



I'm here because I'm just as good as you: Ethnic minority CEOs, social categorisation processes and firm risk

Supun Chandrasena¹ · Ranadeva Jayasekera^{2,3} · Arūnas Burinskas³

Received: 28 January 2025 / Accepted: 3 April 2026
© The Author(s) 2026

Abstract

Drawing on social categorisation processes, we investigate the potential impact of the presence of ethnic minority (EM) CEOs on overall firm risk and whether this relationship is contingent on a culturally distant board of directors. Analysing a sample of 1,190 firms across 12 European countries from 2005 to 2018, we find that the presence of an EM CEO increases overall firm risk, while a culturally distant board mitigates it, particularly in the presence of an EM CEO, especially of Asian and Middle Eastern descent. Additionally, we find that organizations benefit from EM CEOs with higher educational qualifications and larger boards. Our findings contribute to understanding the implications of EM CEOs on firm risk and underscore the importance of governance and human resource measures in addressing associated challenges. This study suggests new considerations for corporate recruitment and risk management policies, fostering more inclusive and sustainable business practices in line with the United Nations' Sustainable Development Goals (SDGs).

Keywords Ethnic Minority CEOs · Cultural Distance · Firm Risk · Board of Directors

JEL classifications G32 · G34

1 Introduction

In recent years, discussions surrounding ethnic diversity and representation in corporate leadership have gained significant traction, reflecting broader societal shifts toward diversity and inclusion. Nevertheless, prior research and anecdotal evidence have underscored the formidable challenges ethnic minority (EM) individuals face in ascending to organiza-

✉ Supun Chandrasena
s.chandrasena@qub.ac.uk

¹ Queen's Business School, Queen's University Belfast, Riddel Hall, 185 Stranmillis Road, Belfast, UK

² Trinity Business School, Trinity College Dublin, College Green Dublin 2, Ireland

³ Faculty of Economics and Business Administration, Vilnius University, 3 Universiteto Street, Vilnius LT-01513, Lithuania

tional leadership positions (Cannella et al. 2009; Hill et al. 2015; Thams and Rickley 2023; Ursel et al. 2023). However, amidst these challenges, recent findings from the 2023 update from the Parker Review reveal promising strides towards greater ethnic diversity in executive roles within the UK's corporate landscape. For instance, 96 out of 100 FTSE companies have successfully met the target of appointing at least one EM director to their boards by 2021. Similarly, FTSE 250 companies are making strides towards meeting the December 2024 deadline of appointing at least one EM director, with 79% of responding companies achieving this target in 2023. Furthermore, the report indicates a significant increase in the number of EM CEOs within the FTSE 100, rising from 7 in 2022 to 12 in 2023 (Tyler et al. 2024). Beyond the UK context, events such as the Black Lives Matter movement in the United States have prompted heightened awareness and action regarding racial equality, with instances of CEOs stepping down to make way for individuals of colour¹ (McEvoy 2020). In the present business context, with heightened calls for Environmental, Social, and Governance (ESG) imperatives, integrating diversity and inclusion considerations, alongside fairness in employment, enhances corporate governance and social responsibility, fostering a more inclusive and equitable society. Ultimately, these efforts align with the broader global agenda of promoting long-term economic and social well-being and contribute significantly to sustainable development.

Amidst efforts to achieve ethnic diversity in corporate leadership, pressing inquiries arise regarding the retention and treatment of EM CEOs within organizations. Research reveals a concerning trend: EM CEOs often depart prematurely, voluntarily, or involuntarily (Hill et al. 2015; Thams and Rickley 2023; Wangrow et al. 2023). Anecdotal instances, like Vikram Pandit's tenure as CEO at Citibank from 2007–2012² underscore how performance pressure and perceived cultural mismatch prompt EM CEOs to resign (Hagan, 2009; Thams and Rickley 2023). Additionally, Black CEOs depart soon after recruitment, feeling tokenized and fearing they are being utilized as mere 'window dressing,' by a 'vanilla boys' club' of senior executives (BBC, 2021). Hence, performance pressure emerges as a significant factor (Bertrand et al. 2021; Haslam and Ryan 2008; Ryan and Haslam 2007), compounded by various complexities. With CEOs facing mounting pressures, including driving the net zero agenda and navigating geopolitical uncertainties, one must consider: *Does this burden disproportionately affect EM leaders? And if so, how does it impact the firm's overall risk profile?*

Precisely, by drawing on social categorization processes, based on social identity theory, intergroup biases and token status theory, we investigate whether the presence of an EM CEO contributes to increased overall firm risk. Previous research highlights the differential treatment faced by EM CEOs (Hewstone et al. 2002) and the obstacles posed by negative stereotypes (Carton and Rosette 2011; Rosette et al. 2008), hindering their ascent to firm

¹ The first high-profile leader to depart a top position was Reddit co-founder Alexis Ohanian. After serving on the company's board for 15 years, he described his departure as "long overdue" and pledged his seat on the otherwise all-white executive board to a Black candidate. Ohanian has since been replaced by Michael Seibel, Reddit's first Black board member. This move was followed by several other key resignations, including CrossFit CEO Greg Glassman and Adidas's head of global human resources Karen Parkin (McEvoy 2020).

² Indian-born Vikram Pandit, initially praised for his remarkable strategic abilities, was appointed as the CEO of Citibank in December 2007. However, as Citibank's performance declined, a profile story in *New York Magazine* accentuated his outgroup status, attributing it to cultural differences (Hagan 2009; Thams and Rickley 2023). In response to mounting pressure from Citibank's board of directors, Pandit finally stepped down from his role in 2012.

corner offices (Cannella et al. 2009; Hill et al. 2015; Thams and Rickley 2023; Ursel et al. 2023). Upon assuming leadership roles, they encounter heightened performance pressures (Bertrand et al. 2021; Haslam and Ryan 2008; Ryan and Haslam 2007), often feeling tokenized and under intense scrutiny (Ely and Thomas 2020; Kanter 1977; Thams and Rickley 2023; Ursel et al. 2023), compelling them to work harder to prove competence. This can potentially lead to a tendency for excessively aggressive risk-taking behaviour (Kanter 1977), which, we hypothesize, contributes to increased overall firm risk.

Given the forces of globalization and the increasing emphasis on workplace diversity and inclusion, it's not just the CEO position that demands diversity; the boardroom composition is equally critical. Would a corporate board, one that is culturally distant from the CEO, also have a role in shaping overall firm risk? From an agency theory perspective, a higher cultural distance (CD) between the CEO and the board leads to greater independence (Adams and Ferreira 2007) and less groupthink (Ferreira 2010). This independence encourages the board to raise more questions and be vigilant about management behaviour (Carter et al. 2003), thus preventing management from engaging in value-destroying risky ventures (Fracassi and Tate 2012) and ultimately reducing overall firm risk. Furthermore, it prevents unilateral strategic decision-making by promoting a group decision-making model (Sah and Stiglitz 1986, 1991), resulting in mixed opinions and disagreements, and ultimately a 'diversification of opinions effect' (Adams et al. 2005), which leads to lower overall firm risk. Conversely, a greater CD between the CEO and the board can lead to difficulty in aggregating differences in preferences, resulting in more erratic outcomes (Giannetti and Zhao 2015) and ultimately increasing overall firm risk. Thus, we hypothesize that a significant relationship exists between CEO-board CD and firm risk. However, the ultimate direction remains an empirical question.

Next, we investigate the behaviour of a culturally distant board, particularly in the context of an EM CEO. We hypothesize that the heightened oversight provided by a culturally distant board would be intensified by the negative sentiments stemming from stereotypes surrounding EM CEOs, resulting in even greater monitoring (Thams and Rickley 2023). Consequently, we hypothesize that EM CEOs may encounter difficulties engaging in value-destroying risky ventures, when overseen by a culturally distant board, thereby reducing overall firm risk.

We develop two models to test the above associations. Overall idiosyncratic firm risk is proxied by performance volatility (Cain and McKeon 2016), measured by the annualized standard deviation of monthly stock returns over 12 months (Cheng 2008; Giannetti and Zhao 2015; Sila et al. 2016; Wang 2012). Ethnic minority is a dichotomous variable that takes the value of 1 if the CEO is of a non-Caucasian origin and 0 otherwise (Abebe and Dadanlar 2021). The relative CD between the CEO and board of directors is a variant of the Euclidean distance index and is employed with Hofstede's cultural dimensions. We control for CEO characteristics (CEO tenure, age, gender, education, network size and CEO power), board attributes (board size and independence) and firm characteristics (firm size, leverage, growth opportunities and investment) that are well known to affect firm idiosyncratic risk, together with industry, country and year fixed effects. The results help us to capture and distinguish the effect of the presence of an EM CEO on overall firm risk, when all other personal, board-level, firm-related and other dynamics are held constant.

By scrutinizing a sample of 1,190 firms from 12 European countries, over 14 years from 2005 to 2018, the study finds that the presence of an EM CEO elevates overall firm risk.

While, in general, a board that is culturally distant from the CEO may not exert a statistically significant impact on overall firm risk, particularly when the CEO is from an EM background, a culturally distant board serves to decrease overall firm risk. Interestingly, in supplementary analysis, we discover that only CEOs of Asian and Middle Eastern descent significantly heighten firm risk, challenging the conventional practice of uniformly treating all EM CEOs. Thus, in line with scarce prior research (e.g. Ursel et al. 2023), we underscore the risk of overlooking critical distinctions when ethnicities are not disaggregated.

Conversely, in supplementary analysis, aligned with upper echelons theory and resource-based views, we also discover that organizations in the current globalized business environment can derive benefits from having an EM CEO with higher educational qualifications. Additionally, our analysis also demonstrates that a larger board size can help decrease overall firm risk, even when an EM CEO is present. Research shows that larger boards often compromise more to reach consensus, leading to less extreme decisions and lower performance variability (Cheng 2008; Wang 2012). This dynamic can help mitigate the influence of an EM CEO on firm risk by fostering balanced decision-making and reducing excessively aggressive risk-taking behaviours by the EM CEO. Our findings remain robust to possible endogeneity issues, sample selection bias and a variety of alternative definitions of dependent and independent variables.

We contribute to the current literature on EM CEOs/executives and various firm outcomes (Cook and Glass 2014a, b, 2015; Hill et al. 2015; Thams and Rickley 2023; Ursel et al. 2023) by examining how the presence of an EM CEO impacts, or specifically increases, overall firm risk, a topic that has not been explored previously. Additionally, we address the scant research on the role of different ethnic subgroups in firm outcomes, highlighting the need to investigate the reasons behind such disparities among ethnicities. Moreover, our study empirically demonstrates the effectiveness of governance measures, such as appointing culturally distant and/or larger boards, and human resource measures, such as augmenting the human resources (e.g. education, experience) and support for EM CEOs, in addressing challenges associated with EM CEOs in firms. These findings have implications for both academia and practice, suggesting new considerations for corporate recruitment and risk management policies, ultimately guiding efforts towards more inclusive and sustainable business practices in line with the United Nations' Sustainable Development Goals (SDGs).

2 Theoretical background and hypotheses

2.1 EM CEOs and firm risk

This section explores how social discrimination, intergroup biases, stereotypes, and token status contribute to escalating the performance pressure experienced by EM CEOs.

2.1.1 Social categorisation processes based on social identity: Intergroup biases and stereotypes

Social identity theory posits that individuals use observable characteristics (such as race and gender) to categorize themselves and others into ingroups or outgroups based on social

similarity (Ashforth and Mael 1989; Tajfel and Turner 1979). Similarity leads to familiarity, attachment, and cohesion, resulting in a positive social identity within ingroup membership. As observed by Allport (1954, p. 42), “The familiar is preferred. What is alien is regarded as somehow inferior, less ‘good’.” Intergroup bias, favouring those who are similar, generates positive perceptions of high social status among ingroup members (Tajfel et al. 1971), and causes differential treatment compared to outgroup members (Hewstone et al. 2002). Prior scholars (Park and Westphal 2013; Weber and Wiersema 2017) have extensively researched these social categorization processes, based on social identity, intergroup bias, and the attribution fallacy.

Previous research has indicated that individuals of foreign origin, often categorized as outgroup members, experience various adverse outcomes in the labour market, including the undermining of workers’ qualifications and experiences (Argue and Velema 2022), lower earnings (Ferrer and Riddell 2008), higher concerns over career progression (Bachrach et al. 2023) and higher risk of dismissal when economic conditions deteriorate (Bureau of Labor Statistics - U.S. Department of Labor, 2021). Workers with a foreign origin are the object of negative attitudes (Mayda 2006), ranging from discomfort to overt xenophobia (De Figueiredo and Elkins 2003). Despite the limited number of studies, prior research on the effects of foreign origin on corporate leaders suggests that foreign-born CEOs also experience challenges associated with outgroup status (Bertrand et al. 2021; Hernandez and Kulchina 2020; Legrand et al. 2019; Mata and Alves 2018; Thams and Rickley 2023).

Categorization into ingroups and outgroups based on observable characteristics is often associated with the formation of stereotypes (Legrand et al. 2019). Women and minorities are often stereotyped as less competent and capable of leading organizations compared to white men (Carton and Rosette 2011; Rosette et al. 2008).

The negative stereotypes significantly contribute to challenges faced by occupational minorities (defined by Cook and Glass (2014a) as women and men/women of colour in the workplace) in securing corporate leadership positions (Cannella et al. 2009; Hill et al. 2015; Thams and Rickley 2023; Ursel et al. 2023). Research indicates that occupational minorities may reluctantly accept precarious leadership positions due to concerns about limited future opportunities (Ryan and Haslam 2007). Additionally, they are often expected to engage in more ingratiation behaviours toward CEOs to secure board seats (Westphal and Stern 2006). Upon reaching the top post, they face higher performance pressures (Bertrand et al. 2021; Haslam and Ryan 2008; Ryan and Haslam 2007) and higher risks of dismissal (Thams and Rickley 2023). Therefore, it is evident that EM CEOs face significant pressure to perform.

2.1.2 Token status and performance pressures

Kanter’s Token status theory (1977) suggests that an organization’s demographics can severely impact its token members and the entire organization (Brinkhuis and Scholtens 2018; Kanter 1977). In essence, token members can be described as underrepresented social group members (Kanter 1977). According to the tenets of this theory “the extent to which a social identity group member is a token dramatically shapes that person’s experiences within a work group or organization, and this tends to be negative” (Watkins et al. 2019, p. 335).

Polarization, a perceptual phenomenon among token members, accentuates dominants’ group boundaries (Kanter 1977), exacerbating feelings of isolation and exclusion among

tokens, particularly EM individuals, in our case. Moreover, tokens perceive heightened visibility, often due to factors unrelated to their abilities (Kanter 1977), leading to increased fear of making mistakes and underperforming, as well as heightened intense monitoring (Ely and Thomas 2020; Thams and Rickley 2023; Ursel et al. 2023). Consequently, there is a need to work harder to prove competence, which amplifies performance pressure (Kanter 1977). Adding to their pressure is the perceived burden of symbolic consequences, where their actions represent not just themselves but their entire category (Kanter 1977). Interestingly, studies on token status indicate that individuals experiencing this status are negatively affected in terms of how they are perceived by other individuals, irrespective of any other possible discriminatory treatment (Lee and James 2007).

The heightened performance pressure is likely to impede the ability of minority CEOs to succeed as corporate leaders and decrease job satisfaction post-promotion (Cook and Glass 2014b), and a tendency to overcompensate by taking excessively aggressive risks to prove their capabilities (Kanter 1977), all of which may contribute to increased firm risk.

In light of the above discussion, we hypothesize the following:

H₁ The presence of an EM CEO increases firm risk.

2.2 CEO-board CDs and firm risk

Fracassi and Tate (2012) affirm that close CEO-director ties encourage managers to engage in value-destroying acquisitions, leading to volatile outcomes. Conversely, a culturally distant CEO and board of directors rarely belong to the same network. Thus from an agency theory perspective, this would imply that the board members are more “unfriendly” (Adams and Ferreira 2007). Furthermore, the CEO and the board are less likely to suffer from groupthink (Ferreira 2010) and consequently, the board would be more independent than a homogeneous board. Independent directors, in general, would not collude with the CEO/top management or the inside directors and are more likely to raise questions and be vigilant about the behaviour of the management (Carter et al. 2003). Therefore the CEO is unable to be involved in value-destroying risky ventures, subsequently resulting in less volatile performance.

Nonetheless, this would also infer that a culturally distant board would be less captive to the CEO, and thus will play an active role in monitoring CEO’s decisions, implying that CEOs are unlikely to make strategic decisions single-handedly. The decisions made by the CEO and top management team, will be reviewed intensely by the culturally distant board members, resulting in greater differences in opinions, views, and perspectives, regarding a given strategic choice. This would entail mixed opinions and disagreements and finally a “diversification of opinions effect” (Adams et al. 2005, p. 1406), when approving management proposals. This resembles to a model of group decision-making presented by Sah and Stiglitz (1986, 1991) and empirically tested on boards by Adams et al. (2005). The resultant decisions, made by a group, as opposed to an individual, will be less extreme; neither very good nor very bad and hence associated with less variable performance, as the project must be endorsed as acceptable by several group members, before it can finally be accepted (Cheng 2008).

However, on the other hand, prior literature shows that CD creates communication and integration problems (Ahern et al. 2015; Cao et al. 2018; Ferris et al. 2022) and thus greater

CD between the CEO and the board can lead to difficulty in aggregating the differences in preferences, resulting with more erratic outcomes (Giannetti and Zhao 2015). These authors affirm that in such a backdrop corporate strategies are rarely persistent.

Thus, in light of the above, the following can be hypothesized:

H₂ There is a significant relationship between CEO-board CD and firm risk.

However, the ultimate direction remains an empirical question.

2.3 The moderating effect of CEO-board CD on the relationship between EM CEOs and firm risk

In this section, we delve into a focused analysis, examining a subset of our dataset comprising of firms with EM CEOs, to explore how they interact with a culturally distant board in shaping firm risk.

As noted, negative stereotypes surrounding EM CEOs may lead the board to perceive them as a poor fit for their roles, reflecting bias against individuals of minority status in positions traditionally held by nonminority groups (Daily et al. 1999; Hill et al. 2015). Thus, culturally distant and ‘unfriendly boards’ (Adams and Ferreira 2007), may provide increased scrutiny and monitoring, compared to their culturally similar counterparts (Thams and Rickley 2023). Consequently, EM CEOs may find themselves unable to engage in value-destroying risky ventures, resulting in less volatile performance.

Considering the above, we propose the following hypothesis.

H₃ The degree of CD between the board and the EM CEO negatively moderates the relationship between the presence of an EM CEO and firm risk.

3 Materials and methods

3.1 Sample overview

A European sample is chosen for this study due to several reasons. The primary motivation is the economic liberalization within Europe, which leads to the employment of more EM CEOs and directors compared to other regions. Additionally, Trompenaars (1993, p.8) suggests that cultural differences are particularly pronounced within Europe, stating, ‘nowhere do cultures differ so much as inside Europe.’ Moreover, Jean Monnet, the founder of the European Community, once remarked, ‘if I were again facing the challenge to integrate Europe, I would probably start with culture’ (quoted from Trompenaars 1993, p. 8). Hence, we anticipate that CDs between CEOs and boards to be prevalent among the sampled firms. Finally, Ferris et al. (2022) affirm that excluding the US would confirm that the results are not driven by one mega-economy and that the findings of cultures’ influence are insightful to a more global sample of firms.

Out of the twenty-eight countries in the European Union (EU), as at 2018, the first fifteen countries, with the highest Gross Domestic Product (GDP) at market prices, calculated based on purchasing power standards are initially identified for the sample. However, due to data limitations, firms from Romania, Czechia and Italy are eliminated. If a particular

country operates with several stock exchanges, which happens to be the case mostly, the principal stock exchange of a country is identified. All companies listed in the principal stock exchange (excluding cross-listings) of a particular country are chosen for the sample.

To be consistent with previous studies, regulated industries, such as utility companies (ICB code 65) and financial firms (ICB code 30) as per FTSE Russell Industry Classification Benchmark (ICB), are excluded from the sample. Required data are sourced mainly from two databases, Worldscope and Boardex³, where all financial data are retrieved from the former and the CEO and director level data (e.g.: nationality, gender, age, education etc.) are collected from the latter. Companies with too many missing values have been dropped. The final sample includes 1,190 firms from 12 European countries, over 14 years from 2005 to 2018.

3.2 Measures

3.2.1 Dependent variable(s) - measures of performance volatility

We explore the impact of the presence of an EM CEO, CD between the CEO and board of directors and the interaction between the two on overall firm risk. A firm's overall risk is measured as the within-firm, over-time variability of corporate performance, proxied by the annualized standard deviation of monthly stock returns over 12 months (Cheng 2008; Giannetti and Zhao 2015; Sila et al. 2016; Wang 2012).

3.2.2 Main independent variable(s)

MINORITY is a dichotomous variable that takes the value of 1 if the CEO is from a non-Caucasian origin and 0 otherwise. We apply a facial recognition technique to analyse multiple images of the CEO sourced from the firm annual reports and the internet, effectively capturing CEOs who are visibly non-Caucasian (see Sunitha et al. (2022) for a similar methodology).

To operationalize *CEO_BOD*, we collate the nationalities of the CEO and all board of directors in each firm from the Boardex database and employ the KSI developed by Kogut and Singh (1988). To operationalize CDs, the study adopts Hofstede (1980) cultural dimensions.

CD between the CEO and board of directors is calculated as below:

$$CD_{CEO-DIR} = \sum_{i=1}^n \left\{ (I_{CEOit} - I_{DIRit})^2 / V_{it} \right\} / N$$

where $CD_{CEO-DIR}$ is the CD between the CEO and board of directors. I_{CEOit} is the Hofstede's score for i th cultural dimension, attached to the CEO's country in firm x and time t . I_{DIRit} is the mean score of Hofstede's i th cultural dimension, attached to all directors' respective countries in

³ Most of the European countries have a dual board system as highlighted by Adams and Ferreira (2007), except for UK and Sweden (who have sole boards) and France (who have a mixed board structure). However, in this study, the data retrieved from the Boardex database consists of total data, i.e. the total number of directors in the firm, including the number of supervisory directors, executive directors, and independent non-executive directors involved in performing both monitoring and advisory roles.

firm x at time t . V_{ixt} is the in-sample variance for the i th cultural dimension for firm x and time t . N is equal to 4⁴. The above two variables are employed to test the first and second hypotheses and their interaction (*BODXMINORITY*) is used to test the third hypothesis.

3.2.3 Control variables

The study controls for CEO level, board level and firm level variables.

CEO level control variables include CEO *TENURE* (Berger et al. 1997; Sila et al. 2016), CEO *AGE* (Child 1974; Hambrick and Mason 1984), CEO *GENDER* (Adams and Funk 2012; Farag and Mallin 2017; Fehr-Duda et al. 2006; Sila et al. 2016), CEO education (*QUALS*) (Bertrand and Schoar 2003; Hambrick and Mason 1984; Orens and Reheul 2013) CEO network size (*NETWORKS*) (Burt 1992; Singh 2007) and CEO power (*DUAL*) proxied by CEO duality as per Sila et al. (2016) (a dummy variable that is 1 if CEO duality is present or 0 otherwise) are controlled for in the analysis.

Under board characteristics, the study controls for board size measured by the number of directors on the board (*TOT_DIR*) and board independence (*BOARD_IND*) measured by non-executive directors as a proportion of total directors (Cheng 2008; Sila et al. 2016; Wang 2012).

Firm and industry characteristics include firm size proxied by the number of employees (*EMP*) (Cheng 2008), firm leverage (*LEV*), firm growth opportunities (*GROWTH*) (Giannetti and Zhao 2015; Wang 2012) and investment (*INV*) (Sila et al. 2016). To account for industry-specific factors that would drive firm volatility, the model includes industry dummies.

A definition of all variables is included in Appendix I.

3.3 Methodology

To test our hypotheses, we propose the following empirical models:

$$Firm\ risk_{it} = \beta_0 + \beta_1 Minority\ CEO_{it} + \beta_2 CEO_board\ CD_{it} + CEO\ controls_{it} + Boardcontrols_{it} + Firmcontrols_{it} + fe \quad (1)$$

$$Firm\ risk_{it} = \beta_0 + \beta_1 Minority\ CEO_{it} + \beta_2 CEO_board\ CD_{it} + \beta_3 Minority\ CEO_{it} * CEO_board\ CD_{it} + CEO\ controls_{it} + Boardcontrols_{it} + Firmcontrols_{it} + fe \quad (2)$$

where i =firm and t =year.

⁴ The empirical analysis utilizes the initial four dimensions of Hofstede's cultural framework: power distance, collectivism vs. individualism, uncertainty avoidance, and femininity vs. masculinity. Although Beugelsdijk et al. (2018) suggest incorporating Hofstede's six-dimensional framework to account for all available information, they question the theoretical and methodological validity of adding the two new dimensions (see Beugelsdijk et al. (2018) for a comprehensive discussion). Given that this study adopts "the framework in its totality" (p.1122) instead of focusing solely on individual distance dimensions, and due to the prevalence of missing values for the additional dimensions, namely "long-term orientation" and "indulgence vs. restraint," the analysis concentrates solely on the original four Hofstede dimensions. Furthermore, the analysis use the variance of a dimension that is relevant within a dataset that consists of only a sub-sample of countries (i.e. the sample variance), as suggested by Beugelsdijk et al. (2018). Moreover, one might question the appropriateness of replacing individual-level cultural variables with macro-level ones. However, (Dow et al. 2014) argue that researchers can still capture approximately 80% of the explained variance of CD even when utilizing a comprehensive set of macro-level variables, such as cultural dimensions, in the absence of information on individual directors' perceptions.

The model includes industry, country and year-fixed effects. CDs within a firm may vary over time (t), due to changes in CEOs and directors, although such occurrences are sporadic. Wooldridge (2002) argues that for fixed effects to capture time-invariant characteristics of the same individual, the independent variable should vary across time. Conversely, if the independent variable remains constant over time, its effect cannot be distinguished from the fixed effect (Coles et al. 2008; Giannetti and Zhao 2015; Hermalin and Weisbach 1991; Wang 2012). Hermalin and Weisbach (1998) suggest that board structure tends to be relatively persistent. Thus, only industry, country and year fixed effects are included but not firm fixed effects (Coles et al. 2008; Giannetti and Zhao 2015; Hermalin and Weisbach 1991; Wang 2012).

3.4 Preliminary tests

In unreported analysis, we conduct pairwise correlations and Variance Inflation Factors (VIF). A low positive correlation (43%) can be seen between board size and firm size. However, no multicollinearity is detected among any of the variables under consideration, as variance inflation factors for all variables are well below the cutoff threshold of 10 (Hair et al. 2010). Therefore, the low correlation between board size and firm size is ignored as it is not severe enough to warrant corrective measures.

In further unreported analysis, a Levin-Lin-Chu (LLC) test, including a linear time trend in conducted, to assess panel unit roots for the dependent, independent and control variables. The results overwhelmingly reject the null hypothesis of unit roots for all variables tested, indicating stationarity, all significant at the 1% level⁵.

Pesaran's (2004) cross-sectional dependence test indicates that the residuals are not correlated across entities. However, the modified Wald test implies the presence of group-wise heteroscedasticity terms in our fixed effect regression model. Wooldridge (2002) test denotes the presence of first-order serial correlation in the error term. Thus, to overcome the issues of heteroscedasticity and serial correlation, Generalized Least Squares (GLS) regression is employed to estimate the above models.

4 Findings and discussion

4.1 Descriptive findings

Table 1 provides a country-level overview, comparing the start of the investigation period in 2005 to the end of the investigation period in 2018. In total, the sample contains 9,825 firm-year observations. These firms are located in 12 countries, where most

⁵ LLC test requires the ratio of the number of panels to periods to tend to zero asymptotically. Therefore, one can argue that it is not suitable for large datasets with a greater number of panels and relatively less time periods (Stata, n.d.). Therefore, in unreported analysis, a Harris-Tzavalis (HT) test is also carried out in addition to LLC tests for all variables. HT test assumes the number of panels tends to infinity while the number of time periods is fixed (Stata, n.d.). The point estimates of ρ and the z statistics for each test are indicated, which are significant at 1% level in almost all instances. In very few cases, the statistic is significant at either 5% (indicated as **) or 10% (indicated as *) levels, inferring that the null hypothesis which suggests that "panels contain unit roots" can be rejected. Put differently, the results suggest that the series is stationary.

Table 1 Sample structure by country

Country	Freq.	Percent	Minority		CEO – Board CD	
			2005	2018	2005	2018
Austria	126	1.28	0.0%	8.3%	0.15	0.60
Belgium	645	6.54	2.9%	0.0%	0.55	0.84
Denmark	231	2.34	0.0%	0.0%	0.29	0.30
France	2,089	21.17	6.9%	6.4%	0.46	0.58
Germany	809	8.2	0.0%	4.7%	0.35	0.46
Ireland	293	2.97	7.1%	0.0%	0.32	0.55
Netherlands	596	6.04	3.2%	3.3%	1.58	0.57
Poland	96	0.97	0.0%	10.0%	0.00	0.20
Portugal	207	2.1	0.0%	14.3%	0.00	0.00
Spain	668	6.77	9.1%	12.1%	0.89	0.35
Sweden	517	5.24	5.7%	8.3%	1.71	0.46
United Kingdom	3,548	35.96	5.8%	8.5%	1.20	1.03
<i>Total</i>	9,825	100				
<i>Average</i>			5.1%	7.4%	0.90	0.74

This table reports the sample structure by country, comparing the presence of EM CEOs and the CEO-board CD at the start of the investigation period in 2005 to the end of the investigation period in 2018. All variables are defined in Appendix I

firms are based in the UK (36%) followed by France (21%), and Germany (8%). On average, the proportion of CEO's from minority backgrounds, which includes Black, Asian, Middle Eastern and Hispanic, has increased from 5.1% to 7.4%. At the same time, the distance measures between the CEO and the board have slightly declined. These general trends, however, mask heterogeneity in the sample. For instance, hiring CEO's from a minority ethnic background has been more common in the UK, Spain and Sweden over the period. Austria, Poland and Portugal have evidently pursued assertive measures during the period under examination, resulting in a notable increase in minority ethnic representation from zero in 2005 to nearly 10% or more by 2018. Increasing ethnic diversity in CEO representation and CD at the same time is far less common and can only be observed in Austria and Germany. Accordingly, our sample offers considerable heterogeneity across countries and time to study the interplay between CEO ethnicities, CEO-board CDs and firm risk.

Table 2 provides summary statistics. It indicates that the average monthly stock performance volatility (SD_MNTH) is about 31%, with a higher volatility of 49% based on quarterly data (SD_QTR). CEO characteristics portray that the average age (AGE) of a CEO is about 54 years old. They hold two educational qualifications, undergraduate and above (QUALS). CEO tenure is about six years (TENURE). Board characteristics reveal that an average board comprises about ten directors (TOT_DIR). Jensen (1993) suggests that the ideal size of the board should be about 7 or 8 directors. Moreover, Table 2 illustrates that the average number of employees in sample firms is large (about 23,600). Note that the variable EMP refers to the natural logarithm of the number of employees. These descriptive findings might imply that the sample is biased toward larger firms. The alleged sample selection bias into account in our robustness checks.

Table 2 Descriptive statistics

Variable	Obs	Mean	Standard deviation	p25	p50	p75
Dependent Variables: Different measures of leverage						
Sd_Mnth	9959	0.31	0.19	0.20	0.27	0.38
Sd_Qtr	9959	0.49	0.38	0.25	0.41	0.63
Independent Variables: EM CEOs and CEO-board CDs						
Asian	9959	0.02	0.14	0.00	0.00	0.00
Black	9959	0.01	0.08	0.00	0.00	0.00
Middle	9959	0.04	0.19	0.00	0.00	0.00
Hispanic	9959	0.03	0.18	0.00	0.00	0.00
Minority	9959	0.06	0.24	0.00	0.00	0.00
CEO_Bod	4898	0.78	1.50	0.10	0.22	0.65
CEO Characteristics						
Tenure	9904	6.36	6.69	1.80	4.30	8.40
Age	9482	53.60	7.41	49.00	53.00	58.00
Quals	9905	1.71	1.16	1.00	2.00	2.00
Network	9847	5.63	1.48	4.45	5.68	6.75
Gender	9959	0.03	0.16	0.00	0.00	0.00
Board Characteristics						
Tot_Dir	9959	9.87	4.19	7.00	9.00	12.00
Board_Ind	9959	0.46	0.21	0.33	0.50	0.60
Firm characteristics						
Emp	8796	8.25	2.27	6.89	8.38	9.79
Growth	8974	0.15	10.07	0.01	0.05	0.09
Lev	9198	0.25	0.22	0.10	0.23	0.35
Inv	9129	0.05	0.05	0.02	0.03	0.06

This table reports the summary statistics for alternative dependent variables, EM CEOs, CEO-board CDs and a range of variables relating to CEOs, board of directors and firms. The sample covers 1,190 firms from 12 different European countries for 14 years from 2005 to 2018, representing all industries but excluding ICB code 65 (utility companies) and 30 (financial companies) as per FTSE Russell Industry Classification Benchmark. All variables are defined in Appendix 1

Appendix II depicts a breakdown of the nationalities of sample CEOs and directors. The sample consists of 12,298 directors in total, representing 90 different countries. Out of the total, a considerable number (i.e. 2,188, which is about 17.8%) of directors are females. Yet, the proportion is substantially below the binding quotas of female participation (about 40%) that prevails in many European countries. However, 17.8% is better when compared to the female CEO proportion. Out of the total 1,566 CEOs, only 38 are females, a mere 2%. The sample CEOs represent 48 different nationalities.

4.2 Main findings

Panel A and B of Table 3 depict the results of the Feasible Generalized Least Squares Regression method for panel data, for specification (1) and (2) respectively. Panel A indicates that the presence of an EM CEO has a statistically significant positive impact on firm risk ($B=4.34$, $p<0.01$). Hence, we find strong support for Hypothesis 1. This implies that heightened performance pressure due to social categorization, intergroup biases, negative stereotypes and token status may lead EM CEOs to overcompensate

Table 3 EM CEOs, CEO-board CDs and Moderation on Firm Risk

Feasible generalised least squares regression		
Dependent variable=Annualised standard deviation of monthly stock returns over 12 months (SD_MNTH)		
	Panel A	Panel B
Minority	0.0434*** (0.0121)	0.0618*** (0.0121)
CEO_Bod	-0.00122 (0.0017)	-0.000245 (0.0018)
BodxMinority		-0.0148** (0.0065)
<i>CEO Characteristics</i>		
Dual	-0.0087 (0.0069)	-0.0085 (0.0070)
Tenure	-0.00049 (0.0004)	-0.00046 (0.0004)
Age	0.0000 (0.0004)	0.0000 (0.0004)
Quals	-0.0024 (0.0023)	-0.0021 (0.0023)
Network	0.0000 (0.0000)	0.0000 (0.0000)
Gender	0.0060 (0.0226)	0.0074 (0.0227)
<i>Board Characteristics</i>		
Tot_Dir	-0.0037*** (0.0008)	-0.0037*** (0.0008)
Board_Ind	-0.0265* (0.0141)	-0.0334** (0.0135)
<i>Firm Characteristics</i>		
Emp	-0.0000** (0.0000)	-0.0000* (0.0000)
Growth	-0.0075*** (0.0029)	-0.0074*** (0.0029)
Lev	0.0196 (0.0164)	0.0228 (0.0165)
Inv	0.0702 (0.0571)	0.0506 (0.0567)
Constant	0.2510*** (0.0503)	0.2490*** (0.0510)
Industry FE	Yes	Yes
Country FE	Yes	Yes
Year FE	Yes	Yes
Observations	2,268	2,268

This table reports specification (1) and (2) in Panel A and B respectively. The dependent variable is the overall firm risk proxied by the with-in firm over-time variability in stock performance calculated as annualized standard deviation of monthly stock returns over 12 months. The coefficients are estimated based on feasible generalized least squares (FGLS) regression. Industry, country and year fixed effects are included in the model. Standard errors are shown in parentheses

*** ** * indicate significance at the 10%, 5% and 1% level respectively. All the variables are defined in Appendix I

by taking excessively aggressive risks to demonstrate their capabilities (Kanter 1977), potentially increasing firm risk⁶.

Hypothesis 2 predicts that the CD between the CEO and board of directors has a statistically significant impact on firm risk. Nevertheless, as shown in Panel A, the CD between the CEO and board of directors has no statistically significant direct impact on firm risk. As such, we find no support for H₂.

Hypothesis 3 predicts that the degree of CD between the board and the EM CEO negatively moderates the relationship between the presence of an EM CEO and firm risk. The results in Panel B confirm this expectation ($B = -1.48, p < 0.05$). Accordingly, Hypothesis 3 is supported. This suggests that the increased monitoring and oversight by culturally distant and ‘unfriendly’ boards (Adams and Ferreira 2007) may lead to EM CEOs being less inclined to engage in value-destroying risky ventures (Fracassi and Tate 2012).

4.3 Supplementary analysis

Hypothesis 1 posits that heightened performance pressure arising from social categorization, intergroup bias, negative stereotypes, and token status may induce ethnic minority (EM) CEOs to overcompensate by engaging in more aggressive risk-taking in order to signal competence (Kanter 1977), thereby increasing firm risk. However, prior literature suggests that such pressures—and the behavioural responses they elicit—are unlikely to be uniform across ethnic groups. Moreover, the extent to which elevated firm risk materialises may depend on mitigating mechanisms, including CEO-specific human and social capital, and the broader corporate governance environment. Accordingly, this section builds on Hypothesis 1 by developing and testing additional hypotheses that examine whether the effect of EM CEOs on firm risk varies across ethnicities and is contingent upon CEO characteristics and governance structures.

4.3.1 CEO ethnicities in navigating firm risk

Numerous authors have highlighted workplace biases against EM employees. However, discrimination levels may differ among various ethnic groups. Previous research indicates that minority stigma, based on factors like citizenship, accent, and skill, varies in intensity across different ethnic groups (Hosoda et al. 2011).

For instance, in the US, Asian Americans are often perceived as the “model minority,” enjoying success and occupying managerial and professional positions predominantly (McGowan and Lindgren 2006; Taylor and Stem 1997). In contrast, African Americans and Hispanic Americans are more likely than Whites and Asian Americans to face discouragement when seeking capital from financial institutions (Goenner 2023; Neville et al. 2018).

⁶ We thank the anonymous reviewer for raising the important question of whether the documented effect is driven by the national culture of EM CEOs rather than by tokenism or social isolation. In unreported analyses, following Bilyay-Erdogan et al. (2023) and Jiang et al. (2024), we conduct a two-step channel analysis to examine whether EM CEOs’ cultural characteristics (e.g., individualism, uncertainty avoidance, power distance, harmony, embeddedness, and hierarchy) mediate the relationship between minority status and firm risk. The first-stage results are null, indicating that EM CEOs are not systematically characterized by these cultural traits, which may partly reflect that nationality-based classifications do not always capture ancestral or minority backgrounds (e.g., a naturalised Asian CEO in the UK would be classified as British). While some cultural dimensions are individually associated with firm risk, our analysis shows that they do not operate as a channel through which minority CEOs influence firm risk.

Research on a similar note is scarce or non-existent in a European context. Nevertheless, this underscores the importance of avoiding the blanket treatment of all minorities as a single homogeneous group (Ursel et al. 2023).

Accordingly, in addition to our primary hypotheses, we propose the following supplementary hypothesis:

H_{1a} The effect of an EM CEO on firm risk differs across ethnic groups.

Building on our discussion for Hypothesis 3, culturally distant and “unfriendly” boards (Adams and Ferreira 2007) may exert greater scrutiny and monitoring over EM CEOs compared to culturally similar boards (Thams and Rickley 2023). However, prior research suggests that discrimination and social categorisation pressures differ across ethnic groups (e.g., Hosoda et al. 2011), implying that the intensity and effectiveness of board monitoring may not be uniform for all EM CEOs. Accordingly, the effect of CEO ethnicity — specifically Asian, Black, Middle Eastern, or Hispanic — on firm risk is likely contingent upon the degree of cultural distance between the CEO and the board.

H_{1b} The degree of cultural distance between the board and an Asian, Black, Middle Eastern or Hispanic CEO moderates the relationship between the CEO ethnicity and firm risk.

To address the above, we re-estimate Eqs. (1) and (2) by substituting the presence of an EM CEO with their particular ethnicity, namely Asian, Black, Middle Eastern or Hispanic⁷.

$$\begin{aligned} \text{Firm risk}_{it} = & \beta_0 + \beta_1 \text{Asian CEO}_{it} + \beta_2 \text{Black CEO}_{it} + \beta_3 \text{Middle Eastern CEO}_{it} \\ & + \beta_4 \text{Hispanic CEO}_{it} + \beta_5 \text{CEO_board CD}_{it} + \text{CEO controls}_{it} \\ & + \text{Board controls}_{it} + \text{Firmcontrols}_{it} + fe \end{aligned} \quad (3)$$

$$\begin{aligned} \text{Firm risk}_{it} = & \beta_0 + \beta_1 \text{Asian CEO}_{it} + \beta_2 \text{Black CEO}_{it} + \beta_3 \text{Middle Eastern CEO}_{it} \\ & + \beta_4 \text{Hispanic CEO}_{it} + \beta_5 \text{CEO_board CD}_{it} + \beta_6 \text{Asian CEO}_{it} * \text{CEO_board CD}_{it} \\ & + \beta_7 \text{Black CEO}_{it} * \text{CEO_board CD}_{it} + \beta_8 \text{Middle Eastern CEO}_{it} * \text{CEO_board CD}_{it} \\ & + \beta_9 \text{Hispanic CEO}_{it} * \text{CEO_board CD}_{it} + \text{CEO controls}_{it} + \text{Board controls}_{it} \\ & + \text{Firmcontrols}_{it} + fe \end{aligned} \quad (4)$$

where i = firm and t = year.

This analysis allows us to determine whether the mechanisms influencing firm risk are consistent or varied across these groups. Panel A of Table 4 indicates that only Asian ($B=6.80$, $p<0.01$) and Middle Eastern ($B=4.82$, $p<0.05$) CEOs significantly contribute towards increasing firm risk. Interestingly, Panel B further reveals that heightened scrutiny and board oversight from a culturally distant board will significantly decrease firm risk when the CEO is of Asian (ASIAN#CEO_BOD, $B = -13.40$, $p<0.05$) or Middle Eastern (MIDDLE#CEO_BOD, $B=-6.80$, $p<0.01$) background. However, heightened board monitoring appears to elevate firm risk when the CEO is of Black or Hispanic background, although this relationship lacks statistical significance.

⁷ We utilize the aforementioned facial recognition technology to classify minority CEOs in the sample into various ethnicities commonly identified in prior literature (e.g. Ghavami and Peplau 2013; Ursel et al. 2023), namely, Asian, Black, Hispanic, and Middle Eastern.

Table 4 CEO ethnicities, CEO-board CD and moderation on firm risk

Feasible generalised least squares regression		
Dependent variable = Annualised standard deviation of monthly stock returns over 12 months (SD_MNTH)		
	Panel A	Panel B
Asian	0.0680*** (0.0159)	0.0880** (0.0347)
Black	0.0144 (0.0249)	-0.00671 (0.0343)
Middle	0.0482** (0.0198)	0.0922*** (0.0206)
Hispanic	0.0104 (0.0148)	0.00878 (0.0171)
Ceo_Bod	-0.0008 (0.0018)	0.0001 (0.0019)
Asian#CEO_Bod		-0.1340** (0.0559)
Black#CEO_Bod		0.0052 (0.0072)
Middle#CEO_Bod		-0.0680*** (0.0135)
Hispanic#CEO_Bod		0.0019 (0.0086)
Constant	0.2460*** -0.0509	0.2400*** -0.0507
CEO controls	Yes	Yes
Board controls	Yes	Yes
Firm controls	Yes	Yes
Industry FE	Yes	Yes
Country FE	Yes	Yes
Year FE	Yes	Yes
Observations	2,268	2,268

This table reports specification (3) and (4) in Panel A and B respectively. The dependent variable is the overall firm risk proxied by the with-in firm over-time variability in stock performance calculated as annualized standard deviation of monthly stock returns over 12 months. The coefficients are estimated based on feasible generalized least squares (FGLS) regression. Industry, country and year fixed effects are included in the model. Standard errors are shown in parentheses

***, ** indicate significance at the 10%, 5% and 1% level respectively. All the variables are defined in Appendix I

4.3.2 Inimitable characteristics of EM CEOs

According to the resource-based view (Barney 1991), CEOs with rare and inimitable characteristics can enhance firm value (Cook and Glass 2015; Hill et al. 2015; Ursel et al. 2023). EM CEOs bring distinct educational backgrounds, experiences, social networks and diverse perspectives to a firm, enriching leadership positions (Cook and Glass 2015; Ursel et al. 2023).

Moreover, considering the challenges faced by female and EM executives in overcoming barriers (Bertrand and Hallock 2001; Blau and Devaro 2007; Yap and Konrad 2009) and experiencing disparate treatment (Dreher et al. 2011; Rudman et al. 2012; West et al. 2012)

on their journey to executive positions, successful CEOs from these groups likely possess exceptional abilities and resilience in dealing with adversity (Hill et al. 2015). Zweigenhaft and Domhoff (2011) found that underrepresented group members who reached the top were consistently better educated than white men, often holding degrees from prestigious institutions and advanced graduate/professional degrees (Bell and Nkomo 2001). This suggests that minority CEOs' educational credentials expose them to cutting-edge practices (Cook and Glass 2015), enhancing their receptiveness to market changes, investment opportunities, and understanding of the external environment (Farang and Mallin 2018). Therefore, drawing upon resource-based and upper-echelon theories, EM CEOs may demonstrate a particular aptitude in managing firm risks.

On the other hand, previous studies suggest that the social networks of females and ethnic minorities tend to be more diverse compared to those of white males (Ibarra 1993; Miller and Triana 2009), facilitating access to a wider range of information beyond immediate connections (Burt 1992). Such diverse networks enable firms to engage in interactions that help executives overcome decision biases and enhance decision quality (Daft and Lengel 1984). The enhanced information flow from the social networks of EM CEOs and the resulting improved decision-making processes may contribute to reducing firm risk.

Considering the above, we propose the following supplementary hypothesis.

H_{1c} The human and social capital of EM CEOs negatively moderates the relationship between the presence of an EM CEO and firm risk.

We estimate the following econometric specification:

$$\begin{aligned} Firm\ risk_{it} = & \beta_0 + \beta_1 Minority\ CEO_{it} + \beta_2 CEO\ Human\ Capital_{it} \\ & + \beta_3 Minority\ CEO_{it} * CEO\ Human\ Capital_{it} + CEO\ controls_{it} \\ & + Board\ controls_{it} + Firm\ controls_{it} + fe \end{aligned} \quad (5)$$

$$\begin{aligned} Firm\ risk_{it} = & \beta_0 + \beta_1 Minority\ CEO_{it} + \beta_2 CEO\ Social\ Capital_{it} \\ & + \beta_3 Minority\ CEO_{it} * CEO\ Social\ Capital_{it} + CEO\ controls_{it} \\ & + Board\ controls_{it} + Firm\ controls_{it} + fe \end{aligned} \quad (6)$$

where i =firm and t =year.

The above analyses help us to evaluate whether human capital (proxied by CEO experience (tenure) in the firm or the number of educational qualifications) and social capital (proxied by CEO networks) possessed by minority ethnic CEOs may moderate the relationship between their presence and firm risk.

Findings in Panel A of Table 5 suggest that the human capital, represented by the number of educational qualifications, held by EM CEOs (MINORITY#QUALS) significantly contributes to reducing otherwise heightened firm risk ($B = -1.24, p < 0.05$). However, panel B and C reveal that the moderating effects of CEO tenure and networks are not statistically significant.

4.3.3 The impact of a good corporate governance system

Previous research has established a direct link between corporate governance and firm risk. Corporate governance is argued to mitigate managerial opportunism and excessive

Table 5 EM CEOs and their human/social capital on firm risk

Feasible generalised least squares regression			
Dependent variable = Annualised standard deviation of monthly stock returns over 12 months (SD_MNTH)			
	Panel A	Panel B	Panel C
Minority	0.0315** (0.0142)	0.0034 (0.0115)	0.0119 (0.0108)
Quals	0.0028 (0.0019)	0.0009 (0.0018)	0.0008 (0.0017)
Tenure	-0.0008** (0.0003)	-0.0008*** (0.0003)	-0.0008*** (0.0003)
Network	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)
Minority#Quals	-0.0124** (0.0053)		
Minority#Tenure		0.0005 (0.0010)	
Minority#Network			0.0000 (0.0000)
Constant	0.2360*** (0.0319)	0.2450*** (0.0322)	0.2470*** (0.0322)
CEO controls	Yes	Yes	Yes
Board controls	Yes	Yes	Yes
Firm controls	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Country FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	4,699	4,699	4,699

This table reports specifications (5) and (6). Panel A and B outline the results for specification (5) using two proxies for human capital, namely CEO education (no. of qualifications) and CEO tenure in the firm. Panel C reports findings for specification (6) using CEO networks as the proxy for social capital. The dependent variable is the overall firm risk proxied by the with-in firm over-time variability in stock performance calculated as annualized standard deviation of monthly stock returns over 12 months. The coefficients are estimated based on feasible generalized least squares (FGLS) regression. Industry, country and year fixed effects are included in the model. Standard errors are shown in parentheses

*, **, *** indicate significance at the 10%, 5% and 1% level respectively. All the variables are defined in Appendix I

risk-taking (Balachandran and Faff 2015), consequently reducing firm risk (Hatane et al. 2019; Mathew et al. 2018). For example, larger boards may bring diverse resources and perspectives to decision-making, consistent with the resource-based view, but they may also introduce conflicts, communication challenges, and slower decision-making processes, as highlighted by agency views of corporate governance (Jensen 1993; Yermack 1996). Similarly, greater board independence can constrain rash or self-serving decisions by CEOs (Jensen 1993), whereas CEO duality may concentrate power in the CEO's hands, potentially leading to riskier strategic decisions (Yang and Zhao 2014).

However, it remains an open question whether the effects of corporate governance—such as board size, board independence, and CEO duality—effectively influence firm risk in the presence of an EM CEO.

Thus, we conjecture the following:

H_{1d} The quality of corporate governance moderates the relationship between the presence of an EM CEO and firm risk.

Employing the econometric specification outlined below, we investigate whether the relationship between the presence of an EM CEO and firm risk is contingent upon the quality of corporate governance, measured individually by several variables, namely, board size, board independence and CEO duality.

$$\begin{aligned} Firm\ risk_{it} = & \beta_0 + \beta_1 Minority\ CEO_{it} + \beta_2 CG\ Variable_{it} \\ & + \beta_3 Minority\ CEO_{it} * CG\ Variable_{it} + CEO\ controls_{it} \\ & + Board\ controls_{it} + Firm\ controls_{it} + fe \end{aligned} \quad (7)$$

where i =firm and t =year.

The results in Panel A of Table 6 indicate that board size (MINORITY#TOT_DIR) negatively moderates the aforesaid relationship ($B = -0.49$ $p < 0.05$). This suggests that a larger board negatively moderates the effect of the presence of an EM CEO, leading to lower firm risk. Larger boards tend to engage in more compromise to achieve consensus, resulting in less extreme decisions and lower variability in corporate performance (Cheng 2008; Wang 2012). This effect can help to negatively moderate the impact of an EM CEO on firm risk, by fostering more balanced decision-making and reducing the likelihood of overly aggressive risk-taking behaviours of EM CEOs, thus reducing overall firm risk.

4.4 Robustness Checks

4.4.1 Addressing CEO-firm matching problem and other possible sources of endogeneity

The attributes of the top management team are not exogenous variables (Hermalin and Weisbach 2003); instead, they are selected by firms to align with their operating and information environments, as well as the bargaining power of various stakeholders (Hermalin and Weisbach 1998; Sila et al. 2016). Moreover, CEOs and firms are not randomly matched; rather, firms may select CEOs to match the values of the existing leadership (Pan et al. 2017). Some prior literature suggests that white and minority leaders may be differentially chosen for leadership positions depending on firm performance (Cook and Glass 2014a, b). Therefore, it is imperative to consider the fact that the appointment of an EM CEO or a culturally distant director is a choice made by the firm and therefore endogenous.

Therefore, to accurately estimate the relationship, at least two alternative explanations need to be considered, firstly, the association may be driven by omitted variables, and secondly, by reverse causality. Wintoki et al. (2012) posit that reverse causality issues in governance research tend to be dynamic, i.e. the current minority appointments are influenced by past realization of firm risk. This is known as dynamic endogeneity. This is because the appointment decision is made before the next realization of firm risk. Past risk measures will be incorporated in the information set deliberated by the incumbent board when making appointment decisions.

To account for the unobserved heterogeneity and reverse causality in a dynamic nature, the following dynamic empirical model is developed.

Table 6 EM CEOs, Corporate Governance and Moderation on Firm Risk

Feasible generalised least squares regression			
Dependent variable = Annualised standard deviation of monthly stock returns over 12 months (SD_MNTH)			
	Panel A	Panel B	Panel C
Minority	0.0609** (0.0245)	-0.0043 (0.0212)	-0.0058 (0.0143)
Tot_Dir	-0.0027*** (0.0006)	-0.0029*** (0.0006)	-0.0030*** (0.0006)
Board_Ind	-0.0258** (0.0107)	-0.0266** (0.0108)	-0.0257** (0.0107)
Dual	-0.0083 (0.0051)	-0.0084 (0.0051)	-0.0078 (0.0052)
Minority#Tot_Dir	-0.0049** (0.0021)		
Minority#Board_Ind		0.0239 (0.0425)	
Minority#Dual			0.0197 (0.0181)
Constant	0.2420*** (0.0321)	0.2430*** (0.0322)	0.2460*** (0.0320)
CEO controls	Yes	Yes	Yes
Board controls	Yes	Yes	Yes
Firm controls	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Country FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	4,699	4,699	4,699

This table reports specifications (7). Panel A, B and C show results by employing board size (total directors), board independence and CEO duality respectively as proxies for corporate governance. The dependent variable is the overall firm risk proxied by the with-in firm over-time variability in stock performance calculated as annualized standard deviation of monthly stock returns over 12 months. The coefficients are estimated based on feasible generalized least squares (FGLS) regression. Industry, country and year fixed effects are included in the model. Standard errors are shown in parentheses

*** ** * indicate significance at the 10%, 5% and 1% level respectively. All the variables are defined in Appendix I

$$Firm\ risk_{it} = \beta_0 + \beta\ Monority\ CEO_{it} + X_{it}\gamma + \sum_{s=1}^p (\delta_s Firm\ Risk_{it-s}) + \{\mu_i + \varepsilon_{it}\} \quad (8)$$

This dynamic empirical model with fixed effects infer that current firm risk is affected by the presence of an EM CEO, all aforementioned control variables indicated by X_{it} , unobserved heterogeneity (through μ_i) and by past realizations of firm risk (through Firm Risk i t-1, Firm Risk i t-2, ..., Firm Risk i t-s).

A dynamic panel system generalized method of momentum (DPS-GMM) is used to estimate the above model. The empirical model includes dummies for industry, year and country fixed effects. All time-varying independent variables are treated as endogenous except for industry, year and country dummy variables. Endogenous variables are instrumented by three and four of their past values. A higher lag length is chosen because according to (Sila et al. 2016) the number of lags “must be high enough to ensure that the model is dynami-

cally complete such that further information in the past is not related to the expectational error in the data". The results using DPS-GMM (see Table 7) although with weakened statistical significance, are consistent with our previous findings and reveal that the presence of an EM CEO elevates firm risk ($B=3.41$ $p<0.10$).

4.4.2 Transition-based staggered DiD and heterogeneity-robust dynamic event-study

To complement the dynamic panel system GMM approach in Sect. 4.4.1, we implement a transition-based staggered difference-in-differences (DiD) design in the spirit of Huang and Kisgen (2013)⁸.

We define the transition year, g_i , as the first year in which the firm i is observed to switch into minority CEO status—that is, the earliest year t such that $Minority_{it} = 1$ while $Minority_{i,t-1} = 0$ (or $Minority_{i,t-1}$ is not observed). Firms with no observed transition during the sample window are treated as never treated. Using this onset definition, we set the treatment-on indicator D_{it} equal to one for treated firms in all years $t \geq g_i$ and zero otherwise. Accordingly, our static DiD regressor is the treated-by-post indicator, $Minority_DID_{it} = 1 \{g_i \text{ observed}\} \times 1 \{t \geq g_i\}$.

In the static transition DiD, we regress firm risk on the treated-by-post indicator $Minority_DID$, include year fixed effects, and the control vector X_{it} , and cluster standard errors at the firm level. The coefficient on $Minority_DID$ is positive and statistically significant ($\hat{\beta} = 0.0371$, $p = 0.021$) (see panel A of Table 8).

A key concern in staggered-adoption settings is that conventional TWFE event-study coefficients can be difficult to interpret when treatment effects are heterogeneous or dynamic ("bad comparisons"; Baker et al. 2022, p.371⁸). Accordingly, in Panel B1 we report dynamic effects using the Sun–Abraham interaction-weighted (IW) event-study estimator with never-treated firms as a clean control cohort. Treatment-timing diagnostics indicate a front-loaded staggered adoption pattern, with a substantial pool of clean controls (approximately 88% of firms are never treated over the sample window) and thinner support in distant leads/lags, motivating binned pre-period indicators and cautious interpretation of coefficients far from the transition.

To study dynamic effects around the transition, we index time relative to treatment onset using the event-time variable $k = t - g_i$ and normalize the year immediately prior to the transition ($k = -1$) as the omitted reference period. We then estimate an event-study specification that replaces the single post indicator with event-time indicators—i.e., the indicator function $1\{t - g_i = k\}$ for leads and lags—so that the coefficients θ_k trace the evolution of firm risk before and after the transition, conditional on year fixed effects and the control vector X_{it} .

Across dynamic specifications, the post-transition pattern is concentrated early and is most pronounced around the first post-transition year. In the covariate-light IW benchmark ($N \approx 9,959$), the first post-transition coefficient is positive and statistically significant ($g1 = 0.0368$, $p = 0.046$), while the binned pre-period test shows no evidence of pre-trends ($p = 0.873$). We also assess pre-trends via a joint test that the pre-transition lead coefficients are jointly zero (e.g., $H_0 : \theta_{-3} = \theta_{-2} = 0$), obtaining inferences consistent with the binned pre-period diagnostic. In the covariate-augmented IW specification ($N \approx 4,898$), the first post-transition effect remains positive and statistically significant

⁸ We thank the anonymous reviewer for this insightful suggestion.

Table 7 Addressing CEO-firm matching problem and other possible sources of endogeneity via a Dynamic Panel System GMM Regression

Dynamic panel system GMM regression	
Dependent variable=Annualised standard deviation of monthly stock returns over 12 months (SD_MNTH)	
Minority	0.0341* (0.0204)
CEO_Bod	0.0016 (0.0029)
L.sd_mnthly	0.0072*** (0.0003)
<i>CEO Characteristics</i>	
Dual	-0.0123 (0.0107)
Tenure	-0.0006 (0.0009)
Age	0.0005 (0.0007)
Quals	0.0003 (0.0042)
Network	0.0000 (0.0000)
Gender	0.0618** (0.0312)
<i>Board Characteristics</i>	
Tot_Dir	-0.0036*** (0.0013)
Board_Ind	-0.0570** (0.0263)
<i>Firm Characteristics</i>	
Emp	0.0000 (0.0000)
Growth	-0.0518*** (0.0115)
Lev	0.0515** (0.0251)
Inv	-0.0003 (0.1140)
Industry FE	Yes
Country FE	Yes
Year FE	Yes
Observations	2,066
AR(1)	-14.55***

Table 7 (continued)

Dynamic panel system GMM regression	
Dependent variable = Annualised standard deviation of monthly stock returns over 12 months (SD_MNTH)	
AR(2)	-0.199
Sargan Test	371.8

This table reports specification (8). The dependent variable is the overall firm risk proxied by the within firm over-time variability in stock performance calculated as annualized standard deviation of monthly stock returns over 12 months. The coefficients are estimated based on DPS-GMM regression. The model includes year, industry and country fixed effects. All time-varying independent variables are treated as endogenous. Endogenous variables are instrumented by three to four of their past values. Standard errors are shown in parentheses

***, **, * indicate significance at the 10%, 5% and 1% level respectively. All the variables are defined in Appendix I

($g1 = 0.0510$, $p = 0.03$), with subsequent coefficients attenuating and estimated less precisely ($g2 = 0.0414$, $p = 0.074$; $g3 = 0.0493$, $p = 0.094$) (see Panel B2 of Table 8).

We further probe robustness using (i) a persistence restriction requiring minority CEO status to remain in place for at least two consecutive post-transition years ($t = g_i + 1$ and $t = g_i + 2$) and (ii) a falsification test confined to the pre-transition period. Under the persistence restriction, results remain qualitatively similar (static: $\hat{\beta} = 0.0426$, $p = 0.021$; IW: $g1 = 0.0576$, $p = 0.052$) (see Panel C1 and C2 of Table 8). In the pre-period-only falsification test (assigning a fake post-period beginning at $g_i - 2$ while restricting treated firms to $t < g_i$), the placebo coefficient is statistically insignificant ($\hat{\beta}_{placebo} = 0.0138$, $p = 0.655$), consistent with no detectable mechanical pre-trend (see Panel D of Table 8). We also compute group-time effects using a Callaway–Sant’Anna-style approach as a complementary check, noting that unbalanced panels can reduce precision due to the requirement for balanced pairs.

Taken together, these analyses address the concern that staggered timing and dynamic/heterogeneous effects can complicate the interpretation of TWFE DiD (Baker et al. 2022).

At the same time, while Baker-style remedies primarily address estimator interpretability under staggered timing; they do not establish that CEO transition timing is exogenous. Accordingly, we interpret the DiD evidence as robustness/triangulation alongside the paper’s primary endogeneity strategy (system GMM), rather than as an exogenous-shock identification design.

4.4.3 Addressing sample selection bias

This section discusses the sample selection bias “that results from employing non-randomly selected samples to estimate behavioural relationships” (Heckman 1979, p. 153). Firm’s Tobin’s Q is employed, as the exclusion restriction, inspired by the study of Cheng (2008). As indicated by the summary statistics in Table 2, the sample appears to be somewhat skewed towards larger firms. Additionally, since this study focuses solely on companies listed on the principal stock exchange of a specific country, there is a concern regarding the potential selection bias favouring successful (i.e., more valuable) firms being included in the sample. Therefore, to address the possible sample selection bias, we base our regression model on a Heckman (maximum likelihood) two-stage procedure and Table 9 portrays the results.

Table 8 Addressing CEO-firm matching problem and other possible sources of endogeneity via transition-based DiD, heterogeneity-robust event study

Transition-based DiD, heterogeneity-robust event study, and ideology robustness	
Dependent variable: Annualised standard deviation of monthly stock returns over 12 months (SD_MNTH)	
Panel A. Static transition DiD	
MINORITY_DID	0.0371** (0.0161)
CEO_BOD_HOF	0.00235 (0.00295)
<i>Year FE</i>	Yes
<i>CEO/Board/Firm controls</i>	Yes
<i>SE clustering</i>	Firm level
<i>No. of Observations</i>	4,898
<i>No. of clusters</i>	638
Panel B. Sun–Abraham IW event study (never-treated control cohort)	
B1. Covariate-light benchmark	
<i>g_pre</i> ($k \leq -2$)	0.00283 (0.01769)
<i>g0</i> ($k=0$)	-0.00666 (0.01948)
<i>g1</i> ($k=+1$)	0.0368** (0.01841)
<i>g2</i> ($k=+2$)	0.0271 (0.02084)
<i>g3</i> ($k=+3$)	0.00150 (0.02171)
<i>Year FE</i>	Yes
<i>CEO/Board/Firm controls</i>	No
<i>SE clustering</i>	Firm level
<i>Control cohort</i>	Never-treated
<i>No. of Observations</i>	9,959
<i>No. of clusters</i>	1,034
B2. Covariate-augmented (adds CEO/board/firm controls)	
<i>g_m2</i> ($k \leq -2$)	0.0330 (0.03291)
<i>g0</i> ($k=0$)	-0.00658 (0.02896)
<i>g1</i> ($k=+1$)	0.0510** (0.02344)
<i>g2</i> ($k=+2$)	0.0414* (0.02314)
<i>g3</i> ($k=+3$)	0.0493* (0.02939)
<i>Year FE</i>	Yes
<i>CEO/Board/Firm controls</i>	Yes
<i>SE clustering</i>	Firm level
<i>Control cohort</i>	Never-treated
<i>No. of Observations</i>	4,898
<i>No. of clusters</i>	638

Table 8 (continued)

Transition-based DiD, heterogeneity-robust event study, and ideology robustness	
Dependent variable: Annualised standard deviation of monthly stock returns over 12 months (SD_MNTH)	
Panel C1. Persistence restriction (minority CEO remains at $t+1$ and $t+2$)	
C1. Static DiD: MINORITY_DID	0.0426** (0.01850)
<i>Year FE</i>	Yes
<i>CEO/Board/Firm controls</i>	Yes
<i>SE clustering</i>	Firm level
<i>No. of Observations</i>	4,691
<i>No. of clusters</i>	612
Panel C2. IW event study (persistence sample; never-treated control cohort)	
g_{pre} ($k \leq -2$)	0.0405 (0.02539)
g_0 ($k=0$)	-0.00195 (0.02937)
g_1 ($k=+1$)	0.0576* (0.02961)
g_2 ($k=+2$)	0.0429* (0.02555)
g_3 ($k=+3$)	0.0449 (0.03642)
<i>Year FE</i>	Yes
<i>CEO/Board/Firm controls</i>	Yes
<i>SE clustering</i>	Firm level
<i>Control cohort</i>	Never-treated
<i>No. of Observations</i>	4,691
<i>No. of clusters</i>	612
Panel D. Pre-period-only placebo (fake post at $g_i - 2$; restrict $t < g_i$)	
did_fake	0.0138 (0.03079)
<i>Year FE</i>	Yes
<i>CEO/Board/Firm controls</i>	Yes
<i>SE clustering</i>	Firm level
<i>No. of Observations</i>	4,418
<i>No. of clusters</i>	591

This table reports robustness tests based on a transition-based staggered difference-in-differences (DiD) design in which the treatment year g_i is defined as the first observed 0→1 transition into minority CEO status. Panel A reports a static transition DiD regression in which the key regressor is the treated-by-post indicator (MINORITY_DID), and the dependent variable is firm risk, proxied by the annualised standard deviation of monthly stock returns over 12 months (SD_MNTH). Panel B reports dynamic effects from a heterogeneity-robust event study using the Sun–Abraham interaction-weighted (IW) estimator, with never-treated firms as the control cohort; Panel B1 is a covariate-light benchmark, and Panel B2 additionally includes CEO-, board-, and firm-level controls. Panel C repeats the static DiD and IW event-study under a persistence restriction requiring minority CEO status to remain in place at $t+1$ and $t+2$. Panel D reports a pre-period-only placebo test, assigning a fake post-period beginning at $g_i - 2$ while restricting treated firms to $t < g_i$. Year fixed effects are included as indicated. Standard errors are clustered at the firm level. *, **, *** indicate significance at the 10%, 5%, and 1% level respectively. All variables are defined in Appendix I

Table 9 denotes the results of Heckman two-stage procedure. Panel A illustrates the results of the Heckman 1st stage and panel B portrays 2nd stage results. The results of the selection equation illustrated in panel A confirms that Tobin's Q is statistically significant, at 1% significance level, implying that the likelihood of a firm to be selected to the sample appears to be a function of Tobin's Q. However, the negative association is noteworthy and contradicts with the assumption that only successful (i.e. more valuable) firms are selected into the sample. Panel B infers that minority CEOs and the CD between the CEO and the board are statistically significant factors associated with firm risk, even after accounting for sample selection bias based on firm value.

4.4.4 Employing alternative definitions

In unreported analysis, alternative dependent variables are employed to specification (1) and (2) above to increase robustness. First, stock performance volatility is recalculated using the annualized standard deviation of quarterly stock returns over 12 months (Cheng 2008; Giannetti and Zhao 2015; Sila et al. 2016; Wang 2012). Second, we use leverage (Total Debt/Total Assets) to capture financial risk (e.g. Cheng 2008; Wang et al., 2012; Chui et al. 2002; Zheng et al. 2012) and capital expenditure scaled by assets as a proxy for operational risk-taking, following prior literature (Cheng 2008; Wang et al., 2012; Yung and Chen 2018)⁹.

Our results remain robust despite the use of an alternative dependent variable.

The selection of and restricting to a single cultural framework, arguably, remains arbitrary to some extent. Therefore, in unreported analysis, the initial analysis with Hofstede's dimensions is complemented with Schwartz framework, to measure CDs¹⁰. Our results are generally consistent with previous findings.

Moreover, to overcome several weaknesses of the KSI measure (see Konara and Mohr 2019 and Berry et al. 2010 for a detailed discussion), in unreported analysis, the standardized Euclidean Index, recommended by Konara and Mohr (2019) is employed to measure CDs. The results remain robust despite the use of an alternative CD measure¹¹.

5 Implications and conclusion

Previous research indicates that EM individuals, often perceived as outgroup members, encounter differential treatment compared to ingroup counterparts (Hewstone et al. 2002). They are often subjected to negative stereotypes, portraying them as less competent leaders compared to white men (Carton and Rosette 2011; Rosette et al. 2008), which impedes their ascent to corporate leadership positions (Cannella et al. 2009; Hill et al. 2015; Thams and Rickley 2023; Ursel et al. 2023). Upon attaining leadership roles, they face heightened performance pressures (Bertrand et al. 2021; Haslam and Ryan 2008; Ryan and Haslam 2007), often feeling tokenized and

⁹ We thank the anonymous reviewer for this suggestion.

¹⁰ Beugelsdijk et al. (2018) contend that different frameworks, such as Hofstede and Schwartz, capture very different facets of culture and institutions.

¹¹ In unreported analysis we conducted all the above robustness checks, whilst including the interaction term between the EM CEO and CEO-board CD in the model. Although the direction of the association between the interaction term and firm risk, remains consistent with our main findings, it no longer retains statistical significance.

Table 9 Addressing sample selection bias

Heckman two stage selection model (Maximum likelihood)	
Panel A: Probit estimates on sample firms being highly valued (first-stage Heckman results)	
Dependent variable: Equals one if the chosen firm is a high value one	
tobin_q	-0.0848*** (0.0251)
Minority	-0.0651 (0.1620)
CEO_Bod	-0.0244 (0.0268)
<i>Firm characteristics</i>	
firm_lev	0.0933 (0.2210)
firm_inv	0.3660 (1.0220)
Constant	1.9150*** (0.0986)
Panel B: 2nd Stage Heckman Results	
Dependent Variable=annualized standard deviation of monthly stock returns over 12 months (SD_Mnthly)	
Minority	0.0374*** (0.0119)
CEO_Bod	0.0047** (0.0021)
<i>Firm characteristics</i>	
firm_lev	-0.0293* (0.0150)
firm_inv	0.3210*** (0.0688)
Constant	0.2940*** (0.0058)
Observations	3,080
Wald chi2(2)	40.43***

Note: This table bases the regression model on a standard two-step Heckman procedure. Panel A estimates the likelihood that only successful firms with higher Tobin's Q value are included in the sample and the dependent variable equals one if the chosen firm is a high-valued firm. Panel B depicts the results after controlling for self-selection bias, in which the dependent variable is the overall firm risk proxied by the with-in firm over-time variability in stock performance calculated as annualized standard deviation of monthly stock returns over 12 months. Standard errors are shown in parentheses

*, **, *** indicate significance at the 10%, 5% and 1% level respectively. All the variables are defined in Appendix I

under intense scrutiny (Ely and Thomas 2020; Kanter 1977; Thams and Rickley 2023; Ursel et al. 2023). Consequently, there is a need to work harder to prove competence, which amplifies performance pressure (Kanter 1977). This pressure leads to a tendency to overcompensate by taking excessively aggressive risks (Kanter 1977), thus increasing overall firm risk. Our empirical analysis confirms this pattern.

Nevertheless, not all EM CEOs equally contribute to the overall increase in firm risk. Our supplementary analysis unveils that only CEOs of Asian and Middle Eastern descent notably escalate firm risk. This disparity challenges the conventional approach of treating

all EM CEOs uniformly. Our findings, in alignment with previous research (e.g. Ursel et al. 2023), underscore the risk of overlooking crucial distinctions when ethnicities are not disaggregated. Hence, we recommend further research in this area, particularly within a European context given the minimal study in this realm, to explore the reasons for the observed disparity among different ethnicities.

The above findings carry several significant practical implications. As highlighted, EM CEOs, on average, increase overall firm risk due to social categorization processes, biases, stereotypes, and their token status. Hence, it is crucial for directors, investors, and other stakeholders to acknowledge the social stigma surrounding minority CEOs. Understanding the pressure and challenges faced by EM CEOs is imperative, mainly for two reasons: firstly, to foster a supportive workplace environment from the executive's perspective and secondly, to assist the firm in managing the overall firm risk to maintain an acceptable level.

However, mere acknowledgment is frequently insufficient. Directors must take proactive measures to address personal biases and modify their behaviours (Gino and Coffman 2021). These measures might entail implementing standardized CEO evaluations or even incorporating software or artificial intelligence to facilitate impartial assessments of CEO performance (Thams and Rickley 2023). Such initiatives aim to ensure that EM CEOs perceive fair treatment and do not experience undue pressure. Additionally, regular boardroom dialogues concerning implicit bias and its origins and ramifications could prove beneficial.

As our results illustrate, an additional significant implication of our research is the acknowledgment of the 'liability of foreignness' (Zaheer 1995). The liability of foreignness pertaining to individuals, also extends to corporate elites and this finding resonates with previous literature (Bertrand et al. 2021; Dodd et al. 2022; Hernandez and Kulchina 2020; Mata and Alves 2018).

However, conversely, in a globalized business environment, organizations can benefit from the diverse talents of EM CEOs. Our results, consistent with upper echelons theory and resource-based views, reveal that a firm may benefit by having a CEO belonging to an EM with higher educational qualifications. CEOs from EM backgrounds bring unique educational backgrounds, experiences, social networks, and perspectives, enriching leadership positions (Cook and Glass 2015; Maddux et al. 2021; Ursel et al. 2023). From a practical perspective, enhancing the human resources of EM CEOs is more feasible than changing prevailing stereotypes, offering opportunities for promoting equality.

Boards can also play a pivotal role in capitalizing on these benefits. In cases where a firm appoints an EM CEO, mitigating overall firm risk can be achieved by ensuring that the majority of the board of directors comes from a different cultural background than the CEO. This culturally distant board can effectively monitor CEO behaviour, thereby contributing to a reduction in overall firm risk.

Moreover, having a large board can also contribute to decreasing overall firm risk, even if the CEO is from an EM background. Research indicates that larger boards tend to engage in more compromise to achieve consensus, resulting in less extreme decisions and lower variability in corporate performance (Cheng 2008; Wang 2012). This effect can serve to mitigate the impact of an EM CEO on overall firm risk by promoting more balanced decision-making and reducing the likelihood of excessively aggressive risk-taking behaviours. From the perspective of an EM CEO, this approach would be more accommodating and preferable than increased scrutiny exercised by a culturally distant board.

The current study also holds practical significance amidst recent endeavours to enhance diversity in corporate leadership. While efforts from activists, media, regulatory bodies,

and employees predominantly target reducing discrimination during the hiring process, less emphasis is placed on addressing potential discriminatory patterns that emerge after a CEO candidate is selected. Our research underscores the critical need for stakeholders to expand their efforts against unjust differential treatment. Despite the rising number of appointments of EM CEOs in recent years, further action is required to ensure equitable treatment and to ensure that EM CEOs perceive and experience this equality.

In conclusion, integrating diversity and inclusion considerations, along with fairness in employment, into business practices is paramount. Doing so not only fosters innovation, enhances corporate reputation, and attracts talent, but also helps manage risks and meet stakeholder expectations in today's business environment shaped by heightened calls for Environmental, Social, and Governance (ESG) imperatives. Moreover, such integration enhances corporate governance and social responsibility and contributes to sustainable development. For instance, by actively promoting the inclusion of EM CEOs and addressing the challenges they face, organizations can contribute to SDG 10 (Reduced Inequalities) and SDG 16 (Peace, Justice, and Strong Institutions). Moreover, recognizing the value of diversity in leadership and mitigating biases aligns with SDG 5 (Gender Equality) and SDG 8 (Decent Work and Economic Growth). Thus, by prioritizing diversity and fairness in employment practices, organizations play a crucial role in fostering a more inclusive and equitable society, thereby contributing significantly to sustainable development. Future research could examine whether minority-female CEOs exhibit distinct patterns of risk-taking compared to their minority-male counterparts, which may shed further light on the interplay between gender, ethnicity, and firm risk.¹²

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s11156-026-01521-w>.

Author contributions Supun Chandrasena and Ranadeva Jayasekera contributed to the study conception and design. Material preparation, data collection, and initial data analysis were performed by Supun Chandrasena. The first draft of the manuscript was written by Supun Chandrasena and supervised by Ranadeva Jayasekera. During the revision stage, Arūnas Burinskas contributed to additional data collection, data analysis, interpretation of results. All authors contributed to drafting sections of the revised manuscript and to responses to reviewer comments. All authors read and approved the final manuscript.

Funding No funding was received for conducting this study.

Data Availability The data that support the findings of this study are available in a data repository.

Declarations

Competing interest The authors have no relevant financial or non-financial interests to disclose.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

¹² We thank the anonymous reviewer for suggestion.

References

- Abebe M, Dadanlar H (2021) From tokens to key players: the influence of board gender and ethnic diversity on corporate discrimination lawsuits. *Hum Relat* 74(4):527–555. <https://doi.org/10.1177/0018726719888801>
- Adams RB, Almeida H, Ferreira D (2005) Powerful CEOs and their impact on corporate performance. *Rev Financ Stud* 18(4):1403–1432. <https://doi.org/10.1093/rfs/hhi030>
- Adams RB, Ferreira D (2007) A theory of friendly boards. *J Finance* LXII(1):217–250
- Adams RB, Funk P (2012) Beyond the glass ceiling : does gender matter ? *Manage Sci* 58(2):219–235. <https://doi.org/10.2307/41406385>
- Ahern KR, Daminelli D, Fracassi C (2015) Lost in translation? The effect of cultural values on mergers around the world. *J Financ Econ* 117(1):165–189. <https://doi.org/10.1016/j.jfineco.2012.08.006>
- Allport GW (1954) *The nature of prejudice*. Addison-Wesley
- Argue AJ, Velema TA (2022) University prestige, cultural distance of the place of education, and wage differences between high-skilled U.S. immigrants with foreign and domestic credentials. *Res Soc Stratification Mob*. <https://doi.org/10.1016/j.rssm.2021.100650>
- Ashforth BE, Mael F (1989) Social Identity Theory and the Organization. *Acad Manage Rev* 14(1). <https://doi.org/10.5465/amr.1989.4278999>
- Bachrach DG, Patel PC, Pratto F (2023) As clear as black and white: racially disparate concerns over career progression for remote workers across racial faultlines. *Bus Soc* 62(6):1145–1172. <https://doi.org/10.1177/00076503221121823>
- Baker AC, Larcker DF, Wang CCY (2022) How much should we trust staggered difference-in-differences estimates? *J Financ Econ* 144(2):370–395. <https://doi.org/10.1016/j.jfineco.2021.09.012>
- Balachandran B, Faff R (2015) Corporate governance, firm value and risk: past, present, and future. *Pac Basin Finance J* 35:1–12. <https://doi.org/10.1016/j.pacfin.2015.07.002>
- Barney J (1991) Firm resources and sustained competitive advantage. *Journal of management*. *J Manage* 17(1):99–120
- BBC (2021) Black bosses ‘shut out’ by ‘vanilla boys’ club’. BBC News
- Bell ELJE, Nkomo SM (2001) *Our separate ways: black and white women and the struggle for professional identity*. harvard business school press
- Berger PG, Ofek E, Yermack DL (1997) Managerial Entrenchment and Capital Structure Decisions. *J Finance* 52(4):1411–1438
- Berry H, Guillén MF, Zhou N (2010) An institutional approach to cross-national distance. *J Int Bus Stud* 41(9):1460–1480. <https://doi.org/10.1057/jibs.2010.28>
- Bertrand M, Hallock KF (2001) The gender gap in top corporate jobs. *Ind Labor Relat Rev* 55(1):3–21. <https://doi.org/10.1177/001979390105500101>
- Bertrand M, Schoar A (2003) Managing with style: the effect of managers on firm policies. *Q J Econ* 118(4):1169–1208
- Bertrand O, Betschinger MA, Moschieri C (2021) Are firms with foreign CEOs better citizens? A study of the impact of CEO foreignness on corporate social performance. *J Int Bus Stud* 52(3):525–543. <https://doi.org/10.1057/s41267-020-00381-3>
- Beugelsdijk S, Ambos B, Nell PC (2018) Conceptualizing and measuring distance in international business research: recurring questions and best practice guidelines. *J Int Bus Stud* 49:1113–1137. <https://doi.org/10.1057/s41267-018-0182-4>
- Bilyay-Erdogan S, Danisman, GO, Demir E (2023) ESG performance and dividend payout: A channel analysis. *Finance Research Letters* 55: 103827 <https://doi.org/10.1016/J.FRL.2023.103827>
- Blau FD, Devaro J (2007) New evidence on gender differences in promotion rates: an empirical analysis of a sample of new hires. *Ind Relat* 46(3):511–550. <https://doi.org/10.1111/j.1468-232X.2007.00479.x>
- Brinkhuis E, Scholtens B (2018) Investor response to appointment of female CEOs and CFOs. *Leadersh Q*. <https://doi.org/10.1016/j.leaqua.2017.08.002>
- Bureau of Labor Statistics - U.S. Department of Labor (2021) *Foreign-born workers: labor force characteristics — 2020*
- Burt RS (1992) *Structural Holes: The social structure of competition*. Harvard University Press. <https://ebookcentral-proquest-com.elib.ted.ie>
- Cain MD, McKeon SB (2016) CEO personal risk-taking and corporate policies. *J Financ Quant Anal* 51(1):139–164. <https://doi.org/10.1017/S0022109016000041>
- Cannella B, Finkelstein S, Hambrick DC (2009) Strategic leadership: theory and research on executives, top management teams, and boards. In *Strategic Leadership: Theory and Research on Executives, Top Management Teams, and Boards*. <https://doi.org/10.1093/acprof:oso/9780195162073.001.0001>

- Cao J, Ellis KM, Li M (2018) Inside the board room: the influence of nationality and cultural diversity on cross-border merger and acquisition outcomes. *Rev Quant Financ Acc* 53:1031–1068. <https://doi.org/10.1007/s11156-018-0774-x>
- Carter DA, Simkins BJ, Simpson WG (2003) Corporate governance, board diversity, and firm value. *Financ Rev* 38:33–53. <https://doi.org/10.1111/1540-6288.00034>
- Carton AM, Rosette AS (2011) Explaining bias against black leaders: integrating theory on information processing and goal-based stereotyping. *Acad Manage J*. <https://doi.org/10.5465/amj.2009.0745>
- Cheng S (2008) Board size and the variability of corporate performance. *J Financ Econ* 87:157–176. <https://doi.org/10.1016/j.jfineco.2006.10.006>
- Child J (1974) Managerial and organizational factors associated with company performance Part I. *J Manage Stud* 11(3):175–189. <https://doi.org/10.1111/j.1467-6486.1974.tb00693.x>
- Chui A, Lloyd AE, Kwok CCY (2002) The determination of capital structure: is national culture a missing piece to the puzzle? *J Int Bus Stud* 33(1):99–127. <https://doi.org/10.1057/palgrave.jibs.8491007>
- Coles JL, Daniel ND, Naveen L (2008) Boards: does one size fit all? *J Financ Econ*. <https://doi.org/10.1016/j.jfineco.2006.08.008>
- Cook A, Glass C (2014a) Above the glass ceiling: when are women and racial/ethnic minorities promoted to CEO? *Strateg Manage J* 35(7):1080–1089. <https://doi.org/10.1002/smj.2161>
- Cook A, Glass C (2015) Do minority leaders affect corporate practice? Analyzing the effect of leadership composition on governance and product development. *Strategic Organ* 13(2):117–140. <https://doi.org/10.1177/1476127014564109>
- Cook A, Glass CM (2014b) Analyzing promotions of racial/ethnic minority CEOs. *J Manage Psychol* 29(4):440–454. <https://doi.org/10.1108/JMP-02-2012-0066>
- Daft RL, Lengel RH (1984) Information richness: a new approach to managerial behavior and organization design. *Res Organizational Behav*, 6
- Daily CM, Certo ST, Dalton DR (1999) A decade of corporate women: some progress in the boardroom, none in the executive suite. *Strateg Manage J* 20(1):93–100. [https://doi.org/10.1002/\(SICI\)1097-0266\(199901\)20:1<93::AID-SMJ18>3.0.CO;2-7](https://doi.org/10.1002/(SICI)1097-0266(199901)20:1<93::AID-SMJ18>3.0.CO;2-7)
- De Figueiredo RJP, Elkins Z (2003) Are patriots bigots? An inquiry into the vices of in-group pride. *Am J Polit Sci*. <https://doi.org/10.1111/1540-5907.00012>
- Dodd O, Frijns B, Garel A (2022) Cultural diversity among directors and corporate social responsibility. *Int Rev Financial Anal* 83. <https://doi.org/10.1016/j.irfa.2022.102337>
- Dow D, Håkanson L, Ambos B (2014) Perceptions versus national-level differences: a mediating model of psychic distance. *Progress in International Business Research* 9:133–170. <https://doi.org/10.1108/S1745-886220140000009005>
- Dreher GF, Lee JY, Clerkin TA (2011) Mobility and cash compensation: the moderating effects of gender, race, and executive search firms. *J Manag* 37(3):651–681. <https://doi.org/10.1177/0149206310365728>
- Ely RJ, Thomas DA (2020) Getting serious about diversity: Enough already with the business case by robin j. ely and david a. thomas. In *Harvard Business Review* (Vol. 2020, Issue November–December)
- Farag H, Mallin C (2017) Board diversity and financial fragility: evidence from European banks. *Int Rev Financ Anal*. <https://doi.org/10.1016/j.irfa.2016.12.002>
- Farag H, Mallin C (2018) The influence of CEO demographic characteristics on corporate risk-taking: evidence from Chinese IPOs. *Eur J Financ* 24(16). <https://doi.org/10.1080/1351847X.2016.1151454>
- Fehr-Duda H, De Gennaro M, Schubert R (2006) Gender, financial risk, and probability weights. *Theory Decis* 60(2–3):283–313. <https://doi.org/10.1007/s11238-005-4590-0>
- Ferreira D (2010) Board Diversity. In H. K. Baker & R. Anderson (Eds.), *Corporate Governance: a Synthesis of Theory, Research, and Practice* (pp. 225–242)
- Ferrer A, Riddell WC (2008) Education, credentials, and immigrant earnings. *Can J Econ*. <https://doi.org/10.1111/j.1365-2966.2008.00460.x>
- Ferris SP, Jayaraman N, Zhang T (2022) A clash of cultures: the governance and valuation effects of corporate cultural distance. *J Bus Finance Acc* 49(9–10):1696–1735. <https://doi.org/10.1111/jbfa.12612>
- Fracassi C, Tate G (2012) External networking and internal firm governance. *J Finance*. <https://doi.org/10.1111/j.1540-6261.2011.01706.x>
- Ghavami N, Peplau LA (2013) An intersectional analysis of gender and ethnic stereotypes: testing three hypotheses. *Psychol Women Q*. <https://doi.org/10.1177/0361684312464203>
- Giannetti M, Zhao M (2015) Board diversity and firm performance volatility. *SSRN Electron J*. <https://doi.org/10.2139/ssrn.2700058>
- Gino F, Coffman K (2021) Unconscious bias training that works. *Harv Bus Rev* 99(5):114
- Goenner CF (2023) Majority-minority boards of directors and decision making: the effects of homophily on lending decisions. *Bus Soc* 62(1):54–86. <https://doi.org/10.1177/000765032111062182>
- Hagan J (2009) *The Most Powerful Man on Wall Street*. New York

- Hair JF, Black WC, Babin BJ, Anderson RE (2010) *Multivariate Data Analysis* 7ed. In Pearson Prentice Hall. <https://doi.org/10.1016/j.ijpharm.2011.02.019>
- Hambrick DC, Mason PA (1984) Upper echelons: the organization as a reflection of its top managers. *Acad Manage Rev* 9(2):193–206. <https://doi.org/10.5465/amr.1984.4277628>
- Haslam SA, Ryan MK (2008) The road to the glass cliff: differences in the perceived suitability of men and women for leadership positions in succeeding and failing organizations. *Leadersh Q*. <https://doi.org/10.1016/j.leaqua.2008.07.011>
- Hatane SE, Supangat S, Tarigan J, Jie F (2019) Does internal corporate governance mechanism control firm risk? Evidence from Indonesia's three high-risk sectors. *Corp Gov (Bingley)* 19(6):1362–1376. <https://doi.org/10.1108/CG-02-2019-0071>
- Heckman JJ (1979) Sample selection bias as a specification error. *Econometrica* 47(1):153–161
- Hermalin BE, Weisbach MS (1991) The effects of board composition and direct incentives on firm performance. *Financ Manage* 20(4):101–112
- Hermalin BE, Weisbach MS (1998) Endogenously chosen boards of directors and their monitoring of the CEO. *Am Econ Rev* 88(1):96–118. <https://doi.org/10.2307/116820>
- Hermalin BE, Weisbach MS (2003) Boards of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature. April, 7–26
- Hernandez E, Kulchina E (2020) Immigrants and foreign firm performance. *Organ Sci* 31(4). <https://doi.org/10.1287/orsc.2019.1331>
- Hewstone M, Rubin M, Willis H (2002) Intergroup bias. *Annu Rev Psychol* 53(1):575–604. <https://doi.org/10.1146/annurev.psych.53.100901.135109>
- Hill AD, Upadhyay AD, Beekun RI (2015) Do female and ethnically diverse executives endure inequity in the CEO position or do they benefit from their minority status? An empirical examination. *Strateg Manag J* 36(8):1115–1134. <https://doi.org/10.1002/smj.2274>
- Hofstede G (1980) *Culture's Consequences: International Differences in Work-Related Values*. SAGE Publications, Beverly Hills, CA
- Hosoda M, Nguyen LT, Stone-Romero EF (2011) The effect of Hispanic accents on employment decisions. *J Managerial Psychol* 27(4):347–364. <https://doi.org/10.1108/02683941211220162>
- Huang J, Kisgen DJ (2013) Gender and corporate finance: are male executives overconfident relative to female executives? *J Financ Econ* 108(3):822–839. <https://doi.org/10.1016/j.jfineco.2012.12.005>
- Ibarra H (1993) Personal networks of women and minorities in management: a conceptual framework. *Acad Manage Rev* 18(1):56–87. <https://doi.org/10.5465/amr.1993.3997507>
- Jensen M (1993) The modern industrial revolution, exit, and the failure of internal control systems. *J Finance* 48(3):831–880
- Jiang H, Hu W, Jiang P (2024) Does ESG performance affect corporate tax avoidance? Evidence from China. *Finance Research Letters* 61 <https://doi.org/10.1016/j.frl.2024.105056>
- Kanter RM (1977) Some effects of proportions on group life: skewed sex ratios and responses to token women. *Am J Sociol*. <https://doi.org/10.1086/226425>
- Kogut B, Singh H (1988) The Effect of National Culture on the Choice of Entry Mode. *J Int Bus Stud*
- Konara P, Mohr A (2019) Why we should stop using the Kogut and Singh Index. *Manage Int Rev* 59(3):335–354. <https://doi.org/10.1007/s11575-019-00378-7>
- Lee PM, James EH (2007) She-E-os: gender effects and stock price reactions to the announcements of top executive appointments. *Strateg Manag J* 28(3):227–241
- Legrand C, Al Ariss A, Bozionelos N (2019) Migrant CEOs: barriers and strategies on the way to the top. *Eur Manag Rev* 16(3):597–615. <https://doi.org/10.1111/emre.12166>
- Maddux WW, Lu JG, Affinito SJ, Galinsky AD (2021) Multicultural experiences: a systematic review and new theoretical framework. *Acad Manag Ann* 15(2):345–376. <https://doi.org/10.5465/annals.2019.0138>
- Mata J, Alves C (2018) The survival of firms founded by immigrants: institutional distance between home and host country, and experience in the host country. *Strateg Manag J*. <https://doi.org/10.1002/smj.2945>
- Mathew S, Ibrahim S, Archbold S (2018) Corporate governance and firm risk. *Corp Gov (Bingley)* 18(1):52–67. <https://doi.org/10.1108/CG-02-2017-0024>
- Mayda AM (2006) Who is against immigration? A cross-country investigation of individual attitudes toward immigrants. *Rev Econ Stat* 88(3). <https://doi.org/10.1162/rest.88.3.510>
- McEvoy J (2020) Every CEO And Leader That Stepped Down Since Black Lives Matter Protests Began. *Forbes*
- McGowan MO, Lindgren J (2006) Testing the 'model minority myth'. *Northwest Univ Law Rev* 10(2):337–351
- Miller T, Triana MDC (2009) Demographic diversity in the boardroom: mediators of the board diversity-firm performance relationship. *J Manage Stud* 46(5):755–786. <https://doi.org/10.1111/j.1467-6486.2009.00839.x>

- Neville F, Forrester JK, O'Toole J, Riding A (2018) Why even bother trying?' examining discouragement among racial-minority entrepreneurs. *J Manage Stud* 55(3):424–456. <https://doi.org/10.1111/joms.12319>
- Orens R, Reheul AM (2013) Do CEO demographics explain cash holdings in SMEs? *Eur Manag J* 31(6):549–563. <https://doi.org/10.1016/j.emj.2013.01.003>
- Pan Y, Siegel S, Wang TY (2017) Corporate risk culture. *J Financial Quant Anal.* <https://doi.org/10.1017/S0022109017000771>
- Park SH, Westphal JD (2013) Social discrimination in the corporate elite: how status affects the propensity for minority CEOs to receive blame for low firm performance. *Adm Sci Q* 58(4):542–586. <https://doi.org/10.1177/0001839213509364>
- Pesaran MH (2004) General Diagnostic Tests for Cross Section Dependence in Panels. Cambridge Working Papers in Economics 0435, Faculty of Economics, University of Cambridge. <https://doi.org/10.17863/CAM.5113>
- Rosette AS, Leonardelli GJ, Phillips KW (2008) The white standard: racial bias in leader categorization. *J Appl Psychol.* <https://doi.org/10.1037/0021-9010.93.4.758>
- Rudman LA, Moss-Racusin CA, Glick P, Phelan JE (2012) Reactions to Vanguard. *Advances in Backlash Theory. In Advances in Experimental Social Psychology (Vol. 45, pp. 167–228).* <https://doi.org/10.1016/B978-0-12-394286-9.00004-4>
- Ryan MK, Haslam SA (2007) The glass cliff: exploring the dynamics surrounding the appointment of women to precarious leadership positions. *Acad Manage Rev.* <https://doi.org/10.5465/AMR.2007.24351856>
- Sah RK, Stiglitz JE (1986) The Architecture of Economic Systems: Hierarchies and Polyarchies. *The American Economic Review*
- Sah RK, Stiglitz JE (1991) The quality of managers in centralized versus decentralized organizations. *Q J Econ.* <https://doi.org/10.2307/2937917>
- Sila V, Gonzalez A, Hagendorff J (2016) Women on board: does boardroom gender diversity affect firm risk? *J Corp Finance* 36:26–53. <https://doi.org/10.1016/j.jcorpfin.2015.10.003>
- Singh V (2007) Ethnic diversity on top corporate boards: a resource dependency perspective. *Int J Hum Resource Manage* 18:2128–2146. <https://doi.org/10.1080/09585190701695275>
- Stata (N.D.) Panel-Data Unit-Root Tests. StataCorp LLC. Accessed 17 April 2026 <https://www.stata.com/features/overview/panel-data-unit-root-tests>
- Sunitha G, Geetha K, Neelakandan S, Pundir AKS, Hemalatha S, Kumar V (2022) Intelligent deep learning based ethnicity recognition and classification using facial images. *Image Vis Comput.* <https://doi.org/10.1016/j.imavis.2022.104404>
- Tajfel H, Billig MG, Bundy RP, Flament C (1971) Social categorization and intergroup behaviour. *Eur J Soc Psychol.* <https://doi.org/10.1002/ejsp.2420010202>
- Tajfel H, Turner C (1979) J. An Integrative Theory of Intergroup Conflict, in *The Social Psychology of Intergroup Relations.* In *Croatian medical journal*
- Taylor CR, Stem BB (1997) Asian-americans: television advertising and the model minority stereotype. *J Advertising* 26(2):47–60. <https://doi.org/10.1080/00913367.1997.10673522>
- Thams Y, Rickley M (2023) Are foreign-born CEOs held to a higher performance standard? The role of national origin in CEO dismissals. *Glob Strategy J.* <https://doi.org/10.1002/gsj.1491>
- Trompenaars F (1993) *Riding the waves of culture - understanding cultural diversity in business* (N1 OEA). Nicholas Brealey Publishing Ltd.
- Tyler D, Das S, Atewologun D, Batra A, Moni O, Obe M, Nash L-A, Olisa K, Matthew O, Sir P, Phillips T, Latika O, Dr S, Tresh F, Cbe SV, White-Tsimikalis A, Winepress A, Shropshire T, Death A, Timbrell T (2024) *Improving the Ethnic Diversity of UK Business: An update report from the Parker Review* March 2024.
- Ursel N, Durante A, Elsaid E (2023) Ethnic minority CEO turnover: resource-based and leadership categorization perspectives. *J Organizational Behav.* <https://doi.org/10.1002/job.2688>
- Wang C (2012) Board size and firm risk-taking. *Rev Quant Finan Account* 38:519–542. <https://doi.org/10.1007/s11156-011-0241-4>
- Wangrow DB, Kolev KD, Hughes-Morgan M (2023) Disparities in minority executive dismissal: a contingency perspective. *Strategic Organ.* <https://doi.org/10.1177/14761270231184225>
- Watkins MB, Simmons A, Umphress E (2019) It's not black and white: toward a contingency perspective on the consequences of being a token. *Acad Manage Perspect.* <https://doi.org/10.5465/amp.2015.0154>
- Weber L, Wiersema M (2017) Dismissing a tarnished CEO? Psychological mechanisms and unconscious biases in the board's evaluation. *Calif Manage Rev.* <https://doi.org/10.1177/0008125617712257>
- West TV, Heilman ME, Gullett L, Moss-Racusin CA, Magee JC (2012) Building blocks of bias: gender composition predicts male and female group members' evaluations of each other and the group. *J Exp Soc Psychol* 48(5):1209–1212. <https://doi.org/10.1016/j.jesp.2012.04.012>

- Westphal JD, Stern I (2006) The other pathway to the boardroom: interpersonal influence behavior as a substitute for elite credentials and majority status in obtaining board appointments. *Admin Sci Q*. <https://doi.org/10.2189/asqu.51.2.169>
- Wintoki MB, Linck JS, Netter JM (2012) Endogeneity and the dynamics of internal corporate governance. *J Financ Econ*. <https://doi.org/10.1016/j.jfineco.2012.03.005>
- Wooldridge JM (2002) *Econometric analysis of cross section and panel data*. MIT Press
- Yang T, Zhao S (2014) CEO duality and firm performance: evidence from an exogenous shock to the competitive environment. *J Bank Finance* 49:534–552. <https://doi.org/10.1016/j.jbankfin.2014.09.008>
- Yap M, Konrad AM (2009) Gender and racial differentials in promotions: is there a sticky floor, a mid-level bottleneck, or a glass ceiling? *Relations Industrielles* 64(4):593–619. <https://doi.org/10.7202/038875ar>
- Yermack D (1996) Higher market valuation of companies with a small board of directors. *J Financ Econ* 40(2):185–211. [https://doi.org/10.1016/0304-405X\(95\)00844-5](https://doi.org/10.1016/0304-405X(95)00844-5)
- Yung K, Chen C (2018) Managerial ability and firm risk-taking behavior. *Rev Quant Finan Acc* 51(4):1005–1032. <https://doi.org/10.1007/s11156-017-0695-0>
- Zaheer S (1995) Overcoming the liability of foreignness. *Acad Manage J* 38(2):341–363. <https://doi.org/10.2307/256683>
- Zheng X, El Ghoul S, Guedhami O, Kwok CCY (2012) National culture and corporate debt maturity. *J Bank Finance* 36(2):468–488. <https://doi.org/10.1016/j.jbankfin.2011.08.004>
- Zweigenhaft RL, Domhoff GW (2011) *The New CEOs: Women, African American, Latino, and Asian American Leaders of Fortune 500 Companies*. Rowman & Littlefield

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.