Firm size <sub>t-1</sub>	0.274***	0.279***	0.286***	0.268***	0.275***
	(0.057)	(0.057)	(0.057)	(0.057)	(0.057)
Leverage <sub>t-1</sub>	-0.332	-0.344	-0.327	-0.367	-0.350
	(0.419)	(0.432)	(0.438)	(0.430)	(0.436)
Board size <sub>t-1</sub>	-0.285	-0.243	-0.269	-0.199	-0.224
	(0.352)	(0.365)	(0.359)	(0.364)	(0.360)
Board independence <sub>t-1</sub>	-1.935	-1.673	-2.032	-1.701	—2.007
	(1.382)	(1.392)	(1.365)	(1.382)	(1.359)
ROA <sub>t-1</sub>	0.595	0.456	0.118	0.798	0.468
	(2.119)	(2.164)	(2.217)	(2.151)	(2.193)
Tobin's Q <sub>t-1</sub>	0.018	0.014	0.034	0.003	0.021
	(0.084)	(0.085)	(0.083)	(0.082)	(0.080)
State ownership <sub>t-1</sub>	-0.556	-0.612	-0.613	-0.548	-0.553
	(0.474)	(0.475)	(0.486)	(0.464)	(0.473)
Monitoring government <sub>t-1</sub>	0.236	0.216	0.193	0.296	0.268
	(0.355)	(0.351)	(0.344)	(0.356)	(0.350)
Chair ownership <sub>t-1</sub>	-57.225 <sup>†</sup> (31.135)	$-65.775^{\dagger}$ (36.703)	$-64.167^{\dagger}$ (36.961)	-66.216 <sup>†</sup> (36.937)	-64.693 <sup>†</sup> (37.050)
Chair tenure <sub>t-1</sub>	-0.018	-0.017	-0.014	-0.020	-0.017
	(0.021)	(0.020)	(0.020)	(0.020)	(0.020)
Chair duality <sub>t-1</sub>	-0.314 <sup>†</sup>	-0.295	-0.269	-0.291	-0.269
	(0.184)	(0.186)	(0.183)	(0.190)	(0.188)
Chair compensation <sub>t-1</sub>	0.018 <sup>†</sup>	0.018 <sup>†</sup>	0.016	0.013	0.011
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
PhD degree <sub>t-1</sub>	-0.126	-0.130	-0.081	-0.078	-0.042
	(0.320)	(0.308)	(0.307)	(0.311)	(0.310)
Chair age <sub>t-1</sub>	0.016	0.019	0.014	0.021	0.017
	(0.014)	(0.014)	(0.013)	(0.014)	(0.014)
Average age of the $board_{t-1}$	0.009	0.003	0.010	0.003	0.009
	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)
High female executive representation <sub>t-1</sub>	0.138	0.135	0.390*	0.165	0.382*
Chair political appointment <sub>t-1</sub>	(0.135)	(0.137) 0.059 <sup>†</sup>	(0.191) 0.045	(0.138) -0.017	(0.189) -0.022
Chair gender <sub>t-1</sub>	(0.032)	(0.032) 0.308**	(0.033) 0.537***	(0.046) 0.092	(0.046) 0.310
		(0.114)	(0.159)	(0.144)	(0.189)
representation × Chair gender <sub>t-1</sub>			-0.497" (0.243)		(0.243)
Chair political appointment × Chair gender $_{t-1}$				0.148*	0.134*
				(0.062)	(0.062)
Fixed industry effect	Yes	Yes	Yes	Yes	Yes (Continued)

Table 4. Negative binomial regressions predicting acquisition activities (propensity-matched sample)

## 16 D. Zhu and X.-H. Li

#### Table 4. (Continued.)

	Model 1	Model 2	Model 3	Model 4	Model 5
Fixed year effect	Yes	Yes	Yes	Yes	Yes
Fixed province effect	Yes	Yes	Yes	Yes	Yes
Ν	754	754	754	754	754
Pseudo R <sup>2</sup>	0.100	0.103	0.105	0.106	0.107

*Notes*: robust standard errors in parentheses;  $^{\dagger}p < 0.10$ ,  $^{*}p < 0.05$ ,  $^{**}p < 0.01$ ,  $^{***}p < 0.001$ ; all tests are two-tailed.

indicator because the government scrutinizes and restricts the compensation to minimize executive-employee pay disparities (Raynard et al., 2020). Therefore, in the primary analysis, we used the chair's political appointment as an indicator. In the robustness check, we conducted an additional analysis using chair compensation (logged) as a proxy for the reward representing positive governmental evaluation, which triggers self-efficacy in firm leaders. The results are reported in Model 2 of Table 5. *Chair compensation* had a positive and significant coefficient of interaction with *chair gender* ( $\beta = 0.029$ , p = 0.044), additionally supporting H3.

## Gender effects in non-SOEs

SOEs differ from non-SOEs in how executives are evaluated. Specifically, SOE executives rely on positive governmental evaluations. In non-SOEs, the main evaluators for executives are usually the major or largest shareholders who can closely observe executive actions. Thus, we theorize that SOE contexts encourage female leaders because the government and its agencies are remotely located and are usually positively affected when female chairs make vivid counter-stereotypical evaluation decisions. Consequently, female agentic advantage is elicited and female leadership is positively related to firm acquisitions. In non-SOE contexts, however, we anticipate that female chairs will underperform male chairs in terms of firm acquisitions. In the additional analyses, we ran the models that test our three hypotheses in the non-SOE sample and found nonsignificant correlations. The additional results further support our contention that Chinese SOEs are a unique context where women disprove stereotypes by exhibiting counter-stereotypical traits.

## Discussion

The widely accepted role incongruence perspective states that female executives tend to avoid taking risks. We introduce an alternative perspective, however, and show that female leaders may be more inclined than male leaders to take risks in certain contexts. That is, we examine Chinese SOEs where governmental agents, as major stakeholders and evaluators, ascribe agentic advantage to female executives who pursue firm acquisitions. We find strong support for our predictions that female leaders favorable evaluations. The effect is accentuated under two contingencies: higher gender stereotype threats and stronger self-efficacy. Specifically, female chairs are more likely than their male counterparts to engage in acquisition activities in Chinese SOEs, especially in firms that have lower female executive representation or when female chairs hold political appointments.

## Theoretical Contributions

Our study makes several important contributions to literatures on mergers and acquisitions, female executives, and SOEs. First, we demonstrate that an anticipated female agentic advantage enables leader gender to positively affect risk-taking. The literature presents contradictory predictions regarding how female and male leaders differ in risk-taking behaviors, but the predominant role incongruence perspective explains that female leaders face gender disadvantages (Eagly & Karau, 2002), that female-led firms will be more conservative because female leaders may receive more gender-based

Table 5.	Robustness	checks: D	ID analys	is and	alternative	measure	of	government's	reward
								A	

	DID ana Mode	alysis I 1	Alternative n Model	neasure 2
	β	RSE	β	RSE
Constant	-3.900*	1.922	-0.892*	0.450
Firm size <sub>t-1</sub>	0.215***	0.058	0.118***	0.017
Leverage <sub>t-1</sub>	0.506	0.357	0.906***	0.119
Board size <sub>t-1</sub>	0.270	0.342	-0.069	0.101
Board independence <sub>t-1</sub>	0.356	1.124	0.768*	0.361
ROA <sub>t-1</sub>	4.558***	1.146	3.278***	0.452
Tobin's Q <sub>t-1</sub>	0.035	0.061	-0.103***	0.022
State ownership <sub>t-1</sub>	-1.028*	0.415	-0.316*	0.125
Monitoring government <sub>t-1</sub>	-0.159	0.265	-0.063	0.088
Chair ownership <sub>t-1</sub>	-0.216	10.635	1.673	1.240
Chair tenure <sub>t-1</sub>	0.009	0.022	0.000	0.006
Chair duality <sub>t-1</sub>	-0.010	0.195	0.004	0.058
Chair compensation <sub>t-1</sub>	0.007	0.010	-0.000	0.003
PhD degree <sub>t-1</sub>	0.025	0.191	-0.101	0.066
Chair age <sub>t-1</sub>	-0.030*	0.013	-0.001	0.004
Average age of the board <sub>t-1</sub>	-0.016	0.022	-0.037***	0.006
High female executive representation <sub>t-1</sub>	0.093	0.151	-0.032	0.045
Chair political appointment <sub>t-1</sub>	-0.019	0.040	$0.017^{\dagger}$	0.010
Post	-0.104	0.137		
Male_female	0.323	0.330		
Female_male	-1.211*	0.486		
Male_female × Post	0.538*	0.214		
Female_male × Post	-0.274	0.390		
Chair gender <sub>t-1</sub>			0.041	0.161
Chair compensation <sub>t-1</sub> × Chair gender <sub>t-1</sub>			0.029*	0.015
Fixed industry effect	Yes		Yes	
Fixed year effect	Yes		Yes	
Fixed province effect	Yes		Yes	
N	1,135		11,112	
Pseudo R <sup>2</sup>	0.092		0.032	

*Notes*: RSE, robust standard error;  $^{\dagger}p < 0.10$ ,  $^{\star}p < 0.05$ ,  $^{\star\star\star}p < 0.001$ ; all tests are two-tailed.

bias and criticism if risky strategies fail (Post et al., 2022; Wang et al., 2018). In contrast, the expectancy violation theory proposes that women could earn female agentic advantage through risk-taking behaviors (e.g., Adams & Funk, 2012; Farag & Mallin, 2018). Here, we offer new insight into why and under what circumstances female executives might benefit by seeking risky strategies and violating expectancies.

Moreover, our study advances female leadership theory by contextualizing high risk-taking preferences among female leaders. Innate risk tolerance (Adams & Funk, 2012) has been used to explain why some female executives seek more risks than male executives (Farag & Mallin, 2018). Instead, we acknowledge that context has a strong influence, aligned with strategy scholars who have turned increasing attention to contextualizing the influence of female leadership (Gamache et al., 2023). More broadly, two primary contextualizing perspectives include the demand-side regarding how stake-holders evaluate female executives and the supply-side regarding how female executives impact firm strategies (Mah et al., 2023). To explain how executive gender relates to strategic outcomes, we introduce anticipated major stakeholder evaluation to show that the demand side interacts interdependently with the supply side in affecting female risk-taking leadership (Fernandez-Mateo & Kaplan, 2018). Future research would benefit by introducing the demand and supply link for considering responsive strategies that female executives use to tackle stakeholder-held gender stereotypes.

Second, our study contributes to SOE research that has long examined how SOEs distinctly differ from non-SOEs (Li, Xia, Long, & Tan, 2012). For example, both entities are often driven by different strategic objectives (Ghorbani et al., 2023). Executives in SOEs are more concerned about political incentives and tend to prioritize alignment with government goals, such as unemployment reduction; while non-SOEs are more focused on performance (Wang & Luo, 2019). Comparative studies, however, find that SOE executive heterogeneity should be better studied (Bruton et al., 2015). In response, we examine internal heterogeneity and demonstrate that female-led rather than male-led SOEs engage in more acquisitions. Moreover, women are profoundly underrepresented in SOEs (Zhang, 2012), so we need more understandings about this gender-related issue. Our work challenges the prevailing assumption that female leaders are more risk-averse (e.g., Chen et al., 2016; Huang & Kisgen, 2013), and may inspire further investigations on gender differences within the context of SOEs.

Third, our study contributes to the M&A literature. Leaders often engage in corporate acquisitions primarily to reap personal gains, such as increased compensation and social status (Seo et al., 2015; Shi et al., 2017). However, we lack research regarding how leaders of different genders differ in leveraging acquisition functions. By framing acquisitions in Chinese SOEs as a counter-stereotypical behavior that can trigger female agentic advantage, our study demonstrates that female leaders confront gender stereotypes when they pursue acquisition activities.

#### Practical Implications

By revealing gender effects on corporate acquisitions and the mechanism of female agentic advantage in the SOE context, our study has important practical implications for female leaders, firm stakeholders, and evaluators. We suggest that the major stakeholders and evaluators responsible for assessing corporate executives may need to consider whether their assessments involve gender stereotypes, because such evaluations may cause female executives to form responsive career strategies that substantially influence subsequent firm-level outcomes. We further suggest that the government should avoid the symbolic approach of merely mandating a quota for females in leadership positions. Instead, to tackle the pressing issue of female underrepresentation in SOEs, female leaders should be encouraged to actively challenge gender stereotypes and female agentic behaviors should be favorably evaluated. Female executives who aspire to shatter the career glass ceiling may benefit from learning how to leverage female agentic advantage and challenge entrenched gender biases. Furthermore, female executives tend to respond radically to stereotype threats in the workplace (Post et al., 2022). Thus, firms having limited female representation in upper echelons or led by female executives who receive positive personal feedback should remain vigilant regarding how female executives will perceive and react to gender stereotype threats.

## Limitations and Future Research Directions

Our study contains limitations that may provide directions for future fruitful research. First, although we theorize that agentic female advantage is associated with acquisition engagement and the corresponding governmental positive evaluations, we should recognize that women have varying innate risk propensities. Women in the upper echelons appear to be a paradox: they have lower risk-taking propensity than male colleagues but want to demonstrate competence by breaking gender stereotypes (Post et al., 2022). Although we find that female chairs are eager to demonstrate their competence through risk-taking in the Chinese SOE context, our data prohibit excluding innate risk-taking propensities. Future work may utilize field studies to directly explore these effects. Another challenge is how to measure stereotype threats. Directly measuring female chairs' perceptions is challenging, especially over long periods. We used a proxy of low female executive representation to indicate whether the female leader perceived gender stereotype threats. Future research may collect large-scale data of firm leaders' activities, speech, and body language, and use machine-learning techniques to code psychological constructs (Harrison, Josefy, Kalm, & Krause, 2023).

**Data availability statement.** The data supporting the findings of this study has been published in Open Science Framework at https://osf.io/bnf29/

Acknowledgments. We thank the editors and three anonymous reviewers for their valuable and constructive feedback on this article. We acknowledge the financial support from the National Natural Science Foundation of China (#71972048) and the Sci-Tech Innovation Foundation of Fudan University School of Management (# 20210106), and the financial support for open access of the article from Fudan University Library.

#### Notes

1. Guanxi is a Chinese concept denoting that interacting parties share moral obligations to exchange favors (Bian, 2006).

2. The negative binomial regression model is expressed as a log-linear model in the form of  $\ln(Y) = \beta X$ . Taking the exponent of both sides of this equation yields  $E(Y) = e^{\beta X}$ . Thus, the relative increase of the dependent variable is calculated using  $\frac{Y_2}{V_1} = e^{\beta X_2}_{\sigma^{\beta X_1}} = e^{\beta (X_2 - X_1)}$ . Because  $X_2 = 1$  corresponds to female chairs and  $X_1 = 0$  corresponds to male chairs, and  $\beta = 0.200$ , the relative increase in the dependent variable is computed as  $e^{0.200 \times (1-0)} = 1.22$ , indicating a 22% (1.22-1 = 22%) increase in acquisition activities for firms with female chairs compared to those with male chairs.

#### References

- Abraham, M. 2020. Gender-role incongruity and audience-based gender bias: An examination of networking among entrepreneurs. *Administrative Science Quarterly*, **65**(1): 151–180.
- Adams, R. B., & Funk, P. 2012. Beyond the glass ceiling: Does gender matter? Management Science, 58(2): 219-235.
- Ballinger, G. A., & Marcel, J. J. 2010. The use of an interim CEO during succession episodes and firm performance. Strategic Management Journal, 31(3): 262–283.
- Bandura, A. 1986. Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall.
- Bian, Y. 2006. Guanxi. In J. Beckert & M. Zafirovski (Eds.), International encyclopedia of economic sociology: 312–314. London, UK: Routledge.
- Bruton, G. D., Peng, M. W., Ahlstrom, D., Stan, C., & Xu, K. 2015. State-owned enterprises around the world as hybrid organizations. Academy of Management Perspectives, 29(1): 92–114.
- Buckley, P. J., Yu, P., Liu, Q., Munjal, S., & Tao, P. 2016. The institutional influence on the location strategies of multinational enterprises from emerging economies: Evidence from China's cross-border mergers and acquisitions. *Management and Organization Review*, **12**(3): 425–448.
- Cao, X., Lemmon, M., Pan, X., Qian, M., & Tian, G. 2019. Political promotion, CEO incentives, and the relationship between pay and performance. *Management Science*, 65(7): 2947–2965.
- Castellaneta, F., Conti, R., & Kacperczyk, A. 2020. The (Un) intended consequences of institutions lowering barriers to entrepreneurship: The impact on female workers. *Strategic Management Journal*, 41(7): 1274–1304.
- Chen, C. C., Chen, X.-P., & Huang, S. 2013. Chinese guanxi: An integrative review and new directions for future research. Management and Organization Review, 9(1): 167–207.
- Chen, G., Crossland, C., & Huang, S. 2016. Female board representation and corporate acquisition intensity. *Strategic Management Journal*, 37(2): 303–313.
- Chen, G., Luo, S., Tang, Y., & Tong, J. Y. 2023. Back to school: CEOs' pre-career exposure to religion, firm's risk-taking, and innovation. *Journal of Management*, 49(3): 881–912.
- Chng, D. H. M., & Wang, J. C. Y. 2016. An experimental study of the interaction effects of incentive compensation, career ambition, and task attention on Chinese managers' strategic risk behaviors. *Journal of Organizational Behavior*, 37(5): 719–737.
- Conyon, M. J., & He, L. 2011. Executive compensation and corporate governance in China. *Journal of Corporate Finance*, 17(4): 1158–1175.
- Eagly, A. H., & Karau, S. J. 2002. Role congruity theory of prejudice toward female leaders. Psychological Review, 109(3): 573-598.
- Eagly, A. H., & Wood, W. 1999. The origins of sex differences in human behavior: Evolved dispositions versus social roles. *American Psychologist*, 54(6): 408-423.
- Fan, D. K., Lau, C.-M., & Young, M. 2007. Is China's corporate governance beginning to come of age? The case of CEO turnover. Pacific-Basin Finance Journal, 15(2): 105–120.
- Farag, H., & Mallin, C. 2018. The influence of CEO demographic characteristics on corporate risk-taking: evidence from Chinese IPOs. *The European Journal of Finance*, 24(16): 1528–1551.

- Fernandez-Mateo, I., & Kaplan, S. 2018. Gender and organization science: Introduction to a virtual special issue. Organization Science, 29(6): 1229-1236.
- Festinger, L. 1957. A theory of cognitive dissonance. Palo Alto, CA: Stanford University Press.
- Francis, B., Hasan, I., Park, J. C., & Wu, Q. 2015. Gender differences in financial reporting decision making: Evidence from accounting conservatism. *Contemporary Accounting Research*, 32(3): 1285–1318.
- Gamache, D. L., Devers, C. E., Klein, F. B., & Hannigan, T. 2023. Shifting perspectives: How scrutiny shapes the relationship between CEO gender and acquisition activity. *Strategic Management Journal*, 44(12): 3012–3041.
- Ghorbani, M., Xie, Z., Jin, J., & Wang, F. 2023. Chinese firms' acquisition of innovation capability from overseas: Approaches by state-versus private-owned firms. *Management and Organization Review*, 19(2): 233–255.
- Gupta, V. K., Han, S., Mortal, S. C., Silveri, S. D., & Turban, D. B. 2018. Do women CEOs face greater threat of shareholder activism compared to male CEOs? A role congruity perspective. *Journal of Applied Psychology*, 103(2): 228–236.
- Gupta, V. K., Mortal, S., Chakrabarty, B., Guo, X., & Turban, D. B. 2020. CFO gender and financial statement irregularities. Academy of Management Journal, 63(3): 802–831.
- Haleblian, J., Devers, C. E., McNamara, G., Carpenter, M. A., & Davison, R. B. 2009. Taking stock of what we know about mergers and acquisitions: A review and research agenda. *Journal of Management*, 35(3): 469–502.
- Harrison, J. S., Josefy, M. A., Kalm, M., & Krause, R. 2023. Using supervised machine learning to scale human-coded data: A method and dataset in the board leadership context. *Strategic Management Journal*, 44(7): 1780–1802.
- Hassard, J., Morris, J., Sheehan, J., & Yuxin, X. 2010. China's state-owned enterprises: Economic reform and organizational restructuring. *Journal of Organizational Change Management*, 23(5): 500–516.
- Ho, S. S., Li, A. Y., Tam, K., & Zhang, F. 2015. CEO gender, ethical leadership, and accounting conservatism. *Journal of Business Ethics*, 127(2): 351–370.
- Hu, H. W., & Xu, D. 2022. Manager or politician? Effects of CEO pay on the performance of state-controlled Chinese listed firms. *Journal of Management*, 48(5): 1160–1187.
- Huang, J., & Kisgen, D. J. 2013. Gender and corporate finance: Are male executives overconfident relative to female executives? Journal of Financial Economics, 108(3): 822–839.
- Jeong, S. H., & Harrison, D. A. 2017. Glass breaking, strategy making, and value creating: Meta-analytic outcomes of women as CEOs and TMT members. Academy of Management Journal, 60(4): 1219–1252.
- Jia, C., Ding, S., Li, Y., & Wu, Z. 2009. Fraud, enforcement action, and the role of corporate governance: Evidence from China. Journal of Business Ethics, 90: 561–576.
- Joshi, A., Oh, S., & DesJardine, M. R. 2024. A new perspective on gender bias in the upper echelons: Why stakeholder variability matters. Academy of Management Review, 49(2): 322–343.
- Jussim, L., Coleman, L. M., & Lerch, L. 1987. The nature of stereotypes: A comparison and integration of three theories. Journal of Personality and Social Psychology, 52(3): 536–546.
- Kalnins, A. 2018. Multicollinearity: How common factors cause Type 1 errors in multivariate regression. *Strategic Management Journal*, **39**(8): 2362–2385.
- Kanter, R. M. 1977. Some effects of proportions on group life: Skewed sex ratios and responses to token women. American Journal of Sociology, 82(5): 965–990.
- Ke, B., Rui, O., & Yu, W. 2012. Hong Kong stock listing and the sensitivity of managerial compensation to firm performance in state-controlled Chinese firms. *Review of Accounting Studies*, 17: 166–188.
- Kuhn, P., & Shen, K. 2013. Gender discrimination in job ads: Evidence from China. *The Quarterly Journal of Economics*, **128**(1): 287–336.
- Lanaj, K., & Hollenbeck, J. R. 2015. Leadership over-emergence in self-managing teams: The role of gender and countervailing biases. Academy of Management Journal, 58(5): 1476–1494.
- Lee, P. M., & James, E. H. 2007. She'-e-os: Gender effects and investor reactions to the announcements of top executive appointments. Strategic Management Journal, 28(3): 227–241.
- Leung, A. S. 2002. Gender and career experience in Mainland Chinese state-owned enterprises. *Personnel Review*, 31(5): 602–619.
- Li, J., Li, P., & Wang, B. 2019. The liability of opaqueness: State ownership and the likelihood of deal completion in international acquisitions by Chinese firms. *Strategic Management Journal*, 40(2): 303–327.
- Li, S., & Lu, J. W. 2020. A dual-agency model of firm CSR in response to institutional pressure: Evidence from Chinese publicly listed firms. Academy of Management Journal, 63(6): 2004–2032.
- Li, S., Xia, J., Long, C. X., & Tan, J. 2012. Control modes and outcomes of transformed state-owned enterprises in China: An empirical test. *Management and Organization Review*, 8(2): 283–309.
- Li, X. H., & Liang, X. 2015. A Confucian social model of political appointments among Chinese private-firm entrepreneurs. Academy of Management Journal, 58(2): 592–617.
- Liu, S. 2013. A few good women at the top: The China case. Business Horizons, 56(4): 483-490.
- Liu, S., Liu, P., Wang, M., & Zhang, B. 2021. Effectiveness of stereotype threat interventions: A meta-analytic review. *Journal of Applied Psychology*, 106(6): 921–949.
- Ma, A., Rosette, A. S., & Koval, C. Z. 2022. Reconciling female agentic advantage and disadvantage with the CADDIS measure of agency. *Journal of Applied Psychology*, 107(12): 2115–2148.
- Macrae, C. N., Bodenhausen, G. V., & Milne, A. B. 1995. The dissection of selection in person perception: Inhibitory processes in social stereotyping. *Journal of Personality and Social Psychology*, 69(3): 397–407.

- Mah, J., Kolev, K. D., McNamara, G., Pan, L., & Devers, C. E. 2023. Women in the C-Suite: A review of predictors, Experiences, and Outcomes. Academy of Management Annals, 17(2): 586–625.
- Neuberg, S. L., & Fiske, S. T. 1987. Motivational influences on impression formation: outcome dependency, accuracy-driven attention, and individuating processes. *Journal of Personality and Social Psychology*, 53(3): 431–444.
- Palvia, A., Vähämaa, E., & Vähämaa, S. 2015. Are female CEOs and chairwomen more conservative and risk averse? Evidence from the banking industry during the financial crisis. *Journal of Business Ethics*, 131(3): 577–594.
- Park, S. H., & Westphal, J. D. 2013. Social discrimination in the corporate elite: How status affects the propensity for minority CEOs to receive blame for low firm performance. *Administrative Science Quarterly*, 58(4): 542–586.
- Post, C., Lokshin, B., & Boone, C. 2022. What changes after women enter top management teams? A gender-based model of strategic renewal. Academy of Management Journal, 65(1): 273–303.
- Raynard, M., Lu, F., & Jing, R. 2020. Reinventing the state-owned enterprise? Negotiating change during profound environmental upheaval. *Academy of Management Journal*, **63**(4): 1300–1335.
- Richman, L. S., Vandellen, M., & Wood, W. 2011. How women cope: Being a numerical minority in a male-dominated profession. *Journal of Social Issues*, 67(3): 492–509.
- Schaumberg, R. L., & Flynn, F. J. 2017. Self-reliance: A gender perspective on its relationship to communality and leadership evaluations. Academy of Management Journal, 60(5): 1859–1881.
- Schmader, T., Johns, M., & Forbes, C. 2008. An integrated process model of stereotype threat effects on performance. *Psychological Review*, 115(2): 336–356.
- Schweizer, D., Walker, T., & Zhang, A. 2019. Cross-border acquisitions by Chinese enterprises: The benefits and disadvantages of political connections. *Journal of Corporate Finance*, 57: 63–85.
- Seo, J., Gamache, D. L., Devers, C. E., & Carpenter, M. A. 2015. The role of CEO relative standing in acquisition behavior and CEO pay. Strategic Management Journal, 36(12): 1877–1894.
- Shi, W., Zhang, Y., & Hoskisson, R. E. 2017. Ripple effects of CEO awards: Investigating the acquisition activities of superstar CEOs' competitors. *Strategic Management Journal*, 38(10): 2080–2102.
- Sidhu, J. S., Feng, Y., Volberda, H. W., & Van Den Bosch, F. A. 2021. In the shadow of social stereotypes: Gender diversity on corporate boards, board chair's gender and strategic change. Organization Studies, 42(11): 1677–1698.
- Steele, C. M. 1988. The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), Advances in experimental social psychology: 261–302. San Diego, CA: Academic Press.
- Trzebiatowski, T., McCluney, C., & Hernandez, M. 2023. Managing the double bind: Women directors' participation tactics in the gendered boardroom. Organization Science, 34(2): 801–827.
- Tversky, A., & Kahneman, D. 1973. Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, 5(2): 207–232.
- Vial, A. C., Napier, J. L., & Brescoll, V. L. 2016. A bed of thorns: Female leaders and the self-reinforcing cycle of illegitimacy. *The Leadership Quarterly*, 27(3): 400–414.
- Wang, D., & Luo, X. R. 2019. Retire in peace: Officials' political incentives and corporate diversification in China. Administrative Science Quarterly, 64(4): 773–809.
- Wang, J. C., Markóczy, L., Sun, S. L., & Peng, M. W. 2019. She'-EO compensation gap: A role congruity view. Journal of Business Ethics, 159: 745–760.
- Wang, R., Wijen, F., & Heugens, P. P. 2018. Government's green grip: Multifaceted state influence on corporate environmental actions in China. Strategic Management Journal, 39(2): 403–428.
- Yang, R. L., Wang, Y., & Nie, H. H. 2013. The political promotion for quasi-government officers: Evidence from central stateowned enterprises in China. *Management World*, (3): 23–33; [in Chinese].
- Yeager, D. S., Purdie-Vaughns, V., Garcia, J., Apfel, N., Brzustoski, P., Master, A., Hessert, W. T., Williams, M. E., & Cohen, G. L. 2014. Breaking the cycle of mistrust: Wise interventions to provide critical feedback across the racial divide. *Journal of Experimental Psychology: General*, 143(2): 804–824.
- Zhang, J., Marquis, C., & Qiao, K. 2016. Do political connections buffer firms from or bind firms to the government? A study of corporate charitable donations of Chinese firms. Organization Science, 27(5): 1307–1324.
- Zhang, Y. 2012. Lessons for executive women from Chinese boardrooms. New York: Forbes. [cited October 2012]. Available from URL: http://www.forbes.com/sites/forbeswomanfiles/2012/10/09/lessons-for-executive-women-from-chinese-boardrooms/

Danyang Zhu (dyzhu17@fudan.edu.cn) is a postdoctoral researcher at the School of Management, Fudan University. She earned her PhD from Fudan University. Her research interests focus on strategic leadership, female executives, and organizational resilience, with recent interests in firm digitalization.

Xu-Hong Li (xhli@fudan.edu.cn) is a professor of strategic leadership and organizational behavior at the School of Management, Fudan University. Her current research focuses on the micro-foundation of strategic leadership and corporate governance, as well as entrepreneurs in Chinese technology-intensive companies and state-owned companies. Her work has appeared in journals such as *Academy of Management Journal* and *International Journal of Stress Management*, among others.

Cite this article: Zhu, D., & Li, X-H. (2025). Female Leadership and Corporate Acquisitions in Chinese State-Owned Enterprises. Management and Organization Review 1–21. https://doi.org/10.1017/mor.2024.17