



Munich Personal RePEc Archive

## **Heroes or Villains? Culturally endorsed charismatic leadership style and stock price crash risk**

Gaganis, Chrysovalantis and Leledakis, George N. and  
Pasiouras, Fotios and Pyrgiotakis, Emmanouil G.

Department of Economics, University of Crete, Greece, Department  
of Accounting and Finance, School of Business, Athens University of  
Economics and Business, Greece, MBS School of Business, France,  
Essex Business School, University of Essex, UK

November 2024

Online at <https://mpra.ub.uni-muenchen.de/122898/>  
MPRA Paper No. 122898, posted 10 Dec 2024 14:25 UTC

# Heroes or Villains? Culturally endorsed charismatic leadership style and stock price crash risk

Chrysovalantis Gaganis<sup>1</sup>, George N. Leledakis<sup>2</sup>, Fotios Pasiouras<sup>3\*</sup>,  
Emmanouil G. Pyrgiotakis<sup>4</sup>

<sup>1</sup> Department of Economics, University of Crete, Greece

<sup>2</sup> Department of Accounting and Finance, School of Business, Athens University of Economics and Business, Greece

<sup>3</sup> MBS School of Business, France

<sup>4</sup> Essex Business School, University of Essex, UK

## Abstract

This study examines the association between the culturally endorsed charismatic leadership style in a society and stock price crash risk. The results reveal a positive and statistically significant association, providing support to the arguments about the dark-side view of charismatic leadership. This finding remains robust to the inclusion of various control variables, instrumental variable estimations that account for endogeneity, the use of subsamples, and when considering the societal endorsement in the country of origin of the CEO rather than the country of the corporate headquarters. Further analysis reveals that the impact of the charismatic leadership style is channeled through two firm-level managerial actions, namely overinvestment and reporting opacity associated with accruals management. Finally, the results show that the impact of the culturally endorsed charismatic leadership style is moderated by the country-level minority investors' protection rights and the strength of law and order.

**Keywords:** Charismatic leadership style, stock price crash risk, CEO, culture

---

\* Author for correspondence. MBS, 2300 Av. des Moulins, 34080 Montpellier, France; Tel: + 302831077425. E-mail addresses: [c.gaganis@uoc.gr](mailto:c.gaganis@uoc.gr) (C. Gaganis), [gleledak@aueb.gr](mailto:gleledak@aueb.gr) (G.N. Leledakis), [f.pasiouras@mbs-education.com](mailto:f.pasiouras@mbs-education.com) (F. Pasiouras), [e.pyrgiotakis@essex.ac.uk](mailto:e.pyrgiotakis@essex.ac.uk) (E.G. Pyrgiotakis).

## Introduction

Stock price crash risk has received a lot of attention in recent years, with many studies devoted to the investigation of its internal and external drivers. While such efforts have considered both formal (e.g. regulations) and informal (e.g. culture, social capital, religion) institutions, there exists no study on the role of culturally endorsed leadership styles. This is surprising, given that agency problems and the tendency of managers to withhold bad news have a central role in the stock price crash risk literature. Within this context, the leadership style may be particularly important for several reasons. First, leadership has been proposed as an alternative to contractual solutions to agency problems (Wallis and Dollery, 1997). However, to the extent that leadership can be ethical or unethical it may mitigate or amplify agency issues. Second, leadership may have implications for both internal and external communication. Third, the business ethics literature suggests that leaders: (i) set the ethical tone at the top of organizations and influence the practice of business (Murphy and Enderle, 1995), and (ii) shape organizational cultures (Driscoll and McKee, 2007). This can be amplified in the case of charismatic leaders, since followers tend to internalize the vision, mission and values of the charismatic leader (Shamir et al., 1993; Wilderom et al., 2012; Gebert et al., 2016).<sup>1</sup>

In the present study we bring together the literature on charismatic leadership and stock price crash risk, by focusing on the role of the culturally endorsed charismatic/value-based leadership style. Based on the foundation of implicit leadership theory (ILT), the culturally endorsed implicit theories of leadership (CLT) refer to aggregations at the societal level that could be seen as culturally based share conceptions of leadership (Dorfman et al., 2004; Javidan et al., 2004). In other words, they assume that members of cultures share common observations

---

<sup>1</sup> Tourish and Pinnington (2002) highlight that charismatic leadership is an indispensable ingredient of cultic organization, and in such cases, it is common for the followers to develop assumptions such as “the leader knows best”, “the leader must have a compelling vision” and “we need one unifying culture around here” (Tourish and Pinnington; 2002; Tourish and Vatcha, 2005). These assumptions have become standard features of the leadership culture in many corporate organizations (Tourish and Vatcha, 2005).

and values concerning what constitutes effective and ineffective leadership (Dorfman et al., 2004; Javidan et al., 2004).

Charismatic leadership has received a lot of attention in the literature; however, it remains a rather controversial topic. On the one hand, charismatic leaders are usually seen as heroes that are the driving forces behind successful corporate turnarounds, the launch of new enterprises, and extraordinary performance (Howell and Avolio, 1992). Such qualities, combined with the fact that ethical charismatic leaders share information with others (Howell and Avolio, 1992) should result in a negative association with stock price crash risk.

On the other hand, there exists a “dark side” of charismatic leaders. Scholars outline that this “dark side” creates facades and influences followers to participate in, enable, or hide wrongdoing (DeCelles and Pfarrer, 2004). Additionally, Conger (1990) emphasizes that leaders can withhold information that is not favorable to a cause and instead present more positive information. All these could result in a positive association with stock price crash risk. For example, Carlos Ghosn was widely perceived as a charismatic leader and “*C-suite superhero*” (Stevenson and Du, 2021) of Nissan and Renault, until he was arrested over alleged financial misconduct. In particular, the allegations included accusations of understating his salary by around \$44 million during the period 2011-2015 and having misused company funds to cover up personal investment losses (CBS News, 2018; Holmes, 2019). Hiroto Saikawa, Nissan’s CEO, referred to the incidence as the “*dark side of Ghosn’s long reign*” (Campbell et al., 2019), while Holmes (2019) mentions that “*The incarceration of the former Renault-Nissan-Mitsubishi Alliance chief raises questions about trust and whether the age of the charismatic business leader is coming to an end*”. Along the same lines, Greenfield (2018) highlights that investors ignored the lessons of history as they were “*Dazzled by Ghosn’s star power*”. Not surprisingly, the shares of Nissan and Mitsubishi plunged when markets opened in Japan on

the day after the arrest, falling by 6.5% and 6.9% respectively, while the stock price of Renault fell by nearly 10% in the days that followed the arrest (Derhally, 2018; Winton, 2018).

To address our research question, we obtain country-level information about the culturally endorsed charismatic leadership style from the Global Leadership and Organizational Behavior Effectiveness (GLOBE) project. We merge this information with firm-specific and other country-specific data from various sources, resulting in a final sample of 42,693 unique firms headquartered in 41 countries over the period 1990 to 2019.

In general, our results provide support to the dark-side view of charismatic leadership. We find that the country-specific culturally endorsed charismatic leadership style is positively associated with the firm-specific stock price crash risk. This finding holds while controlling for various firm-specific and country-specific characteristics, while using alternative measures of stock price crash risk, and while addressing endogeneity concerns. Further analysis shows that there are two possible channels through which the culturally driven charismatic leadership style influences stock price crash risk. We show that the charismatic leadership style enhances both financial opacity through accruals' management and overinvestment, which in turn increase stock price crash risk. Furthermore, we find that country-level minority investors' protection and the strength of law and order mitigate the adverse effect of the charismatic leadership style.

Our work contributes to the literature in various ways. First, it adds to the literature that explores country-level or regional-level determinants of stock price crash risk. As mentioned earlier, existing studies focus on issues like accounting and enforcement regulations (Abedifar et al., 2019), labor protection regulations (Chen et al., 2023), investor protection (Haider et al., 2024), social capital and social integrity (Gaganis et al., 2024a; Liu and Liu, 2024), religion (Callen and Fang, 2015), and national culture (An et al., 2018; Dang et al., 2019; Yildiz and Karan, 2020). Possibly, the studies that relate to culture are the most closely related ones to our work. An et al. (2018) and Dang et al. (2019) find that firms in more individualistic cultural

settings have higher crash risk, while Yildiz and Karan (2020) obtain mixed results. Fu and Zhang (2019) also examine the role of culture; however, they follow a somewhat different approach. Using information about each CFO's country of origin, they conclude that CFOs from cultural backgrounds that emphasise uncertainty avoidance are negatively associated with firms' stock price crash risk. We depart from all these studies in a very important respect. While related to national culture, the culturally endorsed leadership style that we consider is at the same time quite distinct, reflecting the extent to which societies endorse a certain leadership style, in our case that of a charismatic leader. More importantly, some scholars suggest that culture does not have a direct impact on organizational outcomes, and it rather influences them indirectly through leadership styles. Stephan and Pathak (2016), for example, mention that national culture is a very broad and general concept, and therefore culturally endorsed leadership styles may be the channel through which cultural values influence corporations. Along the same lines, House et al. (2014) provide evidence that cultural values do not directly predict leadership behavior. Instead, they drive the cultural expectations, which in turn shape CEOs' leadership behavior and effectiveness due to the leaders' desire to achieve fit.

Second, our study adds to the business ethics literature on charismatic, ethical and unethical leadership (e.g. Hood, 2003; Resick et al., 2006, 2011; Brown and Mitchell, 2010; Hayibor et al., 2011; Eisenbeiß and Brodbeck, 2014; Nassif et al., 2021), as well as to the more specific debate on whether charismatic leaders are heroes or villains (Howell and Avolio, 1992; DeCelles and Pfarrer, 2004; Tourish and Vatcha, 2005; Ma, 2018; Zhang et al., 2020). Earlier studies on the dark side of charismatic leaders are either of a conceptual nature or focus on other issues like corruption and followers' unethical pro-organizational behavior. We depart from their work by putting the spotlight on stock price crash risk.

Third, in a broader way our work extends the literature on culturally endorsed leadership styles and corporate outcomes. Earlier studies investigate issues like innovative

entrepreneurship (Van Hemmen et al., 2015), national innovativeness (Rossberger and Krause, 2015), the likelihood that an individual will become entrepreneur (Stephan and Pathak, 2016) or social entrepreneur (Muralidharan and Pathak, 2019), public and private sector corruption (Kong and Volkema, 2016; Gutmann and Lucas, 2018), and bank lending corruption (Gaganis et al., 2024b). None of these studies touches upon the issue of stock price crash risk.

The rest of the paper is as follows. The next section provides a background discussion and develops our hypotheses. Then we outline the data and methodology, followed by the section with the empirical results. The final section concludes.

### **Hypotheses development**

Regardless of whether they focus on internal (firm-specific) or external (e.g. country-specific) drivers, the underlying idea in the studies on stock price crash risk is that managers withhold bad news from investors for as long as possible (i.e., bad news hoarding), because of career and short-term compensation concerns (Chen et al., 2001; Jin and Myers, 2006 ; Kothari et al., 2009; Habib et al., 2018). When at some point insiders no longer conceal the accumulated bad news, their sudden revelation to the market leads to a stock price crash. Thus, agency theory and information asymmetries have a central role in the stock price crash risk literature. At the same time, as mentioned in the introduction, leadership can be related to agency issues, the flow of information in the company, and organizational culture. Drawing on these issues, the discussion that follows outlines the potential impact of charismatic leaders on stock price crash risk and develops our hypotheses.

Charisma is a Greek word for divinely inspired gift that was introduced to the study of leadership by the sociologist Max Weber in the early 1900s (Deluga, 1997). Weber (1947) used the term charisma to describe a type of leader with “*a certain quality of an individual personality by virtue of which he is set apart from ordinary men and treated as endowed with supernatural, superhuman, or at least specifically exceptional powers or qualities*” (p. 358). It

should be noted that despite the tendency to refer to charisma as a positive characteristic, charisma is in fact value (morally) neutral - i.e. it does not distinguish between good or moral and evil or immoral charismatic leadership (Howell and Avolio, 1992; Stachowicz-Stanusch, 2011). Therefore, the risks that come with charismatic leadership are at least as large as the promises (Howell and Avolio, 1992). The concept of charisma was primarily the subject of interest in studies from the fields of political and social movements' leadership, until House (1977) proposed a theory of charismatic leaders for organizations (Yukl, 1993).

Those that support charismatic leaders celebrate them as the “heroes of management”.<sup>2</sup> Within this context, there is a belief that charismatic leaders have the power to perform miracles, to bring a dying company back to life, to vanquish much larger and more powerful foes (Khurana, 2002). To some extent this may have to do with the ability of charismatic leaders to build on the needs, values and hopes of their followers, through dramatic and persuasive words and actions (Bass, 1985). Khurana (2002) for example, refers to the supposed “gift of tongues” of charismatic leaders that could not only inspire employees to work harder, but also gain the confidence of investors, analysts, and the sceptical business press. Because of the charismatic leaders' ability to inspire satisfaction and commitment by connecting the followers' activities to an inspiring vision (Fogarty, 2010), the followers of charismatic leaders are more likely to follow orders and work towards organizational goals (Ma, 2018), have positive work attitude (De Hoogh et al., 2005), and higher work output (Antonakis et al., 2022). Additionally, charismatic leaders may obtain external support for the organization (Flynn and Staw, 2004) and achieve higher corporate performance (Wilderom et al., 2012). Furthermore, Vlachos et al. (2013) consider charismatic leadership as an important communication channel that can influence followers' subjective interpretations of companies' corporate social programs. Focusing on the positive aspects of charisma, they hypothesize charismatic leadership to be

---

<sup>2</sup> For references to the term, see Howell and Avolio (1992) and DeCelles et al. (2004), among others.



positively related with intrinsic attributions and negatively related with extrinsic corporate social responsibility (CSR) - induced attributions. Based on these views about the “heroic” charismatic leadership style, we formulate our hypothesis as follows:

*H1a: Other things equal, the culturally endorsed charismatic leadership style will be negatively associated with stock price crash risk*

While most of the early literature focused on the positive sides of charismatic leadership, the dark side of charismatic leaders has received a lot of attention in recent years. The term dark side leadership is attributed to Conger (1990) and Hogan et al. (1990), who used it to describe the pitfalls of charisma in leadership (Smith and Hasselfeld, 2013). For example, the visions of charismatic leaders may be radical, irrational, polarizing, based on bad ideas (Beyer, 1999; Stachowicz–Stanusch, 2011) and project personal needs based on underlying neurosis (Sankowsky, 1995). Furthermore, in pursuit of their vision, charismatic leaders may take extraordinary risks (House and Howell, 1992) and make exaggerate claims (Conger, 1990) in order to win at all costs (Howell and Avolio, 1992).

Therefore, charismatic leaders may destroy a company through wild and unchallenged ambitions that produce an unrealistic vision (Sankowsky, 1995). When leaders are also narcissistic, their tendency to promote grandiose and unrealistic visions often leads to poor follower and organizational outcomes, creating new antecedent conditions (Sankowsky, 1995). The cases of John DeLorean (DeLorean Motor Company), Edwin Land (Polaroid), Robert Campeau (Campeau Corporation), are mentioned in the literature as such examples of charismatic leaders with failed visions (Conger, 1990). Enron’s Kenneth Lay was also widely described as a “*visionary corporate executive*” (Miller, 2004); however, Enron’s vision was also flawed. As discussed in Tourish and Vatcha (2005), it promised people heaven on earth,

frequently leading to hubris. Tourish and Vatcha (2005) also refer to several examples, like: (i) the tone of fantasy in Enron's 2000 annual report, (ii) a huge banner at the Enron's entrance proclaiming its latest vision to become the world's leading company, and (iii) letters to shareholders, which made use of the language of war, sport and extremism (Craig and Amernic, 2004), to reinforce the potency of what was "*a compelling and totalistic vision of the most dramatic kind*" (Tourish and Vatcha, 2005; p. 463).

Consequently, it is not surprising that in contrast to studies about the heroic charismatic leaders discussed earlier, many others challenge the positive association between charismatic leaders and performance. For example, Tosi et al. (2004) fail to find an association between charismatic leaders and firm performance, and Wegge et al. (2022) illustrate conditions under which charismatic leadership reduces individual performance. Furthermore, Khurana (2002) argues that what makes faith in charismatic CEO so troubling, is the lack of conclusive evidence on the impact of leadership on organizational performance.

DeCelles and Pfarrer (2004) refer to the "dark side" as "villain" charismatic leadership, describing it as the leader's control over followers and the ability to manipulate stakeholder demands and decouple organizational practices.<sup>3</sup> They then go on to discuss how charismatic leaders may enhance the likelihood of corrupt behaviour. These attributes of the charismatic leader's dark-side may have further implications, for instance, in the case of stock price crash risk. For example, Wang et al. (2022) and Si and Xia (2023) show that the employees' human capital quality has a negative influence on stock price crash risk of Chinese firms. According to Si and Xia (2023) employee's human capital improves firms' internal information environments, curbs bad-news hoarding and overinvestment, leading to lower stock price crash risk. However, charismatic leaders' behavior influences subordinate behavior, to the extent that

---

<sup>3</sup> Being manipulated by charismatic leaders, staff members can be driven to perform an organizational mission or breach the ethical bottom line (O'Connor et al., 1995; Zhang et al., 2020).

followers begin to participate in and/or hide wrongdoing because of the charismatic leader's powerful influence over them (DeCelles and Pfarrer, 2004). The fact that charismatic leaders have heightened symbolic power makes followers more susceptible to their influences (Sankowsky, 1995). For example, Enron's board of directors bent to the will of its charismatic leader when it agreed to suspend its code of ethics to allow top executives to participate in the off-balance-sheet partnerships (Khurana, 2002). Thus, charismatic leadership could deteriorate organizational human capital and enhance stock price crash risk.

There is another way through which charismatic leaders may distort working relationships. Sankowsky (1995) and Samnani and Singh (2013) highlight that charismatic leaders may abuse their power and victimize employees, and it is usually the case that the subordinates do not even realize it during the initial onset period. Subsequently, they may facilitate group processes whereby group members pressure the target into conforming. Samnani and Singh (2013) outline various reasons for which the targeted individuals will experience increased stress and reduced well-being, regardless of whether they will eventually conform to the group pressures or not. Additionally, the adoption of victimizing behaviors within a group may become visible to other employees in the organization, which combined with the fact that this is encouraged and unpunished by the leaders may result in such behaviors becoming embedded within the organizational culture (Samnani and Singh, 2013). Thus, charismatic leaders may have an adverse effect on the target of victimization, group, and organizations. Along the same lines, Den Hartog et al. (1995) highlight poor interpersonal relations as a potential outcome of charisma in organizations. This may have implications for stock price crash risks, since recent evidence shows that firms with poorer employee relations have a higher stock price crash risk (Zuo et al., 2022).

Moreover, the literature and the press provide many examples where charismatic leaders hid news, were involved in the manipulation of accounting data, and did everything in

their power to conceal the truth. In addition to the case of Carlos Ghosn mentioned earlier, other well-known cases of firms, whose leaders were viewed as charismatic and eventually experienced financial collapse due to fraudulent behaviour are the ones of Bank of Credit and Commerce International (Agha Hasan Abedi), EIEI International (Harunori Takahashi), HealthSouth (Richard Scrushy), WorldCom (Bernie Ebbers), Enron (Kenneth Lay and Jeffery Skilling), Tyco International (Dennis Kozlowski), to name a few.<sup>4</sup> Miller (2004) highlights while refereeing to some of these cases that they have several commonalities. Among others, such commonalities were: (i) a charismatic leader, (ii) an operational mystery, (iii) opaque corporate structure, (iv) conflicts of interest and (v) questionable accounting practices. It is not surprising that in most cases these firms manipulated the accounting numbers to disguise problems until they could no longer be hidden, even with the most creative bookkeeping strategies. Tourish and Vatcha (2005) refer to several testimonies from the Enron case, showing that employees could not question accountancy practices, that there was an unwritten rule of “no bad news” and that strict policies controlled and contained information. For example, in such an environment, followers are usually denied full information about the organization’s goals or practices, while a carefully contrived public display of righteousness by the leaders prevents detailed security of actual behaviours (Tourish and Vatcha, 2005). Similarly, WorldCom, had a culture emanating from corporate headquarters that “*emphasized making the numbers above all else; kept financial information hidden from those who needed to know; blindly trusted senior officers even in the face of evidence that they were acting improperly; discouraged dissent; and left few, if any, outlets through which employees believed they could safely raise their objections*” (Fanto, 2004; p. 450).

---

<sup>4</sup> For further details, see Fanto (2004), Miller (2004), Tourish and Vatcha (2005), Aguilera and Vadera (2008), Craig (2017).

Conger (1990) also outlines several tactics that leaders may use to manipulate and withhold information that is not favourable to their cause, like: (i) restrict negative information and maximise positive information, (ii) use anecdotes to distract attention away from negative statistical information, (iii) create an illusion of control through affirming information and attributing negative outcomes to external causes. As he discusses, DeLorean's management of investors is such an example. Despite several negative signs, the investors allowed themselves to be swayed by DeLorean's personal character and his impressive press coverage, instead of focusing on statistical information (Conger, 1990).

Additionally, the literature suggests that there exists an association between narcissism and charismatic leadership (Post, 1986; Deluga, 1997; Maccoby, 2000; Fogarty, 2010). At the same time many studies shows that narcissistic leaders (CEOs or CFOs) engage in corporate tax shelters (Olsen and Stekelberg, 2016), are associated with more earnings management, less timely loss recognition, weaker internal control quality, and a higher probability of restatements (Ham et al., 2017), and they tend to reinforce their grandiose self-image by issuing more positive earnings announcements (Marquez-Illescas et al., 2019).<sup>5</sup>

All the above about the dark side of charismatic leadership style, point to various agency and information asymmetry issues that could enhance stock price crash risk. Therefore, we formulate our alternative hypothesis as follows:

*H1b: Other things equal, the culturally endorsed charismatic leadership style will be positively associated with stock price crash risk*

## **Data, Variables and Methodology**

We collect data from various sources. Initially, we consider all countries included in the MSCI Developed and Emerging Markets. Then, we constrain our sample to countries for which there

---

<sup>5</sup> Post (1986) refers to the charismatic leader as mirror-hungry personality.

is information about the culturally endorsed charismatic leadership style in the GLOBE project. Subsequently we collect stock return data from Datastream and accounting data from Worldscope. Finally, country-level controls are collected from various World Bank databases, the International Country Risk Guide (ICRG) and the World Economic Forum. Our final sample consists of an unbalanced panel of 437,063 firm-year observations, from 42,693 unique firms headquartered in 41 countries over the period 1990 to 2019.

### **Dependent variable: Stock price crash risk**

In the literature, the common practise is to compute stock price crash risk measures using firm-specific returns. Hence, we rely on a well-established literature (Jin and Myers, 2006; Callen and Fang, 2015; Eun et al., 2015), and we compute firm-specific returns using the residuals of an expanded market model. For every firm  $i$  in year  $T$ , we estimate:

$$\begin{aligned}
r_{i,j,t} = & a_{i,j} + b_{1,i}r_{m,j,t} + b_{2,i}[r_{U.S.,t} + ER_{j,t}] + b_{3,i}r_{m,j,t-1} + b_{4,i}[r_{U.S.,t-1} + ER_{j,t-1}] \\
& + b_{5,i}r_{m,j,t-2} + b_{6,i}[r_{U.S.,t-2} + ER_{j,t-2}] + b_{7,i}r_{m,j,t+1} + b_{8,i}[r_{U.S.,t+1} + ER_{j,t+1}] + \\
& b_{9,i}r_{m,j,t+2} + b_{10,i}[r_{U.S.,t+2} + ER_{j,t+2}] + \varepsilon_{i,j,t} \quad (1)
\end{aligned}$$

$r_{i,j,t}$  is the weekly return of firm  $i$  of country  $j$  in week  $t$  of a year, and  $r_{m,j,t}$  is the market return of country  $j$  in week  $t$ . Furthermore, we include the U.S. market return adjusted for local currency changes with respect to the U.S. dollar ( $r_{U.S.,t} + ER_{j,t}$ ). To correct for nonsynchronous trading, we include leads and lags (Dimson, 1979). Finally, weekly returns are measured from Wednesday to Wednesday to account for the Monday effect (Francis et al., 2015). Then, we use the natural logarithm of 1+ residuals ( $\varepsilon_{i,j,t}$ ) to compute the firm-specific returns ( $w_{i,j,t}$ ).

In line with the bulk of the crash risk literature (Hutton et al., 2009; Kim et al., 2014; Callen and Fang, 2015), we use negative skewness ( $NSkew_{i,j,T}$ ) as our first crash risk proxy. For every firm  $i$  in country  $j$  in year  $T$ ,  $NSkew$  is computed as:

$$NSkew_{i,j,T} = - \frac{n(n-1)^{3/2} \sum_{t=1}^n w_{i,j,t}^3}{(n-1)(n-2) \left( \sum_{t=1}^n w_{i,j,t}^2 \right)^{3/2}} \quad (2)$$

where,  $n$  stands for the number of  $w_{i,j}$  in year  $T$ .

The second proxy we use is the down-to-up volatility ( $DuVol_{i,j,T}$ ).  $DuVol$  is also extensively used in the crash risk literature, and is computed as:

$$DuVol_{i,j,T} = \log \left( \frac{\sum_{Down} w_{i,j,t}^2 / (n_{Down} - 1)}{\sum_{Up} w_{i,j,t}^2 / (n_{Up} - 1)} \right) \quad (3)$$

where,  $n_{up}$  ( $n_{down}$ ) represents the number of weeks where  $w_{i,j,t}$  is higher (lower) than the average firm-specific return of year  $T$ .

Finally, in line with Callen and Fang (2015), we also include the discrete variable  $Count_{i,j,T}$ .  $Count$  is defined as the difference between the number of crash and jump weeks in a year. Crash (jump) week is a week where its firm-specific return is less (more) than 3.09 standard deviation below (above) the mean firm-specific return in a year. Higher values of all three proxies indicate higher stock price crash risk.

### **Independent variable: Culturally endorsed charismatic leadership style**

As mentioned earlier, our source for the culturally endorsed charismatic leadership style is the GLOBE project by House et al. (2004). The score provided by GLOBE for each culturally endorsed leadership style reflects the societal expectations from corporate leaders in each country and can be used in empirical research.<sup>6</sup>

This is based on a large-scale survey that was conducted by the GLOBE researchers in 62 countries between 1994 and 1997 and collected the responses of over 17,000 middle managers from 951 organizations. Initially, the researchers asked the respondents to describe leader attributes and behaviors that they perceive to enhance or impede outstanding leadership in a seven-point scale.<sup>7,8</sup> Then, based on the analysis of the collected data, House et al. (2004) concluded that there are culturally based shared conceptions of leadership, referred to as culturally endorsed implicit theories of leadership (CLT). The development of these CLTs is based on the implicit leadership theory - ILT (Lord and Maher, 1991), which refers to the idea that individuals hold a set of beliefs about those attributes, skills, personality characteristics, and behaviors that contribute to or inhibit outstanding leadership (House et al., 2004). However, while the ILTs refer to the individual level, the CLTs are aggregated at the societal level.

The questionnaire of the GLOBE project included questions about 112 items describing leaders' characteristics or behaviour, like for example: asocial (avoids people or groups; prefers

---

<sup>6</sup> Earlier studies that use the GLOBE leadership style scores in their empirical analyses, albeit in different contexts (e.g., Government fiscal transparency, innovative entrepreneurship, corporate social responsibility, bank corruption, etc.), are the ones of Waldman et al. (2006), Van Hemmen et al. (2015), Rossberger and Krause (2015), Mensah and Qi (2016), Stephan and Pathak (2016), Gaganis et al. (2024b).

<sup>7</sup> Local offices of multinational enterprises were not included to avoid cultural contamination. The respondents (middle managers) were asked to rate the items in the questionnaire on a seven-point scale that ranged from a low of "*This behavior or characteristic greatly inhibits a person from being an outstanding leader*" to a high of "*This behavior or characteristic contributes greatly to a person being an outstanding leader.*"

<sup>8</sup> As earlier studies, we had to work under the assumption that being culturally endorsed, the societal preferences about leadership styles do not change much in the short run. The idea is consistent with many studies that use time-invariant indicators of national culture, arguing that national culture does not change much, even over long time periods (Hofstede, 2001, 2011).



own company), autocratic (makes decisions in dictatorial way), risk taker (willing to invest major resources in endeavors that do not have high probability of success), secretive (tends to conceal information from others), etc. The statistical analysis of the managerial responses about these 112 items resulted in 21 primary dimensions of leadership, with further statistical analysis resulting in the following 6 global leadership dimensions of GLOBE: (i) Charismatic/Value based leadership, (ii) Team-Oriented leadership, (iii) Participative leadership, (iv) Human-oriented leadership, (v) Autonomous leadership, (vi) Self-protective leadership.

The Charismatic leadership style that we consider in our analysis reflects the following six primary leadership dimensions and the associated leadership attributes: (a) visionary (i.e. foresight, prepared, anticipatory, plans ahead), (b) inspirational (i.e. enthusiastic, positive, morale booster, motive arouser), (c) self-sacrifice (i.e. risk taker, self-sacrificial, convincing), (d) integrity (i.e. honest, sincere, just, trustworthy), (e) decisive (i.e. willful, decisive, logical, intuitive ) and (f) performance oriented (i.e. improvement-oriented, excellence-oriented, performance-oriented).<sup>9</sup>

One may wonder at this point: “Why should the expectations of the society about leadership styles translate into actual leadership behavior?” The leaders’ desire to achieve fit is consistent with the institutional theory, which asserts that social and cultural pressures imposed on organizations influence their practices and structures (Scott, 1992).<sup>10</sup> Furthermore, Biggart and Hamilton (1987) put forward an institutional theory of leadership that associates leadership with the legitimating principles and norms of the social structure in which leadership takes place. As they mention, all actors in a corporation, and especially leaders, must embody the

---

<sup>9</sup> Further information about the GLOBE project and the identified culturally endorsed leadership dimensions is available in House et al. (2004), GLOBE (2006), Hanges and Dickson (2004), and House et al. (2014), among others.

<sup>10</sup> Kondra and Hinings (1998) define institutional fit as “*the degree of compliance by an organization with the organizational form of structures, routines, and systems prescribed by institutional norms*” (p. 750).

norms of their positions and persuade others in ways consistent with their normative obligations.

These views are echoed in the statements of several others. Conger (1990) mentions, for example, that “*Research shows that if individuals behave in ways that fulfil the positive stereotypes of an audience they are more likely to interact successful with them. This can be achieved by espousing the beliefs, values, and behaviors associated with the stereotype and appearing as the stereotype is expected to look*”. (p. 51). He then illustrates this point by referring to some of DeLorean’s actions to fulfill the stereotype of the successful businessman. Khurana (2002) also argues that “*Whether in religious, governmental, or business contexts, charisma is much more a social product than an individual trait*” as well as that “*charismatic CEOs acquire their hold over others by meeting certain socially constructed criteria about what constitutes a great leader*”.

Empirical research in the field, tends to support these theoretical arguments. House et al. (2014) show that CEOs tend to behave in line with CLTs, as they learn what is expected by the culture of the country and adjust their behavior to be generally consistent with the society’s leadership expectations. Furthermore, Dorfman et al. (2012) confirm that CEOs that operate in societies with a preference for more autonomous leadership (e.g., Eastern Europe) tend to behave in a more autonomous manner, and CEOs from societies with a preference for self-protective leadership (e.g., Middle East) act in a more self-protective manner. Similarly, CEOs from countries that prefer participatory leadership (e.g., Germanic Europe) or humane leadership (e.g., Southern Asia) tend to behave in accordance with such expectations.

### **Control Variables**

In our regressions, we include the following firm-level and country-level controls. At the firm-level, we include the nine variables. First, we include  $NSkew_{t-1}$  to account for persistency in

stock price crashes (Chang et al., 2017; Gkoumas et al., 2024), and *DTurnover* to account for the role of abnormal trading activity (Chen et al., 2001). Furthermore, following previous studies (Hutton et al., 2009; Balachandran et al., 2020; Andreou et al., 2021) we include *Size*, *ROA*, *BTM*, *Leverage*, and *Returns* to control for differences in these fundamental firm characteristics. We also include *Ln(Age)* because older firms are more resilient to stock price crashes (Yousefi et al., 2023). In addition, we use ( $|DACC|$ ), the absolute discretionary accruals. Previous studies have found a strong positive relationship between  $|DACC|$  and stock price crash risk (Hutton et al., 2009; Xu et al., 2014).

At the country-level, we include the natural logarithm of gross domestic product. (*Ln(GDP)*) and the ratio of stock market cap to GDP (*Market-cap-to-GDP*) as in Li and Wang (2017), An et al. (2018), and Balachandran et al. (2020). Finally, in line with Wu and Lai (2020), we control for industry competition using *Industry HHI*. A detailed description of all variables is included in the Appendix. In all our regression, we use our controls at year  $t-1$ , to mitigate issues with simultaneity and reverse causality.

## **Empirical results**

### ***Main analysis***

Table 1 presents the distribution of the culturally endorsed charismatic leadership style and stock price crash risk measures by country, while Table 2 presents summary statistics for all the variables. We observe that the score for the charismatic leadership style ranges from 4.510 (Qatar) to 6.334 (Philippines) with an average of 5.813 and a standard deviation of 0.303. Similarly, the measures of stock price crash risk vary a lot across countries. For example, the average NSkew of Turkey ( $-0.424$ ) is six times higher than the one of the U.S.A ( $-0.071$ ). Table 3 provides the correlation coefficients. In general, the correlation coefficients are low to moderate and there should not be major concerns about multicollinearity.

[Insert Tables 1, 2, and 3 Around Here]

Table 4 presents the results of the baseline regressions. Columns (1) to (3) show the estimates for NSkew, Duvol and Count, respectively. In all the case, the culturally endorsed charismatic leadership style enters the regression with a positive and statistically significant coefficient. Therefore, our results support hypothesis H1b. In societies that promote a charismatic leadership, the stock price crash risk of companies is higher. Overall, this is consistent with the dark-side view in the literature suggesting that charismatic leaders may manipulate and withhold information that is not favourable to their cause, eventually damaging their corporations. Furthermore, concerning the cultural dimension of the charismatic leadership and its negative consequences, this appears to be consistent with the ideas in Khurana (2002). He mentions, for example, that the widespread quasi-religious belief in the powers of charismatic leaders in the U.S.A., leads companies to overlook many promising candidates and to consider others who are unsuited for the job. As he argues further, the irrational faith in the power of charismatic leaders seems to be a part of the charismatic illusion that is fostered by tales of white knights.

In terms of economic significance, for each change of one unit in the culturally endorsed charismatic leadership style, the average change in the mean of NSkew is about 0.023 units. To put this into perspective in our sample: Holding other things equal, should a company from Qatar (country with the lowest culturally endorsed charismatic leadership score of 4.510) was to operate in Philippines (country with the highest culturally endorsed charismatic leadership score of 6.334) the NSkew of the firm would increase by 0.042 units ( $=0.023*(6.334 - 4.510)$ ).

[Insert Table 4 Around Here]

Given the potential relationship between national culture and culturally endorsed leadership styles, in Table 5 we control for national culture. Using principal component analysis, we extract the first two principal components from Hofstede's six cultural indicators (i.e. power distance, individualism, masculinity, uncertainty avoidance, long term orientation, and indulgence). Their inclusion in the regressions does not change our main results. In all the cases, the charismatic leadership style retains its sign and statistical significance.

[Insert Table 5 Around Here]

As another robustness test, we re-estimate our baseline specification while restricting the sample in various ways. In columns 1 to 3 of Table 6 we exclude the period of the global financial crisis (2007-2009). In columns 4 to 9 we exclude, in turn, firm-year observations from the U.S.A. and Japan. These two countries account for 19.82% and 15.22% of the firm-year observations in the sample, respectively. Restricting the sample in these three ways does not influence our findings.

[Insert Table 6 Around Here]

In Table 7 we report the results of 2SLS IV regressions, that aim to address endogeneity concerns. Reverse causality should not be an issue; however, one may have concerns related to omitted variable bias. In the results reported so far, we attempted to control for this with the use of standard control variables (e.g. GDP, stock market capitalization to GDP) and, more importantly, with the use of fixed effects for geographical regions. As a more formal analysis, we perform these 2SLS IV regressions while instrumenting charismatic leadership with two

alternative instruments that relate to genetics. The existence of a relationship between genetics and leadership is not new. For example, Van Vugt and von Rueden (2020), mention that the evolutionary approaches to leadership are based on Darwin's theory of evolution by natural selection, while references in this strand of the literature go back to the work of Galton (1869) on the hereditary background of great men (Cowan, 1972; Li et al., 2015). More recent work documents empirically that a large proportion of the variance that explains leadership roles and styles can be explained by genetic factors (Johnson et al., 1998; Arvey et al., 2006, 2007), and some of them manage to identify specific genotypes (De Neve et al., 2013; Li et al., 2015). Others show that antisocial behavior, depression, anxiety and personality are largely heritable (Bouchard and Loehlin 2001; Baker et al., 2006; Polderman et al. 2015), with such psychological traits having implications for leadership styles (see e.g. Schoenfeld, 1948; Hughbank and Horn, 2013). Thus, genetics should be related to preferences for leadership styles; however, we have no reason to believe that they may have a direct impact on stock price crash risk.

The first instrument that we use is the country-level genetically determined resistance to infectious disease, namely the human leukocyte antigen (HLA) heterozygosity indicator by Cook (2015). We use this indicator since earlier research suggests that leadership preferences are related to functional disease-avoidance mechanism and the prevalence of disease-causing pathogens (White et al., 2013; Murray et al., 2013). In general, this view is consistent with an evolutionary perspective, which assumes that leadership and followership emerged to solve coordination challenges requiring collective action from group members (Van Vugt et al., 2008; Grabo et al., 2017), including the negative side effects of socialization like infectious diseases (Van Vugt and Grabo, 2015).

As an alternative instrument, we use the country-level human genetic diversity of Ashraf and Galor (2013).<sup>11</sup> This can be roughly defined as “*the probability that two randomly selected individuals differ with respect to the gene in question*” (Ashraf and Galor, 2013, p. 4). The rationale for the use of this instrument is similar to the genetically determined resistance to infectious disease discussed above. For example, Bihlmeyer et al. (2014) conclude that genetic diversity is a predictor of mortality in humans. At the same time, according to the evolutionary perspective on charismatic leadership, charisma may be seen as a characteristic that contributes to the survival and reproductive success of ancestral humans (Grabo et al., 2017). Therefore, the genetic diversity of the population could be related to their chances of survival, and by extension the followers’ preferences for certain leaders.

We present the results with the genetically determined resistance to infectious disease in Columns 1 to 4, and the ones with the human genetic diversity in Columns 5 to 8. In both cases, the underidentification (Kleibergen-Paap rk LM) and weak identification (Kleibergen-Paap F-stat) tests reject the null hypotheses of underidentification and weak identification. The results with the use of the instrumented charismatic leadership remain the same.

[Insert Table 7 Around Here]

In the analysis presented so far, we examined the culturally endorsed leadership style, based on the country of the firms’ headquarters. Thus, consistent with institutional theory we assumed that leaders adopt to the social expectations and stereotypes in the country where they operate. However, the literature also suggests that CEOs may carry with them cultural characteristics from their country-of-origin (i.e. cultural heritage), that shape their decisions,

---

<sup>11</sup> The use of genetic diversity as an instrument of cultural preferences for leadership styles is consistent with Gaganis et al. (2024b).

attitude, and corporate outcomes (Nguyen et al., 2018; Pan et al., 2020; Pham et al., 2022; Loi et al., 2023). To account for this, we undertake some further analysis. In more detail, we use the Boardex database to identify the nationality of the CEOs of the firms in our sample. We were able to match 7,833 firms. While most of the CEOs operate in the country where they come from, there are also 13.56% of foreign CEOs in our sample. Subsequently, we assign the score of the charismatic leadership style based on the country-of-origin of the CEO (i.e. nationality) rather than the headquarters of the firm that they lead. The results in Table 8 show that the results hold.<sup>12</sup> The charismatic leadership style continues entering the regression with a positive and statistically significant coefficient.

[Insert Table 8 Around Here]

### ***Further analysis: Channels and moderation effects***

Following earlier studies, we examine two managerial actions that have been put forward as prominent explanations (i.e. channels) of stock price crash risk, namely financial reporting opacity and overinvestment. After all, as mentioned earlier, overinvestments and financial opacity associated with the manipulation of accounting data are typical examples of real-life cases associated with the dark side of charismatic leaders (e.g. John DeLorean, Edwin Land, Robert Campeau, Kenneth Lay, Carlos Ghosn).<sup>13</sup>

As in Chen et al. (2018) and Dang et al. (2019) we use a two-step regression approach. First, we examine the relation between (i) culturally endorsed charismatic leadership style and financial reporting opacity through accruals management, (ii) culturally endorsed charismatic

---

<sup>12</sup> At this stage we also control for the following characteristics of the CEO and the board of directors: Board size, board gender diversity, CEO age, female CEO.

<sup>13</sup> Along these lines, Deutschman (2005) mentions for example: “*We're worshipful of top executives who seem charismatic, visionary, and tough. So long as they're lifting profits and stock prices, we're willing to overlook that they can also be callous, conning, manipulative, deceitful, verbally and psychologically abusive, remorseless, exploitative, self-delusional, irresponsible, and megalomaniacal.*”



leadership style and overinvestment. Second, we examine the association between: (i) financial reporting opacity and stock price crash risk, and (ii) overinvestment and stock price crash risk. Thus, consistent with the dark-side view of charismatic leaders, the underlying idea in our analysis is that the culturally endorsed charismatic leadership style enhances financial reporting opacity and overinvestment, which subsequently increase stock price crash risk.

Jin and Myers (2006) propose that managerial bad news hoarding through opaque financial statements is an important driver of stock price crashes, a view that is echoed in the literature review of Habib et al. (2018). To proxy for financial reporting opacity, we use the performance-controlled accruals model of Tucker and Zarowin (2006).<sup>14</sup> For each country  $j$  at year  $t$ , we estimate the following cross-sectional regression:

$$\frac{TACC_{i,t}}{TA_{i,t-1}} = \alpha_0 \left( \frac{1}{TA_{i,t-1}} \right) + \alpha_1 \left( \frac{\Delta REV_{i,t}}{TA_{i,t-1}} \right) + \alpha_2 \left( \frac{GPPE_{i,t}}{TA_{i,t-1}} \right) + \alpha_3 ROA_{i,t} + \varepsilon_t \quad (4)$$

where  $TACC_{i,t}$  is the total accruals of firm  $i$  at year  $t$ ,  $\Delta REV_{i,t}$  is the change in revenue of firm  $i$  from year  $t-1$  to year  $t$ ,  $GPPE_{i,t}$  is the level of gross property, plant, and equipment of firm  $i$  at year  $t$ ,  $ROA_{i,t}$  is the return on assets of firm  $i$  at year  $t$ , and  $TA_{i,t}$  is the total assets of firm  $i$  at year  $t-1$ . The residuals from these regressions are used as proxies for discretionary accruals (Han et al., 2010). Our measure of financial reporting opacity is the 3-year moving sum of the absolute discretionary accruals (Hutton et al., 2009; Callen and Fang, 2015).

As it concerns the second potential channel, we follow Dang et al. (2019) and construct a measure for the excess investment in total assets. For every year and industry group, we regress total asset growth on sales growth. Then, we use the residuals to create a dummy variable which

---

<sup>14</sup> This approach improves the accrual models of Jones (1991) by adding the firms' return on assets as an additional control. In fact, previous studies suggest the Jones model to be misspecified for well-or poor-performing firms (Dechow et al., 1995; Kothari et al., 2005).

equals 1 for positive residuals, and 0 otherwise. Thus, in cases where corporate total assets are growing at a faster rate than corporate sales, the manager is overinvesting relative to their peers.

Table 9 presents the above-mentioned estimates. First, we document that the culturally endorsed charismatic leadership style has a positive and statistically significant association with financial opacity through accruals' management (Column 1) and overinvestment (Column 5). Second, we find that both financial opacity and overinvestment have a positive and statistically significant association with all the measures of stock price crash risk. Thus, the results are consistent with our expectations.

[Insert Table 9 Around Here]

The ability of charismatic leaders to engage in inappropriate actions that lead to stock price crash risk may be mitigated by strong country-specific formal institutions, like laws and regulations. After all, numerous existing studies document that formal institutions interact with informal ones (e.g. national culture, social capital, social trust) in shaping the behavior of individuals and corporations (e.g. Guiso et al., 2004; Pasiouras and Samet, 2022). Therefore, we examine the interaction of the culturally endorsed charismatic leadership style with: (i) the minority investors' protection index of the World Bank's Doing Business Report, and (ii) a more general indicator of the strength of law and order from the ICRG.

The rationale for exploring the moderating role of the strength of minority investors' protection is that it reflects the protection of shareholders against directors' misuse of corporate assets for personal gain and the shareholders' rights in corporate governance. This makes it particularly relevant to our case as it could limit the ability and willingness of leaders to engage in misconduct. In more detail, the data come from a questionnaire administered to corporate and securities lawyers and are based on securities regulations, company laws, civil procedure

codes and court rules of evidence. The minority investors' protection index is based on two sub-indices: (i) the conflict of interest regulation sub-index measures the protection of shareholders against directors' misuse of corporate assets for personal gain by considering the following three dimensions of regulation that address conflicts of interest: (a) extent of disclosure (transparency of related-party transactions), (b) extent of director liability (shareholders' ability to sue and hold directors liable for self-dealing), (c) ease of shareholder suits (access to evidence and allocation of legal expenses in shareholder litigation); and (ii) the shareholder governance sub-index measures shareholders' rights in corporate governance by considering the following three dimensions of good governance: (a) extent of shareholder rights (shareholders' rights and role in major corporate decisions), (b) extent of ownership and control (governance safeguards protecting shareholders from undue board control entrenchment), (c) extent of corporate transparency (transparency on ownership stakes, compensation, audits and financial prospects).

We also examine the moderating effect of a more general indicator of the formal institutional environment, reflecting the strength of law and order. To assess the law element, the ICRG considers the strength and impartiality of the legal system, while the order element is assessed based on popular observance of the law. Gaganis et al. (2024a) find that the impact of social capital on stock price crash risk is moderated by formal institutions, like property rights and law and order. In our case, the underlying hypothesis is that a stronger institutional environment will impose limitations in the ability and willingness of corporate leaders in engaging in misconduct and withholding of information.

We present the estimates with the interaction effect in Table 10. The results in Panels A and B show that minority investors' protection as well as the strength of law and order moderate the effect of charismatic leadership style on stock price crash risk. To provide a better interpretation of the economic significance of this finding, Table 11 presents the average

marginal effect of the charismatic leadership style on the stock price crash risk indicators, for different values of the minority investors' protection index (Panel A) and the law and order indicator (Panel B). In what follows we refer to NSkew; however, the results are quite similar in the case of Duvol and Count. We find that the average marginal effect of charismatic leadership on NSkew ranges between 0.176 when minority investors' protection equals 54, to 0.006 when minority investors' protection equals 86. Furthermore, we observe that once the value of minority investors' protection exceeds a certain threshold (i.e. 82 in the case of Table 11), the effect of charismatic leadership becomes insignificant. The findings are quite similar in the case of the law and order indicator. As the value of this indicator increases, the average marginal effect of the charismatic leadership style diminishes, and after a threshold point it is no longer statistically significant.

[Insert Tables 10 and 11 Around Here]

## **Conclusions**

The present study extends earlier work on the external drivers of stock price crash risk. Using a large cross-country sample we examine, for the first time in the literature, the role of the culturally endorsed charismatic leadership style. Our results reveal a positive association between this leadership style and stock price crash risk, providing support to the arguments about the dark view of charismatic leadership. This finding remains robust to various tests including IV estimations that account for endogeneity. The results also hold regardless of whether we consider the societal endorsement in the country of the corporate headquarters or the country of origin of the CEO. Furthermore, we find that the impact of the charismatic leadership style is channeled through two firm-level managerial actions, namely overinvestment and reporting opacity associated with accruals management. Finally, the results

show that the impact of charismatic leadership style is moderated by country-level minority investors' protection rights and the strength of law and order.

Our results have important implications. First, they shed additional light on the drivers of stock price crash risk. This is particularly important since stock price crash risk can result in large losses to shareholders (Chen and Chen, 2024) and enhance the likelihood of a takeover (Carline et al., 2024). Second, they imply that shareholders should direct their attention in imposing limitations in managerial actions related to overinvestment and accruals management. Third, they have policy making implications. While it is difficult to change the deep-rooted cultural preferences about leadership style, policy makers can mitigate the impact of leadership style on stock price crash risk by design systems that enhance the protection of shareholders against directors' misuse of corporate assets for personal gain and strengthen shareholders' rights in corporate governance.

## References

- Abedifar, P., Li, M., Johnson, D., Song L., & Xing, S. (2019). Accounting regulations, enforcement, and stock price crash risk: Global evidence in the banking industry. *Journal of Contemporary Accounting and Economics*, 15, 100164.
- Aguilera, R.V., & Vadera, A.K. (2008). The Dark Side of Authority: Antecedents, Mechanisms, and Outcomes of Organizational Corruption. *Journal of Business Ethics*, 77, 431 - 449.
- An, Z., Chen, Z., Li, D., & Xing, L. (2018). Individualism and stock price crash risk. *Journal of International Business Studies*, 49, 1208-1236.
- Andreou, C.K., Andreou, P.C., & Lambertides, N. (2021). Financial distress risk and stock price crashes. *Journal of Corporate Finance*, 67, 101870.
- Antonakis, J., d'Adda, G., Weber, R.A., & Zehnder, C. (2022). "Just Words? Just Speeches?" On the Economic Value of Charismatic Leadership. *Management Science*, 68, 6355-6381.
- Arvey, R.D., Rotundo, M., Johnson, W., Zhang, Z., & McGue, M. (2006). The determinants of leadership role occupancy: Genetic and personality factors. *Leadership Quarterly*, 17, 1-20.
- Arvey, R.D., Zhang, Z., Avolio, B.J., & Krueger, R.F. (2007). Developmental and genetic determinants of leadership role occupancy among women. *Journal of Applied Psychology*, 92, 693-706.
- Ashraf, Q., & Galor, O. (2013). The 'Out of Africa' Hypothesis, Human Genetic Diversity, and Comparative Economic Development. *American Economic Review*, 103, 1-46.
- Baker, L. A., Bezdjian, S., & Raine, A. (2006). Behavioral genetics: The science of antisocial behavior. *Law and Contemporary Problems*, 69, 7-46.
- Balachandran, B., Duong, H. N., Luong, H., Nguyen, L., 2020. Does takeover activity affect stock price crash risk? Evidence from international M&A laws. *Journal of Corporate Finance*, 64, 101697.
- Bass, B.M. (1985) *Leadership and Performance beyond Expectations*. Free Press, New York, New York.
- Beyer, M. (1999). Taming and promoting charisma to change organizations. *Leadership Quarterly*, 10, 307-330.
- Biggart, N.W., & Hamilton, G.G. (1987). An Institutional Theory of Leadership. *Journal of Applied Behavioral Science*, 23, 429-441
- Bihlmeyer, N.A., Brody, J.A., Smith, A.V., Lunetta, K.L., Nalls, M., Smith, J.A., Tanaka, T., Davies, G., Yu, L., Mirza, S.S., Teumer, A., Coresh, J., Pankow, J.S., Franceschini, N., Scaria, A., Oshima, J., Psaty, B.M., Gudnason, V., Eiriksdottir, G., Harris, T.B., Li, H., Karasik, D., Kiel, D.P., Garcia, M., Liu, Y., Faul, J.D., Kardina, S.L., Zhao, W., Ferrucci, L., Allerhand, M., Liewald, D.C., Redmond, P., Starr, J.M., De Jager, P.L., Evans, D.A., Direk, N., Ikram, M.A., Uitterlinden, A., Homuth, G., Lorbeer, R., Grabe, H.J., Launer, L., Murabito, J.M., Singleton, A.B., Weir, D.R., Bandinelli, S., Deary, I.J., Bennett, D.A., Tiemeier, H., Kocher, T., Lumley, T., & Arking, D.E. (2014). Genetic diversity is a predictor of mortality in humans. *BMC Genetics*, 15, 159. doi: 10.1186/s12863-014-0159-7
- Bouchard, T.J.Jr., & Loehlin, J.C. (2001). Genes, evolution, and personality. *Behavior Genetics*, 31, 243-273.
- Brown, M.E., & Mitchell, M.S., (2010). Ethical and unethical leadership: Exploring new avenues for future research. *Business Ethics Quarterly*, 20, 583-616.
- Callen, J.L., & Fang, X. (2015). Religion and Stock Price Crash Risk. *Journal of Financial and Quantitative Analysis*, 50, 169-195.
- Campbell, M., Inoue, K., Ma, J., & Nussbaum, A. (2019). Inside the Takedown That Put Carlos Ghosn in Jail. *BusinessWeek*, January 31. Available at:

- <https://www.bloomberg.com/news/features/2019-01-31/inside-the-takedown-of-renault-nissan-chairman-carlos-ghosn>
- Carline, N.F., Gao, Y., & Kuo, J.-M. (2024). Stock price crash risk and the market for corporate control. *British Journal of Management*, In Press.
- CBS News. (2018). Nissan's Carlos Ghosn indicted for underreporting pay. December 10, Available at: <https://www.cbsnews.com/news/nissans-carlos-ghosn-indicted-for-underreporting-pay/>
- Chang, X., Chen, Y., & Zolotoy, L., (2017). Stock liquidity and stock price crash risk. *Journal of Financial and Quantitative Analysis*, 52, 1605-1637.
- Chen, J., Hong, H., & Stein, J. (2001). Forecasting crashes: trading volume, past returns, and conditional skewness in stock prices. *Journal of Financial Economics*, 61, 345-381.
- Chen, T-H., & Chen, K.-S. (2024). The effect of investor attention on stock price crash risk. *Journal of Empirical Finance*, 75, 101456.
- Chen, W., Dai, L., Fang, X., & Zhang, W. (2023). Labor protection and stock price crash risk: Evidence from international equity markets. *British Accounting Review*, In Press.
- Chen, Y., Xie, Y., You, H., & Zhang, Y. (2018). Does crackdown on corruption reduce stock price crash risk? Evidence from China. *Journal of Corporate Finance*, 51, 125-141.
- Conger, J.A. (1990). The dark side of leadership. *Organizational Dynamics*, 19, 44-55.
- Cook, C.J. (2015). The natural selection of infectious disease resistance and its effect on contemporary health. *Review of Economics and Statistics*, 97, 742-757.
- Cowan, R.S. (1972). Francis Galton's contribution to genetics. *Journal of the History of Biology*, 5, 389-412.
- Craig, N. (2017). Authentic Leadership: Insights, Learnings, Lessons. Authentic Leadership Institute. Available at: <https://tomorrowlawyer.org/wp-content/uploads/2018/07/authentic-leadership--reading.pdf>
- Craig, R., & Amernic, J. (2004). Enron discourse: The rhetoric of a resilient capitalism. *Critical Perspectives on Accounting*, 15, 813–51.
- Dang, T.L., Faff, R., Luong, H., & Nguyen L. (2019). Individualistic cultures and crash risk. *European Financial Management*, 25, 622-654.
- De Hoogh, A.H.B., Den Hartog, D.N., Koopman, P.L., Thierry, H., Van den Berg, P.T., Van der Weide, J.G., & Wilderom, C.P.M. (2005). Leader motives, charismatic leadership, and subordinates' work attitude in the profit and voluntary sector. *Leadership Quarterly*, 16, 17-38.
- De Neve, J-E., Mikhaylov, S., Dawes, C.T., Christakis, N.A., & Fowler, J.H. (2013). Born to lead? A twin design and genetic association study of leadership role occupancy. *Leadership Quarterly*, 24, 45-60.
- DeCelles, K.A., & Pfarrer, M.D. (2004). Heroes or villains? Corruption and the charismatic leader. *Journal of Leadership and Organizational Studies*, 11, 67-77.
- Dechow, P.M., Sloan, R.G., & Sweeney, A.P. (1995). Detecting earnings management. *Accounting review*, 70, 193-225.
- Deluga, R.J. (1997). Relationship among American presidential charismatic leadership, narcissism, and rated performance. *Leadership Quarterly*, 8, 49-65.
- Den Hartog, D.N., Koopman, P.L., Van Muijen, J.J. (1995). Charismatic Leadership; A State of the Art. *Journal of Leadership Studies*, 2, 35-49.
- Derhally, M.A., (2018). Shares of Nissan and Mitsubishi plunge following Ghosn arrest. The National, November 20, Available at: <https://www.thenationalnews.com/business/shares-of-nissan-and-mitsubishi-plunge-following-ghosn-arrest-1.793742>
- Deutschman, A. (2005). Is Your Boss a Psychopath? Fast Company & Inc, Available at: <https://www.fastcompany.com/53247/your-boss-psychopath>

- Dimson, E. (1979). Risk measurement when shares are subject to infrequent trading. *Journal of Financial Economics*, 7, 197-226.
- Dorfman, P., Javidan, M., Hanges, P., Dastmalchian, A., & House, R. (2012). GLOBE: A twenty year journey into the intriguing world of culture and leadership. *Journal of World Business*, 47, 504-518.
- Dorfman, P.W., Hanges, P.J., & Brodbeck F.X. (2004). Leadership and Cultural Variation: The Identification of Culturally Endorsed Leadership Profiles. In: House R.J., Hanges P.J., Javidan M., Dorfman P.W., Gupta V., (Editors). (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. SAGE Publications, pp. 29-48.
- Driscoll, D., & McKee, M. (2007). Restoring a culture of ethical and spiritual values: A role for leader storytelling. *Journal of Business Ethics*, 73, 205-217.
- Eisenbeiß, S.A., & Brodbeck, F. (2014). Ethical and unethical leadership: A cross-cultural and cross-sectoral analysis. *Journal of Business Ethics*, 122, 343-359.
- Eun, C.S., Wang, L., & Xiao, S.C. (2015). Culture and R<sup>2</sup>. *Journal of Financial Economics*, 115, 283-303.
- Fanto, J. (2004). Whistleblowing and the public director: countering corporate inner circles. *Oregon Law Review*, 83, 435-540.
- Flynn, F.J., & Staw, B.M. (2004). Lend me your wallets: the effect of charismatic leadership on external support for an organization. *Strategic Management Journal*, 25, 309-330.
- Fogarty, S.G. (2010). The dark side of charismatic leadership. *Australasian Pentecostal Studies*, 13, 7-20.
- Francis, B.B., Hasan, I., Song, L., & Yeung, B. (2015). What determines bank-specific variations in bank stock returns? Global evidence. *Journal of Financial Intermediation*, 24, 312-324
- Fu, X., & Zhang, Z. (2019). CFO cultural background and stock price crash risk. *Journal of International Financial Markets, Institutions and Money*, 62, 74-93.
- Gaganis, C., Leledakis, G.N., Pasiouras, F., Pyrgiotakis, E.G. (2024a). Social capital and stock price crash risk: Cross-country evidence. Available at SSRN: <http://ssrn.com/abstract=4633243>.
- Gaganis, C., Pasiouras, F., & Tasiou M. (2024b). Corruption in bank lending: The role of culturally endorsed leadership prototypes. *Journal of Business Ethics*, 193, 193-216.
- Galton, F. (1869). *Hereditary Genius: An inquiry into its laws and consequences*. MacMillan and Co., London.
- Gebert, D., Heinitz, K., & Buengeler, C. (2016). Leaders' charismatic leadership and followers' commitment - The moderating dynamics of value erosion at the societal level. *Leadership Quarterly*, 27, 98-108.
- Gkoumas, N.C., Leledakis, G.N., Pyrgiotakis, E.G., & Androutsopoulos, I. (2024). Bank competition, loan portfolio concentration and stock price crash risk: The role of tone ambiguity. *British Journal of Management*. In Press.
- GLOBE. (2006). *Research Survey GLOBE Project (Global Leadership and Organizational Behavior Effectiveness Project) Form Alpha*, Available at: <https://globeproject.com/data/GLOBE-Phase-2-Alpha-Questionnaire-2006.pdf>
- Grabo, A., Spisak, B.R., & Van Vugt, M. (2017). Charisma as signal: An evolutionary perspective on charismatic Leadership. *Leadership Quarterly*, 28, 473-485.
- Greenfield, R., (2018). Dazzled by Ghosn's star power, investors ignored the lessons of history. *Los Angeles Times*, November 24, Available at: <https://www.latimes.com/business/la-fi-ghosn-investors-20181124-story.html>
- Guiso, L., Sapienza, P., & Zingales, L., (2004). The Role of Social Capital in Financial Development. *American Economic Review*, 94, 526-556.



- Gupta, V., & Hanges, P.J. (2004). Regional and climate clustering of societal cultures. In: House R.J., Hanges P.J., Javidan M., Dorfman P.W., Gupta V. (Editors), *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. SAGE Publications, pp. 178-21.
- Gutmann, J., & Lucas, V. (2018). Private-sector corruption: Measurement and cultural origins. *Social Indicators Research*, 138, 747-770.
- Habib, A., Hasan, M.M., & Jiang, H. (2018). Stock price crash risk: review of the empirical literature. *Accounting and Finance*, 58, 211-251.
- Haider, M.J., Ahmad, M., & Wu, Q. (2024). The role of investor protection in stock price crash risk: a comparison of developing and developed Asian economies. *Kybernetes*, In Press.
- Ham, C., Lang, M., Seybert, N., & Wang, S. (2017). CFO narcissism and financial reporting quality. *Journal of Accounting Research*, 55, 1089-1135.
- Han, S., Kang, T., Salter, S., & Yoo, Y.K. (2010). A cross-country study on the effects of national culture on earnings management. *Journal of International Business Studies*, 41, 123-141.
- Hayibor, S., Agle, B.R., Sears, G.J., Sonnenfeld, J.A., & Ward, A. (2011). Value congruence and charismatic leadership in CEO-Top manager relationships: An empirical investigation. *Journal of Business Ethics*, 102, 237-254.
- Hofstede, G. (2001). *Culture's Consequences: Comparing, Values, Behaviors, Institutions and Organizations Across Nations*, 2nd Edition, Sage Publications.
- Hofstede, G. (2011) Dimensionalizing Cultures: The Hofstede Model in Context, *Online Readings in Psychology and Culture*, 2(1), <https://doi.org/10.9707/2307-0919.1014>
- Hogan, R., Rashkin, R., & Fazzini, D. (1990). The dark side of charisma. In: Clark, K.E., Clark M.B., (Editors), *Measures of Leadership*. West Orange, NJ: Leadership Library of America.
- Holmes, L. (2019). What are the implications of Carlos Ghosn's arrest? April 16, Available at: <https://the-cfo.io/2019/04/16/what-are-the-implications-of-carlos-ghosns-arrest/>
- Hood, J.N. (2003). The relationship of leadership style and CEO values to ethical practices in organizations. *Journal of Business Ethics*, 43, 263-273.
- House, R.J. (1977). A 1976 theory of charismatic leadership. In: Hunt J.G., Larson L.L (Editors) *Leadership: The cutting edge*. Carbondale, IL: Southern Illinois University Press, pp. 189-207.
- House, R.J., & Howell, J.M. (1992). Personality and charismatic leadership. *Leadership Quarterly*, 3, 81-108.
- House, R.J., Dorfman, P.W., Javidan, M., Hanges, P.W., & Sully de Luque, M.F. (2014). *Strategic Leadership Across Cultures: The Globe Study of CEO Leadership Behavior and Effectiveness in 24 Countries*. SAGE Publications.
- House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W., & Gupta, V. (Editors). (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. SAGE Publications.
- Howell, J.M., & Avolio, B.J. (1992). The ethics of charismatic leadership: submission or liberation? *Academy of Management Executive*, 6, 43-54.
- Hughbank, R.J., & Horn, L.C. (2013). *Traits and behavior: Psychological approaches to leadership, Collective Efficacy: Interdisciplinary Perspectives on International Leadership* (Advances in Educational Administration, Vol. 20), Emerald Group Publishing Limited, Bingley, pp. 245-260.
- Hutton, A.P., Marcus, A.J., & Tehranian, H. (2009). Opaque financial reports, R<sup>2</sup>, and crash risk. *Journal of Financial Economics*, 94, 67-86.
- Javidan, M., House, R.J., & Dorfman, P.W. (2004). A Nontechnical Summary of GLOBE Findings. In: House R.J., Hanges P.J., Javidan M., Dorfman P.W., Gupta V., (Editors). (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. SAGE Publications, pp. 29-48.

- Jin, L., & Myers, S.C. (2006). R2 around the world: new theory and new tests. *Journal of Financial Economics*, 79, 257-292.
- Johnson, A.M., Vernon, P. A., McCarthy, J. M., Molson, M., Harris, J. A., & Jang, K. J. (1998). Nature vs nurture: Are leaders born or made? A behavior genetic investigation of leadership style. *Twin Research*, 1, 216-223.
- Khurana, R. (2002). The Curse of the Superstar CEO. *Harvard Business Review*, September, Available at: <https://hbr.org/2002/09/the-curse-of-the-superstar-ceo>
- Kim, Y., Li, H., & Li, S. (2014). Corporate social responsibility and stock price crash risk. *Journal of Banking & Finance*, 43, 1-13.
- Kondra, A.Z., & Hinings, C.R. (1998). Organizational diversity and change in institutional theory. *Organization Studies*, 19, 743-767.
- Kong, D.T., & Volkema, R. (2016). Cultural endorsement of broad leadership prototypes and wealth as predictors of corruption. *Social Indicators Research*, 127, 139-152.
- Kothari, S.P., Leone, A.J., & Wasley, C.E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, 39, 163-197.
- Kothari, S.P., Shu, S., & Weysocki, P.D. (2009). Do managers withhold bad news? *Journal of Accounting Research*, 47, 241-276.
- Li, W-D., Wang, N., Arvey, R.D., Soong, R., Sawe, S.M., & Song, Z. (2015). A mixed blessing? Dual mediating mechanisms in the relationship between dopamine transporter gene DAT1 and leadership role occupancy. *Leadership Quarterly*, 26, 671-686.
- Li, X., Wang, S.S., & Wang, X. (2017). Trust and stock price crash risk: Evidence from China. *Journal of Banking and Finance*, 76, 74-91.
- Liu, Y., & Liu, J. (2024). Social integrity and stock price crash risk. *Journal of Business Ethics*, 190, 703-721.
- Loi, F.L., Chen, J.J., & Qiao, Z. (2023). CEO cultural background and corporate cash holdings. *Accounting & Finance*, 63, 1069-1100.
- Lord, R., & Maher, K.J. (1991). *Leadership and information processing: Linking perceptions and performance*. Boston: Unwin-Everyman.
- Ma, B. (2018). The Dark Side of Charismatic Leadership: A Social Exchange Perspective. PhD dissertation, City University of New York. Available at: [https://academicworks.cuny.edu/gc\\_etds/2777/](https://academicworks.cuny.edu/gc_etds/2777/)
- Maccoby, M. (2000). Narcissistic leaders: The incredible pros, the inevitable cons. *Harvard Business Review*, 78, 69-77.
- Marquez-Illescas, G., Zebedee, A.A., & Zhou, L. (2019). Hear me write: Does CEO narcissism affect disclosure? *Journal of Business Ethics*, 159, 401-417.
- Mensah, Y.M., & Qi, Y. (2016). Preferred Leadership Styles, Culture, and Government Fiscal Transparency: An International Analysis. *Advances in Economics and Business*, 4, 273-290.
- Miller, G.P. (2004). Catastrophic financial failures: Enron and more. *Cornell Law Review*, 89, 423-455
- Muralidharan, E., & Pathak, S. (2019). Consequences of cultural leadership styles for social entrepreneurship: A theoretical framework. *Sustainability*, 11, 1-19.
- Murphy, P.E., & Enderle, G. (1995). Managerial ethical leadership: Examples do matter. *Business Ethics Quarterly*, 5, 117-128.
- Murray, D.R., Schaller, M., & Suedfeld, P. (2013). Pathogens and politics: further evidence that parasite prevalence predicts authoritarianism. *PLoS One*, 8, e62275.
- Nassif, A.G., Hackett, R.D., & Wang, G., (2021). Ethical, virtuous, and charismatic leadership: An examination of differential relationships with follower and leader outcomes. *Journal of Business Ethics*, 172, 581-603.

- Nguyen, D.D., Hagendorff, J., & Eshraghi, A. (2018). Does a CEO's cultural heritage affect performance under competitive pressure? *Review of Financial Studies*, 31, 97-141.
- O'Connor, J., Mumford, M.D., Clifton, T.C., Gessner T.L., & Connelly, M.S. (1995). Charismatic leaders and destructiveness: An historiometric study. *Leadership Quarterly*, 6, 529-555.
- Olsen, K. J., Stekelberg, J. (2016). CEO narcissism and corporate tax sheltering. *Journal of the American Taxation Association*, 38, 1-22.
- Pan, Y., Siegel, S., & Wang, T.Y., (2020). The cultural origin of CEOs' attitudes toward uncertainty: Evidence from corporate acquisitions. *Review of Financial Studies*, 33, 2977-3030.
- Pasiouras, F., & Samet, A. (2022). Social capital and the cost of bank equity: Cross-country evidence. *Journal of Banking & Finance*, 141, 106535.
- Pham, A.V., Pham, M.H., & Truong, C. (2022). CEO cultural heritage and the pricing of audit services. *Journal of Business, Finance and Accounting*, 49, 181-214.
- Polderman, T.J.C., Beben, B.B., de Leeuw, C.A., van Sullivan, P.F., Bochoven, A., Visscher, P.M., & Posthuma, D. (2015). Meta-analysis of the heritability of human traits based on fifty years of twin studies. *Nature Genetics*, 47, 702-709.
- Post, J.M. (1986). Narcissism and the charismatic leader-follower relationship. *Political Psychology*, 7, 675-688.
- Resick, C.J., Hanges, P.J., Dickson, M.W., & Mitchelson, J.K. (2006). A Cross-cultural examination of the endorsement of ethical leadership. *Journal of Business Ethics*, 63, 345-359.
- Resick, C.J., Martin, G.S., Keating, M.A., Dickson, M.W., Kwan, H.K., & Peng, C. (2011). What ethical leadership means to me: Asian, American, and European perspectives. *Journal of Business Ethics*, 101, 435-457.
- Rossberger, R.J., & Krause, D.E. (2015). Participative and team-oriented leadership styles, countries' education level, and national innovation: The mediating role of economic factors and national cultural practices. *Cross-Cultural Research*, 49, 20-56.
- Samnani, A-K., & Singh, P. (2013). When leaders victimize: The role of charismatic leaders in facilitating group pressures. *Leadership Quarterly*, 24, 189-202.
- Sankowsky, D. (1995). The charismatic leader as narcissist: Understanding the abuse of power. *Organizational Dynamics*, 23, 57-71.
- Schoenfeld, B.N. (1948). The psychological characteristics of leadership. *Social Forces*, 26, 391-396.
- Scott, W. R. (1992). *Organizations: Rational, Natural, and Open Systems*. Englewood Cliffs, NJ: Prentice Hall.
- Shamir, B., House, R.J., & Arthur, M.B. (1993). The motivational effects of charismatic leadership: A self-concept based theory. *Organization Science*, 4, 577-594.
- Si, Y., & Xia, C. (2023). The effect of human capital on stock price crash risk. *Journal of Business Ethics*, 187, 589-609.
- Smith, D.R., & Hasselfeld, K.A. (2013). Dark Side Leadership: A History and Organizing Template. Business Administration Faculty Presentations, 89. Available at: [https://digitalcommons.cedarville.edu/business\\_administration\\_presentations/89](https://digitalcommons.cedarville.edu/business_administration_presentations/89)
- Stachowicz-Stanusch, A. (2011). Destructive sides of charismatic leadership. *Human Resources Management*, 1, 113-125.
- Stephan, U., & Pathak, S. (2016). Beyond cultural values? Cultural leadership ideas and entrepreneurship. *Journal of Business Venturing*, 31, 505-523.
- Stevenson, R., & Du, L. (2021). Carlos Ghosn's Downfall at Nissan and the Aftermath. *Bloomberg*, March 29, Available at: <https://www.bloomberg.com/news/articles/2021-03-29/carlos-ghosn-s-downfall-at-nissan-and-the-aftermath-quicktake>

- Tosi, H.L., Misangyi, V.F., Fanelli, A., Waldman, D.A., & Yammarino, F.J. (2004). CEO charisma, compensation, and firm performance. *Leadership Quarterly*, 15, 405-420.
- Tourish, D., & Pinnington, A. (2002). Transformational leadership, corporate cultism and the spirituality paradigm: An unholy trinity in the workplace? *Human Relations*, 55, 147-172.
- Tourish, D., & Vatcha, N. (2005). Charismatic leadership and corporate cultism at Enron: The elimination of dissent, the promotion of conformity and organizational collapse. *Leadership*, 1, 455-480.
- Tucker, J.W., & Zarowin, P.A. (2006). Does income smoothing improve earnings informativeness? *Accounting Review*, 81, 251-270.
- Van Hemmen, S., Alvarez, C., Peris-Ortiz, M., & Urbano, D. (2015). Leadership styles and innovative entrepreneurship: An international study. *Cybernetics and Systems*, 46, 271-286.
- Van Vugt, M., & Grabo, A.E. (2015). The many faces of leadership: An evolutionary-psychology approach. *Current Directions in Psychological Science*, 24, 484-489.
- Van Vugt, M., & Von Rueden, C.R. (2020). From genes to minds to cultures: Evolutionary approaches to leadership. *Leadership Quarterly*, 31, 101404.
- Van Vugt, M., Hogan, M., & Kaiser, R.B. (2008). Leadership, followership, and evolution some lessons from the past. *American Psychologist*, 63, 182-196.
- Van Vugta, M., & von Rueden, C.R. (2020). From genes to minds to cultures: Evolutionary approaches to leadership. *Leadership Quarterly*, 31, 101404.
- Vlachos, P.A., Panagopoulos, N.G., & Rapp, A.A. (2013). Feeling good by doing good: employee CSR-induced attributions, job satisfaction, and the role of charismatic leadership. *Journal of Business Ethics*, 118, 577-588.
- Waldman, D.A., de Luque, M.S., Washburn, N., House, R.J., Adetoun, B., Barrasa, A., Bobina, M., Bodur, M., Chen, Y.-J., Debbarma, S., Dorfman, P., Dzuvichu, R.R., Evcimen, I., Fu, P., Grachev, M., Duarte, R.G., Gupta, V., Hartog, D.N.D., de Hoogh, A.H.B., Howell, J., Jone, K.-Y., Kabasakal, H., Konrad, E., Koopman P.L., Lang, R., Lin C.-C., Liu, J., Martinez, B., Mundley, A.E., Papalexandris, N., Peng, T.K., Prieto, L., Quigley, N., Rajasekar, J., Rodriguez, F.G., Steyer, J., Tanure, B., Thierry, H., Thomas V.M., van de Berg, P.T., & Wilderom, C.P.M. (2006). Cultural and leadership predictors of corporate social responsibility values of top management: A GLOBE study of 15 countries. *Journal of International Business Studies*, 37, 823-837.
- Wallis, J., & Dollery, B. (1997). An evaluation of leadership as a response to agency failure in the public sector. *Public Administration*, 75, 247-265.
- Wang, L., Zhu, W., Peng, T., & Hu, J. (2022). Employee quality and stock price crash risk. *Asia-Pacific Journal of Accounting & Economics*, 30, 1047-1066.
- Weber, M. (1947). *The theory of social and economic organizations* (T. Parsons, Trans.). New York: Free Press.
- Wegge, J., Jungbauer, K.-L., & Shemla, M. (2022). When inspiration does not fit the bill: Charismatic leadership reduces performance in a team crisis for followers high in self-direction. *Journal of Management & Organization*, 22, 1201-1218.
- White, A. E., Kenrick, D. T., & Neuberg, S. L. (2013). Beauty at the ballot box: Disease threats predict preferences for physically attractive leaders. *Psychological Science*, 24, 2429-2436.
- Wilderom, C.P.M., van den Berg, P.T., & Wiersma, U.J. (2012). A longitudinal study of the effects of charismatic leadership and organizational culture on objective and perceived corporate performance. *Leadership Quarterly*, 23, 835-848.
- Winton, N. (2018). Renault Stock Price Hit As CEO Carlos Ghosn Arrested in Japan. *Forbes*, November 19, Available at: <https://www.forbes.com/sites/neilwinton/2018/11/19/renault-stock-price-hit-as-ceo-ghosn-arrested-in-japan/?sh=1cbc362c16c3>

- Wu, K., & Lai, S. (2020). Intangible intensity and stock price crash risk. *Journal of Corporate Finance*, 64, 101682.
- Xu, N., Li, X., Yuan, Q., & Chan, K.C. (2014). Excess perks and stock price crash risk: Evidence from China. *Journal of Corporate Finance*, 25, 419-434.
- Yildiz, Y., & Karan, M.B., (2020). Environmental policies, national culture, and stock price crash risk: Evidence from renewable energy firms. *Business Strategy and the Environment*, 29, 2374-2391.
- Yousefi, H., Yung, K., & Najand, M. (2023). From low resource slack to inflexibility: The share price effect of operational efficiency. *International Review of Financial Analysis*, 90, 102927.
- Yukl, G. (1993). A retrospective on Robert House's "1976 theory of charismatic leadership" and recent revisions. *Leadership Quarterly*, 4, 367-373.
- Zhang, X., Liang, L., Tian, G., & Tian, Y. (2020). Heroes or Villains? The Dark Side of Charismatic Leadership and Unethical Pro-organizational Behavior. *International Journal of Environmental Research and Public Health*, 17, 5546.
- Zuo, J., Zhang, W., Hu, M., Feng, X., & Zou, G. (2022). Employee relations and stock price crash risk: Evidence from employee lawsuits. *International Review of Financial Analysis*, 82, 102188.

**Table 1****Charismatic leadership and stock price crash risk by country**

This table presents the distribution of Charismatic leadership style and stock price crash risk measures by country. The sample consists of firm-year observations. All variables are defined in the Appendix.

Country	Charismatic leadership	NSkew	Duvol	Count	# obs	# firms
Argentina	5.978	-0.317	-0.173	-0.192	1,183	102
Australia	6.087	-0.123	-0.074	-0.067	24,777	2,690
Austria	6.024	-0.158	-0.085	-0.073	1,246	120
Brazil	6.004	-0.192	-0.096	-0.112	2,211	242
Canada	6.155	-0.147	-0.086	-0.078	15,089	1,701
China	5.563	-0.117	-0.068	-0.059	34,707	3,504
Colombia	6.041	-0.314	-0.150	-0.183	663	65
Czech Republic	5.910	-0.384	-0.157	-0.159	252	59
Denmark	6.004	-0.179	-0.103	-0.108	2,337	268
Egypt	5.569	-0.357	-0.194	-0.181	2,014	217
Finland	5.935	-0.155	-0.088	-0.081	1,549	162
France	4.928	-0.193	-0.110	-0.099	12,227	1,195
Germany	5.845	-0.191	-0.107	-0.098	9,372	948
Greece	6.014	-0.169	-0.096	-0.110	3,450	324
Hong Kong	5.663	-0.314	-0.168	-0.196	21,507	1,923
Hungary	5.909	-0.274	-0.144	-0.218	633	68
India	5.848	-0.230	-0.128	-0.127	10,901	1,552
Indonesia	6.145	-0.278	-0.142	-0.181	7,292	618
Ireland	6.083	-0.114	-0.065	-0.102	551	62
Israel	6.231	-0.152	-0.083	-0.079	5,107	527
Italy	5.985	-0.291	-0.159	-0.175	3,380	386
Japan	5.486	-0.166	-0.092	-0.097	66,537	4,843
Malaysia	5.887	-0.283	-0.149	-0.186	16,431	1,284
Mexico	5.655	-0.293	-0.151	-0.155	2,087	197
Netherlands	5.977	-0.193	-0.113	-0.081	2,721	241
New Zealand	5.873	-0.084	-0.057	-0.050	2,086	209
Philippines	6.334	-0.279	-0.141	-0.187	4,008	294
Poland	5.668	-0.206	-0.111	-0.126	5,355	692
Portugal	5.753	-0.268	-0.137	-0.170	1,099	105
Qatar	4.510	-0.296	-0.157	-0.164	525	47
Russia	5.663	-0.377	-0.179	-0.236	2,090	280
Singapore	5.951	-0.172	-0.095	-0.100	10,850	982
South Africa	5.429	-0.107	-0.061	-0.050	5,981	690
South Korea	5.526	-0.276	-0.153	-0.162	26,655	2,565
Spain	5.898	-0.201	-0.109	-0.107	2,009	248
Sweden	5.841	-0.181	-0.106	-0.089	4,055	549
Switzerland	5.929	-0.172	-0.101	-0.088	4,512	341
Thailand	5.777	-0.233	-0.123	-0.143	9,917	834
Turkey	5.955	-0.424	-0.227	-0.244	4,056	408
United Kingdom	6.008	-0.238	-0.124	-0.147	19,035	2,886
United States	6.118	-0.071	-0.047	-0.017	86,606	8,265
Mean and Total	5.813	-0.176	-0.098	-0.098	437,063	42,693

**Table 2**

## Summary statistics

This table presents the summary statistics for a sample of 41 countries over the period 1990 to 2019. The sample consists of firm-year observations. All variables are defined in the Appendix.

Variables	# obs	Mean	Std. dev	25 <sup>th</sup>	Median	75 <sup>th</sup>
NSkew	437,063	-0.176	0.676	-0.526	-0.167	0.175
DuVol	437,063	-0.098	0.329	-0.305	-0.100	0.103
Count	437,063	-0.098	0.585	0.000	0.000	0.000
Charismatic leadership	437,063	5.813	0.303	5.526	5.887	6.118
Financial Opacity	403,812	0.732	1.245	0.139	0.289	0.762
Overinvestment	428,103	0.062	0.140	0.000	0.000	0.052
Skew <sub>t-1</sub>	437,063	-0.173	0.660	-0.518	-0.166	0.170
DTurnover	437,063	-0.020	8.237	-0.016	0.000	0.012
Size	437,063	5.067	2.175	3.531	4.971	6.530
ROA (%)	437,063	-0.797	17.610	0.400	3.540	7.430
BTM	437,063	0.917	2.518	0.357	0.680	1.220
Leverage (%)	437,063	31.514	20.539	3.830	18.390	34.920
Returns	437,063	-0.002	0.002	-0.002	-0.001	0.000
Ln(Age)	437,063	2.330	0.859	1.796	2.473	2.985
DACC	437,063	0.227	0.488	0.029	0.070	0.180
Ln(GDP)	437,063	10.114	0.982	9.623	10.612	10.767
Market-cap-to-GDP (%)	437,063	132.730	184.572	64.611	95.584	128.074
Industry HHI	437,063	0.073	0.029	0.058	0.065	0.080

**Table 3****Correlation matrix**

This table presents pairwise correlation between the variables of our sample. The sample consists of firm-year observations for a sample of 41 countries over the period 1990 to 2019. The sample consists of firm-year observations. All variables are defined in the Appendix. The symbols *c*, *b*, and *a* denote statistical significance at the 10%, 5% and 1% levels, respectively, using a two-tail test.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Charismatic leadership (1)	1.00														
Financial opacity (2)	0.21 <sup>a</sup>														
Overinvestment (3)	0.06 <sup>a</sup>	0.14 <sup>a</sup>													
Skew <sub>t-1</sub> (4)	0.03 <sup>a</sup>	-0.01 <sup>a</sup>	-0.03 <sup>a</sup>												
DTurnover (5)	0.00	0.00	0.00	0.00											
Size (6)	0.00	-0.06 <sup>a</sup>	-0.03 <sup>a</sup>	0.06 <sup>a</sup>	0.00										
ROA (7)	-0.01 <sup>a</sup>	-0.08 <sup>a</sup>	-0.03 <sup>a</sup>	0.00	0.00	0.03 <sup>a</sup>									
BTM (8)	-0.04 <sup>a</sup>	-0.06 <sup>a</sup>	-0.03 <sup>a</sup>	0.00 <sup>c</sup>	0.00	-0.11 <sup>a</sup>	0.00 <sup>b</sup>								
Leverage (9)	0.00	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.00	0.00	0.00	-0.01 <sup>a</sup>	-0.00 <sup>c</sup>							
Returns (10)	-0.13 <sup>a</sup>	-0.21 <sup>a</sup>	-0.13 <sup>a</sup>	0.04 <sup>a</sup>	-0.01 <sup>a</sup>	0.42 <sup>a</sup>	0.05 <sup>a</sup>	0.03 <sup>a</sup>	0.00						
Ln(Age) (11)	-0.02 <sup>a</sup>	-0.07 <sup>a</sup>	-0.11 <sup>a</sup>	-0.01 <sup>a</sup>	0.00 <sup>c</sup>	0.21 <sup>a</sup>	0.01 <sup>a</sup>	0.03 <sup>a</sup>	0.00	0.19 <sup>a</sup>					
DACC  (12)	0.18 <sup>a</sup>	0.64 <sup>a</sup>	0.14 <sup>a</sup>	-0.01 <sup>a</sup>	0.00	-0.06 <sup>a</sup>	-0.04 <sup>a</sup>	-0.04 <sup>a</sup>	0.01 <sup>a</sup>	-0.17 <sup>a</sup>	-0.04 <sup>a</sup>				
Ln(GDP) (13)	0.13 <sup>a</sup>	0.08 <sup>a</sup>	0.00 <sup>b</sup>	0.04 <sup>a</sup>	0.00 <sup>c</sup>	0.14 <sup>a</sup>	-0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.00	-0.02 <sup>a</sup>	0.10 <sup>a</sup>	0.07 <sup>a</sup>			
Market-cap-to-GDP (14)	-0.04 <sup>a</sup>	0.24 <sup>a</sup>	0.03 <sup>a</sup>	-0.05 <sup>a</sup>	0.00	0.03 <sup>a</sup>	0.00	0.03 <sup>a</sup>	0.00	-0.05 <sup>a</sup>	0.00	0.18 <sup>a</sup>	0.16 <sup>a</sup>		
Industry HHI (15)	0.10 <sup>a</sup>	-0.05 <sup>a</sup>	0.01 <sup>a</sup>	-0.03 <sup>a</sup>	-0.00 <sup>b</sup>	-0.03 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.00	0.00 <sup>b</sup>	-0.08 <sup>a</sup>	-0.04 <sup>a</sup>	-0.24 <sup>a</sup>	-0.07 <sup>a</sup>	



**Table 4**  
Baseline regressions

This table presents panel regression results for a sample of firms headquartered in 41 countries over the period 1990 to 2019. The sample consists of firm-year observations. The dependent variable is NSkew in models 1, Duvol in models 2 and Count in models 3, respectively. All variables are defined in the Appendix. All continuous variables are winsorized at 1% and 99% level. Robust *t*-statistics in parentheses are computed using standard errors clustered at the firm level. The symbols \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5% and 1% levels, respectively, using a two-tail test.

Variables	NSkew (1)	Duvol (2)	Count (3)
Charismatic leadership	0.023*** (2.87)	0.014*** (3.52)	0.013** (1.98)
NSkew <sub>t-1</sub>	0.081*** (32.43)	0.040*** (36.70)	0.049*** (30.96)
DTurnover	0.027*** (3.42)	0.007* (1.78)	0.027*** (3.63)
Size	0.033*** (45.16)	0.016*** (44.05)	0.022*** (38.18)
ROA	0.025*** (3.48)	0.014*** (3.92)	0.014** (2.30)
BTM	-0.017*** (-13.50)	-0.010*** (-16.01)	-0.005*** (-4.70)
Leverage	0.033*** (5.68)	0.017*** (5.78)	0.024*** (5.16)
Returns	-0.456 (-0.70)	0.287 (0.90)	-1.609*** (-3.06)
Ln(Age)	-0.023*** (-17.56)	-0.010*** (-15.38)	-0.019*** (-16.69)
DACC	0.009*** (3.87)	0.005*** (4.44)	0.004** (2.19)
Ln(GDP)	0.018*** (9.01)	0.009*** (8.74)	0.008*** (5.11)
Market-cap-to-GDP	-0.017*** (-25.52)	-0.009*** (-26.70)	-0.011*** (-19.06)
Industry HHI	-0.080 (-1.39)	-0.049* (-1.71)	-0.033 (-0.70)
Constant	-0.554*** (-11.15)	-0.297*** (-11.90)	-0.299*** (-7.30)
Industry FE	Yes	Yes	Yes
Region FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
N	437,063	437,063	437,063
Adjusted R <sup>2</sup>	0.040	0.042	0.021

**Table 5****Accounting for national culture**

This table presents the baseline regressions with the addition of cultural dimensions. Culture is measured using the first two principal components of all six cultural dimensions of Hofstede. The dependent variable is NSkew in models 1, Duvol in models 2 and Count in models 3, respectively. All variables are defined in the Appendix. All continuous variables are winsorized at 1% and 99% level. Robust *t*-statistics in parentheses are computed using standard errors clustered at the firm level. The symbols \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5% and 1% levels, respectively, using a two-tail test.

Variables	NSkew (1)	Duvol (2)	Count (3)
Charismatic leadership	0.018** (2.12)	0.009** (2.15)	0.012* (1.67)
1 <sup>st</sup> principal component of cultural indicators	-0.053*** (-16.00)	-0.027*** (-16.50)	-0.034*** (-12.86)
2 <sup>nd</sup> principal component of cultural indicators	0.003 (1.33)	0.003*** (2.98)	0.000 (0.25)
Baseline controls	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Region FE	Yes	Yes	Yes
N	437,063	437,063	437,063
Adjusted R <sup>2</sup>	0.041	0.043	0.021

**Table 6****Robustness checks**

This table presents panel regression results for a sample of firms headquartered in 41 countries over the period 1990 to 2019. The sample consists of firm-year observations. The dependent variable is NSkew in models 1, 4, and 7, Duvol in models 2, 5, and 8, and Count in models 3, 6, and 9, respectively. All variables are defined in the Appendix. All continuous variables are winsorized at 1% and 99% level. Robust *t*-statistics in parentheses are computed using standard errors clustered at the firm level. The symbols \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5% and 1% levels, respectively, using a two-tail test.

Variables	Excluding the Global Financial Crisis period (2007-2009)			Excluding U.S.A.			Excluding Japan		
	NSkew (1)	Duvol (2)	Count (3)	NSkew (4)	Duvol (5)	Count (6)	NSkew (7)	Duvol (8)	Count (9)
Charismatic leadership	0.026*** (3.06)	0.015*** (3.65)	0.015** (2.13)	0.023*** (2.92)	0.014*** (3.58)	0.014** (2.10)	0.020** (2.50)	0.012*** (3.09)	0.011* (1.69)
Baseline controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	372,455	372,455	372,455	350,457	350,457	350,457	370,526	370,526	370,526
Adjusted R <sup>2</sup>	0.038	0.040	0.020	0.033	0.035	0.016	0.042	0.045	0.022

**Table 7**

## Endogeneity controls

This table presents 2SLS IV regressions for a sample of firms headquartered in 41 countries over the period 1990 to 2019. The sample consists of firm-year observations. Models 1 and 5 presents the first-stage regression, where *Charismatic* is the dependent variable. Models 2, 3, 4, 6, 7, and 8 present the two-stage regressions where the dependent variable is either *NSkew*, *Duval* or *Count*. All continuous variables are winsorized at 1% and 99% level. Robust *t*-statistics in parentheses are computed using standard errors clustered at the firm level. The symbol \*\*\* denote statistical significance at the 1% level, using a two-tail test. The Underidentification test reports the value of the Kleibergen-Paap rk LM. The Weak identification test reports the value of the Keibergen-Paap F-stat.

Variables	Charismatic (1)	NSkew (2)	Duval (3)	Count (4)	Charismatic (5)	NSkew (6)	Duval (7)	Count (8)
Resistance to diseases	2.701*** (59.78)							
Genetic diversity					2.018*** (5.58)			
Charismatic leadership (Instrumented)		0.189*** (9.26)	0.109*** (10.71)	0.122*** (6.77)		0.965*** (5.53)	0.399*** (4.81)	0.733*** (5.04)
Baseline controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Underidentification test</i>	22.73				32.26			
<i>Weak identification test</i>	699.30				31.12			
N	437,063	437,063	437,063	437,063	437,063	437,063	437,063	437,063
Adjusted R <sup>2</sup>	0.665	0.039	0.041	0.020	0.762	0.037	0.038	0.020

**Table 8****Charismatic leadership style based on CEO's country of origin**

This table presents panel regression results for a sample of firms headquartered in 41 countries over the period 1990 to 2019. The sample consists of firm-year observations. The dependent variable is NSkew in models 1, Duvol in models 2 and Count in models 3, respectively. All variables are defined in the Appendix. All continuous variables are winsorized at 1% and 99% level. Robust *t*-statistics in parentheses are computed using standard errors clustered at the firm level. The symbols \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5% and 1% levels, respectively, using a two-tail test.

Variables	NSkew (1)	Duvol (2)	Count (3)
Charismatic Leadership based on CEO's country	0.040*** (2.81)	0.019** (2.49)	0.037*** (2.80)
Board size	-0.003** (-2.37)	-0.001** (-2.06)	-0.002* (-1.67)
Board gender diversity	-0.044 (-1.40)	-0.030* (-1.88)	-0.031 (-1.06)
CEO age	0.001* (1.84)	0.000 (1.47)	0.001 (1.63)
Female CEO	-0.008 (-0.49)	-0.003 (-0.32)	-0.015 (-0.96)
Baseline controls	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Region FE	Yes	Yes	Yes
N	52,773	52,773	52,773
Adjusted R <sup>2</sup>	0.051	0.055	0.024

**Table 9****Exploring possible channels: the role of managerial actions**

This table presents the results of a two-stage regression analysis tests for a sample of firms headquartered in 41 countries over the period 1990 to 2019. The sample consists of firm-year observations. In the first stage regressions (models 1 and 5), the dependent variable is either Opacity or Overinvestment. In the second stage regressions (models 2, 3, 4, 6, 7, and 8) the dependent variable is either NSkew, Duvol or Count. All variables are defined in the Appendix. All continuous variables are winsorized at 1% and 99% level. Robust *t*-statistics in parentheses are computed using standard errors clustered at the firm level. The symbols \* and \*\*\* denote statistical significance at the 10% and 1% levels, respectively, using a two-tail test.

Variables	Opacity (1)	NSkew (2)	Duvol (3)	Count (4)	Overinvestment (5)	NSkew (6)	Duvol (7)	Count (8)
Charismatic leadership	0.491*** (28.95)				0.006*** (3.98)			
Financial $\widehat{\text{Opacity}}$		0.051*** (3.06)	0.032*** (3.81)	0.026* (1.88)				
Overinvestment						3.464*** (2.65)	2.123*** (3.28)	1.874* (1.74)
Baseline controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	403,812	403,812	403,812	403,812	428,103	428,103	428,103	428,103
Adjusted R <sup>2</sup>	0.267	0.041	0.043	0.021	0.046	0.040	0.042	0.021

**Table 10****Moderating effects: the role of formal institutions**

This table presents panel regression results for a sample of firms headquartered in 41 countries over the period 1990 to 2019. The sample consists of firm-year observations. The dependent variable is *NSkew* in models 1 and 4, *Duvol* in models 2 and 5, and *Count* in models 3 and 6, respectively. All continuous variables are winsorized at 1% and 99% level. Robust *t*-statistics in parentheses are computed using standard errors clustered at the firm level. The symbols \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5% and 1% levels, respectively, using a two-tail test.

Variables	NSkew (1)	Duvol (2)	Count (3)	NSkew (4)	Duvol (5)	Count (6)
Charismatic leadership	0.463*** (3.10)	0.179*** (4.42)	0.332*** (2.91)	0.101*** (2.59)	0.062*** (3.50)	0.050** (2.22)
Minority investors' protection	0.032** (2.39)	0.011*** (3.21)	0.023** (2.26)			
Charismatic leadership × Minority investors' protection	-0.005** (-2.36)	-0.002*** (-3.11)	-0.004** (-2.23)			
Law and Order				0.125*** (2.73)	0.072*** (3.44)	0.067** (2.48)
Charismatic leadership × Law & Order				-0.017** (-2.13)	-0.010*** (-2.87)	-0.008* (-1.77)
Baseline controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
N	437,063	437,063	437,063	437,063	437,063	437,063
Adjusted R <sup>2</sup>	0.039	0.040	0.021	0.036	0.040	0.021

**Table 11**  
Marginal effects

This table presents the average marginal effect of the *Charismatic leadership* on stock price crash risk for different values of the *Minority protection rights* and *Law and Order* indicators shown in Column 1. Columns 2, 4, and 6 report the average marginal effect, while Columns 3, 5, and 7 report Z-statistics based on standard errors obtained with the Delta method. The symbols \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5% and 1% levels, respectively, using a two-tail test.

Panel A						
	<i>NSkew</i>		<i>Duval</i>		<i>Count</i>	
Minority Investors' Protection	<i>dy/dx</i>	<i>Z-statistic</i>	<i>dy/dx</i>	<i>Z-statistic</i>	<i>dy/dx</i>	<i>Z-statistic</i>
(1)	(2)	(3)	(4)	(5)	(6)	(7)
54	0.176***	5.76	0.080***	4.99	0.127***	5.35
58	0.154***	6.75	0.072***	5.98	0.112***	6.32
62	0.133***	7.96	0.065***	7.19	0.096***	7.73
66	0.112***	7.92	0.057***	7.32	0.081***	8.45
70	0.091***	5.40	0.049***	5.30	0.066***	5.97
74	0.069***	3.02	0.041***	3.29	0.051***	3.24
78	0.048	1.57	0.033**	2.02	0.036*	1.65
82	0.027	0.69	0.025	1.22	0.020	0.73
86	0.006	0.12	0.018	0.7	0.005	0.15
Panel B						
	<i>NSkew</i>		<i>Duval</i>		<i>Count</i>	
Law & order	<i>dy/dx</i>	<i>Z-statistic</i>	<i>dy/dx</i>	<i>Z-statistic</i>	<i>dy/dx</i>	<i>Z-statistic</i>
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2.0	0.068***	2.81	0.042***	3.81	0.033**	2.45
2.5	0.060***	2.90	0.037***	3.93	0.029**	2.53
3.0	0.052***	3.00	0.032***	4.06	0.025***	2.62
3.5	0.044***	3.10	0.027***	4.18	0.021***	2.69
4.0	0.035***	3.14	0.022***	4.20	0.017***	2.65
4.5	0.027***	2.93	0.017***	3.85	0.013**	2.32
5.0	0.019**	2.17	0.011***	2.81	0.009	1.61
5.5	0.010	1.08	0.006	1.39	0.005	0.78
6.0	0.002	0.18	0.001	0.24	0.001	0.14



## Appendix - Definition of Variables

Variable	Description
NSkew	The firms' negative skewness obtained from eq. (2).
DuVol	The firm's down-to-up volatility obtained from eq. (3).
Count	The difference between the number of crash and jump weeks in a year. Crash (jump) week is a week where its firm-specific return is less (more) than 3.09 standard deviation below (above) the mean firm-specific return.
Charismatic leadership	Country-specific score for the culturally endorsed charismatic leadership style from the Global Leadership and Organizational Behavior Effectiveness (GLOBE) project. It shows the extend of societal / cultural endorsement of a leadership style that reflects the following six primary leadership dimensions and the associated leadership attributes of the GLOBE project: (a) visionary (i.e. foresight, prepared, anticipatory, plans ahead), (b) inspirational (i.e. enthusiastic, positive, morale booster, motive arouser), (c) self-sacrifice (i.e. risk taker, self-sacrificial, convincing), (d) integrity (i.e. honest, sincere, just, trustworthy), (e) decisive (i.e. willful, decisive, logical, intuitive) and (f) performance oriented (i.e. improvement-oriented, excellence-oriented, performance-oriented).
DTurnover	The firm's average monthly share turnover of the fiscal year minus the average monthly share turnover of the previous year. Monthly share turnover is calculated as the monthly share trading volume divided by shares outstanding.
Size	The natural logarithm of the firm's market value of equity.
ROA	The ratio of the firm's net income to the book value of assets.
BTM	The ratio of the firm's book value of equity to market value of equity.
Leverage	The ratio of the firm's book value of debt to the book value of assets.
Returns	The cumulative firm-specific weekly returns over the fiscal year.
Ln(Age)	The natural logarithm of the firm's age plus one. Age is defined as the number of years since the IPO year.
DACC	The absolute value of discretionary accruals measured as the residuals of the performance-controlled accruals model of Tucker and Zarowin (2006).
Ln(GDP)	The natural logarithm of GDP (measured in USD).
Market-cap-to-GDP	The ratio of stock market capitalization to GDP.
Industry HHI	Industry concentration ratio, as measured by the industry Herfindahl index on an annual basis.
1st principal component of cultural indicators	The first principal component obtained from a principal component analysis of the following six national cultural indicators of Hofstede: power distance, individualism, masculinity, uncertainty avoidance, long term orientation, and indulgence.

2nd principal component of cultural indicators	The second principal component obtained from a principal component analysis of the following six national cultural indicators of Hofstede: power distance, individualism, masculinity, uncertainty avoidance, long term orientation, and indulgence.
Resistance to diseases	Index of human leukocyte antigen (HLA) heterozygosity developed by Cook (2015), used as a proxy of genetically determined resistance to infectious diseases.
Genetic diversity	The expected heterozygosity (genetic diversity) of a given country as predicted by (the extended sample definition of) migratory distance from East Africa (i.e., Addis Ababa, Ethiopia). Ashraf and Galor (2013) calculated this measure by applying the regression coefficients obtained from regressing expected heterozygosity on migratory distance at the ethnic group level, using the worldwide sample of 53 ethnic groups from the HGDP-CEPH Human Genome Diversity Cell Line Panel.
Board size	Number of board directors.
Board gender diversity	Percentage of female directors in the board.
CEO age	CEO's age.
Female CEO	Dummy variable that takes the value of 1 if the CEO is female and the value of 0 otherwise.
Financial opacity	The 3-year moving sum of absolute discretionary accruals as in Hutton et al. (2009).
Overinvestment	Indicator of excess investment in total assets as in Dang et al (2019). Dummy variable, which is based on the residuals of a regression of total asset growth on sales growth run by industry-year, that takes the value of 1 if the residual is greater than 0, and the value of 0 otherwise.
Minority investors' protection	The data come from a questionnaire administered to corporate and securities lawyers and are based on securities regulations, company laws, civil procedure codes and court rules of evidence. The minority investors' protection index is based on two sub-indices: (i) the conflict of interest regulation sub-index measures the protection of shareholders against directors' misuse of corporate assets for personal gain by considering the following three dimensions of regulation that address conflicts of interest: (a) extent of disclosure (transparency of related-party transactions), (b) extent of director liability (shareholders' ability to sue and hold directors liable for self-dealing), (c) ease of shareholder suits (access to evidence and allocation of legal expenses in shareholder litigation); (ii) the shareholder governance sub-index measures shareholders' rights in corporate governance by considering the following three dimensions of good governance: (a) extent of shareholder rights (shareholders' rights and role in major corporate decisions), (b) extent of ownership and control (governance safeguards protecting shareholders from undue board control entrenchment), (c) extent of corporate transparency (transparency on ownership stakes, compensation, audits and financial prospects).

Law & Order	Indicator of strength of country-level law and order from the International Country Risk Guide, is a single component that is based on two elements that are being assessed separately by ICRG. Each score is scored from zero to three points, and the overall indicator takes values from 0 to 6. To assess the “Law” element, the strength and impartiality of the legal system are considered, while the “Order” element is an assessment of popular observance of the law.
-------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------