Accepted Manuscript

DOI: https://doi.org/10.1177/01492063221133744

Citation: Sadri, M., & Moschieri, C. (2024). The Perverse Consequence of Firms' Negative Publicity in Stigmatized Industries: CEOs' Board Appointments. Journal of Management, 50(4), 1259-1294.

THE PERVERSE CONSEQUENCE OF FIRMS' NEGATIVE PUBLICITY IN STIGMATIZED INDUSTRIES: CEOS' BOARD APPOINTMENTS

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Abstract

This study examines whether and when in a stigmatized industry firms' negative publicity can lead to the appointment of their CEOs to the boards of directors of other firms within that sector. Building on research on ingroup identification and on stigma, we propose that within a stigmatized industry, when a firm receives negative publicity, its CEO is more likely to join the board of other firms in the industry, possibly because these other firms interpret the negative publicity as a sign of social identification of the CEO with the stigmatized industry. We also suggest that this relationship is more likely when the negative publicity reveals information otherwise not available about the CEO. We test our hypotheses using a novel, hand-collected dataset of 408 CEOs in 205 firms in the global arms industry, between 1998 and 2017, and find that within this stigmatized industry, when a firm receives negative publicity, its CEO is more likely to join the board of other firms in the industry, and that lower levels of CEO's reputational capital and visibility magnify this effect. Our findings advance the conversations in stigma research about upper echelons, highlighting the importance of internal and external actors and of the type of stigma, when investigating the consequences of stigma for upper echelons' careers.

Keywords: Arms industry, Boards of directors, Core stigma, CEOs, Negative publicity, Stigmatized industries

THE PERVERSE CONSEQUENCE OF FIRMS' NEGATIVE PUBLICITY IN STIGMATIZED INDUSTRIES: CEOS' BOARD APPOINTMENTS

Stigmatized industries (e.g., arms producers, tobacco companies, men's bathhouses) are characterized by social contestation and hostile audiences (Durand & Vergne 2015). Firms operating in these industries frequently receive negative publicity, in the form of negative coverage of firms' controversial and problematic behaviors, actions and values (Durand & Vergne, 2015; Piazza & Perretti, 2015) from various audiences, such as media and social activists, condemning the morally deviant nature of these industries and disapproving the individuals working there. For example, recently in 2021 activists criticized the CEO of General Dynamics, a U.S. defense large corporation, blaming her for her firm's role in human rights abuses and civilian deaths during wars.[1] As a result of this negative publicity and to avoid the possibility that stigma transfers from the executives of a firm operating in a stigmatized industry to other individuals or firms outside that industry, these individuals or firms may distance themselves from those of the stigmatized industry (e.g., Ashforth, Kreiner, Clark, & Fugate, 2007). This reaction can hamper the careers of executives working in stigmatized industries *outside* the stigmatized context (Hudson and Okhuysen, 2009; Pozner, 2008; Sutton and Callahan 1987; Warren, 2007).

However, actors within the stigmatized industry (i.e., insiders) may perceive the negative publicity around firms as a signal of *belonging* to the industry and of conformity to its field-level logics (Greenwood et al., 2010; Haveman and Rao, 1997; Roulet, 2019) and hence even value positively such negative publicity. As firms' actions and behaviors are partially attributed to their CEOs (Lange, Boivie, & Westphal, 2015), other firms within a stigmatized industry may even reward the CEOs of firms that received negative publicity and support them and their career

inside the industry (e.g., with more board memberships). Despite this important difference between how insiders versus outsiders may react to the negative publicity of firms in stigmatized industries, little is known about whether and how the negative publicity around firms in stigmatized industries can influence the sustenance and advancement of the career of individuals' (and especially CEOs') *within* those contexts.

In this study, we explore *whether and when negative publicity for firms in a stigmatized industry can lead to the appointment of their CEOs to the board of other firms within that industry.* Building on the concept of ingroup identification of social identity theory (Hogg 2003; Tajfel & Turner, 1986), we propose that within a stigmatized industry, when a firm receives negative publicity, its CEO can gain more opportunities to join the inner circle of the directors of other firms in the industry, possibly because these other firms interpret the negative publicity as a sign of social identification with the CEO of the publicized firm. We also suggest that this publicity-driven joining of another firm's board is more likely when the negative publicity reveals information otherwise not available about the CEO. Specifically, a CEO of a firm receiving negative publicity is more likely to join the board of other firms within a stigmatized industry, if this CEO has low levels of reputational capital and visibility within the stigmatized context.

We analyze a novel, hand-collected dataset that encompasses the media coverage of stakeholders' criticisms of firms in the global arms industry and their CEOs in the period between 1998 and 2017. This industry represents an ideal setting to examine publicity-driven CEOs' board-joining within a stigmatized context, as firms in the arms industry are frequently vilified by stakeholders, because of their morally deviant behaviors, controversial products, and problematic values (Durand & Vergne, 2015). Hence, there is sufficient variance to test whether increases in negative publicity can affect the targeted firms' CEOs. Our results support our

predictions about the positive effect of firms' negative publicity and their CEOs' board-appointments in other firms within a stigmatized industry. They also offer support to our arguments and about the boundary conditions of such relationship being stronger for CEOs with low levels of reputational capital and visibility.

This study offers a twofold contribution to conversations in stigma research about upper echelons specifically. First, building on ingroup identification and social identity theory (Hogg 2003; Tajfel & Turner, 1986), we highlight the importance of distinguishing between insiders and outsiders (i.e., other firms inside and outside the stigmatized industry) to investigate the consequences of stigma. Different from previous research about the outsiders' negative reaction to the negative publicity of firms in stigmatized contexts (e.g., Hudson and Okhuysen, 2009), we show that insiders value such publicity and in fact reward the CEOs of the targeted firms. This distinction between insiders and outsiders stresses an important boundary condition in studies on stigma by association. While this prior research focused on actors *distancing* themselves from a person associated with stigma (Cowen & Marcel, 2011; Goffman, 1963; Pontikes et al., 2010), we examine the conditions under which firms and individuals *embrace* a person associated with stigma.

Second, we focus on core stigma and failure stigma —respectively stemming from firms' operating in a stigmatized industry and from CEOs' ethical misconducts or performance-related failures— to tease out the different mechanisms under which they influence upper echelons. While the upper echelons literature argued that *failure* stigma damages CEOs (e.g., *decreasing* the likelihood that CEOs can join the board of other firms) (Arthaud-Day, Certo, Dalton, & Dalton, 2006; Semadeni et al., 2008; Withers, Hillman, Cannella, 2012; Withers, Howard, & Tihanyi, 2020), our results suggest that *core* stigma can *increase* the likelihood that CEOs join the board of other firms, but only within the stigmatized industry. One plausible explanation for

this contrasting result is that while failure stigma generally signals the CEO's lack of abilities or poor professional conduct (Haleblian & Rajagopalan, 2006), the negative publicity of a firm in a core stigmatized industry may be a signal of CEO's abilities in that context, motivating more firms within this context to invite the targeted firms' CEOs to their boards. Hence, while failure stigma may constrain the career opportunities of a CEO, core stigma may broaden them – but only within firms inside the stigmatized industries.

Beyond its theoretical contributions, this study also has an important practical insight. If organizational negative publicity can be rewarding for their CEOs, then these CEOs may be inclined to engage their firms in even more controversial practices and behavior. This perverse consequence of stigma may explain the abundance and continuance of firms' corrupt practices in stigmatized industries, highlighting the importance of internal and external governance and control of CEOs in such contexts. Internally, board members may seek strategies to constrain the CEOs and prevent their engaging in controversial practices that could damage the firm's finances and reputation. Externally, social activists may need to revisit their strategies of boycotting and targeting firms in stigmatized industries so that they do not unintentionally trigger or reinforce the vicious cycle of corrupt practices by CEOs in such contexts.

THEORETICAL BACKGROUND AND HYPOTHESES

Stigma and its consequences for CEOs

The morally deviant nature of industries –such as men's bathhouses (Hudson & Okhuysen, 2009), the arms manufacturing (Vergne, 2012), pornography (Jensen & Sandström, 2015), nuclear power plants (Piazza & Perretti, 2015), the finance industry (Roulet, 2015), legal brothels (Wolfe and Blithe, 2015), marijuana markets (Lashley & Pollock, 2020; Khessina, Reis, & Verhaal, 2021), and alcohol, tobacco, and gambling (Grougiou, Dedoulis, & Leventis, 2016)– attracts social contestation and hostility from external audiences that vilify, disapprove and

stigmatize these industries and those persons working there (Devers et al., 2009; Durand & Vergne, 2015; Hudson, 2008; Vergne, 2012).

Organizations and individuals outside the stigmatized group distance themselves from individuals working in stigmatized industries to avoid the transfer of stigma (Barlow, Verhaal, and Hoskins, 2018; Hudson and Okhuysen, 2009; Pontikes, Negro, and Rao, 2010) and its negative financial and reputational consequences (Diestre & Santalo, 2019; Sutton & Callahan, 1987). This reaction of outsiders may limit the career opportunities outside the stigmatized context for workers of a stigmatized industry. For example, even after the legalization of cannabis in Canada, those individuals that mentioned working in this industry in their resumes struggled to find a new job outside this industry. Sex workers also face similar difficulties finding jobs in other professions.[2] However, individuals' careers may advance within a stigmatized industry. Firms in such an industry are themselves already tainted because of their operations in a context with stigmatized practices and values and thus are unlikely to be concerned with the threat of stigma transfer.

The consequences of stigma on the career opportunities for individuals working in a stigmatized industry can be magnified for CEOs. CEOs are perceived to be the most prominent figure and the "face" of their firms (Love et al., 2017) and as such over time they become closely identified with their firms and are held accountable for the actions of their firms (Garbett, 1988; Reidenbach & Pitts, 1986). In fact, the media have directly blamed CEOs of firms in the arms industry for their firms' actions, labeling their salaries as "blood money". Similarly, after the 2007 massacre of civilians by Blackwater, which was a private military contractor in Iraq, Erik Prince, the CEO of Blackwater, became the subject of huge media attacks because of his firm's role in the killing of innocent people. Even after 12 years, he is still the target of journalists' shaming with labels such as "Blackwater's dark prince" or "Disgraced Blackwater founder Erik

Prince".[3] This visibility singles out CEOs in the eyes of public (Wiesenfeld et al., 2008), increases the probability of stigma transfer (Pontikes et al., 2010) and hence may strengthen outsiders' distancing from CEOs.[4]

CEOs' board-joining within the stigmatized industry

Prior research has extensively investigated when CEOs (or firms' executives) join the board of other firms (for a review see Withers, Hillman, & Cannella, 2012). The antecedents of CEOs' board joining fall mainly into the two categories of factors at the individual level and at the level of the appointing firm. Regarding individual-level factors, CEOs' specific knowledge, skills, and experience (Kor & Sundaramurthy, 2009), social capital (Kim & Cannella, 2008), reputation (Deutsch & Ross, 2003), political background (Lester, Zardkoohi, & Cannella, 2008), other directorships (Keys & Li, 2005), gender, ethnicity, and age (Terjesen, Sealy, & Singh, 2009), performance in their firms (Fich, 2005; Wurthmann, 2014), and ingratiatory behavior toward other executives (Westphal & Stern, 2006) influence their outside directorships. About firm characteristics, a CEO's board membership depends on the appointing firm's knowledge and resource needs (Howard, Withers, & Tihanyi, 2017), performance (Hermalin & Weisbach, 1988), regulatory and environmental uncertainty (Boyd, 1990; Luoma & Goodstein, 1999), diversification strategy (Pearce & Zahra, 1992), life cycle stage (Chen, Hambrick, & Pollock, 2008), CEO power (Tosi, Shen, & Gentry, 2003), and level of elite cohesion (Davis, Yoo, & Baker, 2003).

Beyond these factors, we suggest that negative publicity can also predict CEOs' board-joining of other firms within a stigmatized industry. Although negative publicity increases the visibility of CEOs (Wiesenfeld et al., 2008), the probability of stigma transfer, and hence outsiders' distancing (Pontikes et al., 2010), prior research on ingroup identification suggests that ingroup interactions among stigmatized individuals may be different. According to social

identity theory (Tajfel & Turner, 1986), individuals categorize themselves and others who are similar on a dimension that is salient in their context (e.g., working in a stigmatized industry) into an in-group. Individuals within a stigmatized group (e.g., members of an occupation, or ethnic, racial, and sexual minority) support other group members to reduce the internalized negative perceptions of the stigma for the group members (e.g., Ashforth et al., 2007). This support can take different forms, such as affirmation of group memberships and identity (Tobin, Holroyd, Reynolds, & Wigal, 1989), collective action (e.g., working collectively to improve the status of the ingroup in society (Outten & Schmitt, 2015; Outten et al., 2009; Tajfel et al., 1979)), sharing perspectives and emotional experiences related to discrimination (Pflum, Testa, Balsam, Goldblum, & Bongar, 2015), and creating social buffers (e.g., ingroup social networks to validate and justify stigmatized identities and roles (Ashforth et al., 2007)). In this support system among stigmatized individuals, the more the members of stigmatized groups identify with their ingroup, the more likely they are to receive support from other group members (e.g., David et al., 2020; Gaudet & Clément, 2005).

When in a stigmatized industry the negative publicity around a specific firm increases, to avoid stigma transfer, actors outside that industry are likely to keep a distance from the CEOs of firms of the stigmatized context (Wiesenfeld et al., 2008). However, executives of other firms in the stigmatized industry may perceive that publicity as a signal that the targeted firm and its CEO abide by the stigmatized industry's collective norms, values, and ideologies (Greenwood et al., 2010; Haveman and Rao, 1997; Roulet, 2019), which are normally disapproved by outsiders (Durand & Vergne, 2015) but valued by ingroup members (Asforth et al., 2014). As CEOs are responsible for their firms' actions, the perceived adherence of their firms to the norms of a stigmatized industry can be attributed to their CEOs and hence it can be perceived as a signal of

these CEOs' belonging to the collective identity shared among other executives within the stigmatized industry.

Consequently, we argue that these CEOs are likely to receive support from the tainted elites and be accepted in their inner circle, for example on the board of their firms. The potential stigma transfer deriving from the board appointment of the CEO of the publicized firm would not concern the appointing firm's executives, because in stigmatized industries the appointing firm's stakeholders are less likely to be sensitive to negative publicity. For example, many customers of arms manufacturers – often members of the government of repressive regimes with questionable human records– are unlikely to care about and criticize the inclusion of a CEO from a negatively publicized firm in the board of an arms manufacturer. Another example is that of Charles Champion, the CEO of Airbus, a European multinational aerospace corporation until 2006. In 2006, Mr Champion was fired because of a scandal related to the production of the A380 aircraft. Yet, not only he remained in Airbus with different executive roles until in 2019, but he also he joined AKKA, a technology consulting group in defense industry, as administrator of the board. Furthermore, many arm manufacturers tend to invest broadly in activities such as lobbying to gain the support of different influential actors (e.g., politicians) (McDonnell & Werner, 2016). Thus, their executives are less likely to worry about the reputational repercussions of appointing a CEO from a negatively publicized firm to their board of directors. For example, the CEO of Indra, a Spanish information technology and defense systems firm, Monzon, was associated with several military-related controversies.[5] In 2015, he was replaced, also because of a change of leading party in the state's government, but was "promoted" to honorary president in Indra, despite the negative mediatic coverage.[6]

Overall, by joining the board of these other firms, CEOs can develop new ties and relationships with corporate elites (Kor & Sundaramurthy, 2009) and benefit from their potential

referrals for future career advancements (Westphal & Stern, 2007). For example, after the scandal about Blackwater described above, although its founder Erik Prince was targeted by journalists and singled out in the eyes of the public to push other firms to distance from him, he was still warmly welcomed to be employed by African and Middle Eastern defense companies.[7] We propose that within stigmatized contexts CEOs are likely to join the board of other firms, when the negative publicity –which is specific to the stigmatized industry– about these CEOs' firms increases.

H1: The higher the negative publicity around a specific firm in a stigmatized industry, the higher the likelihood that its CEO joins the board of other firms within that industry.

The moderating effect of CEOs' reputational capital

We propose that two conditions can increase the likelihood that the CEO of a firm in a stigmatized industry that has received negative publicity joins the board of other firms within the same industry: when the CEO has low levels of reputational capital or low levels of visibility. We argue that the *negative* publicity around the firms of CEOs with low levels of reputational capital or visibility signals these CEOs' belonging to the collective stigmatized identity of the industry, and hence low levels of reputational capital or visibility magnify the effect of negative publicity on their board-joining within the stigmatized industry.

CEOs' reputational capital refers to the "collective judgment of observers regarding the quality or capabilities of those CEOs in leading their firms" (Graffin & Ward, 2010, p. 331). Reputational capital indicates that an executive possesses valuable capabilities and expertise (Boivie, Graffin, Oliver, & Withers, 2016) and can provide unique information and resources to

the firms (Haunschild & Beckman, 1998; Hillman & Dalziel, 2003; Lester, Hillman, Zardkoohi & Cannella, 2008).

CEOs earn reputational capital over time through persistent positive performance in their roles (Graffin & Ward, 2010; Schepker & Barker III, 2018). Thus, reputational capital is a scarce resource among executives (Hambrick & Cannella, 1993). In a stigmatized industry, executives that receive for example the award of "CEO of the Year" (Wade et al., 2006) are perceived to be aligned with the norms, values and practices of their industry and with the industry's collective identity. The other members of the industry see CEOs with high reputational capital as ingroup members of the stigmatized industry. For these CEOs, *negative* publicity around their firms carries little additional information about their association with the collective identity of the industry.

In contrast, the marginal benefit of increased negative publicity for CEOs with low levels of reputational capital is higher, compared to that of CEOs with high levels of reputational capital. Negative publicity provides information about CEOs whose actions and behaviors within the stigmatized context have not been recognized or awarded before. Negative publicity signals that these CEOs adhere to such industries' values, practices and norms. Given these CEOs' low levels of reputational capital, these characteristics were previously possibly unknown to the ingroup members. Thus, the negative publicity reveals new information about the CEOs and their adherence to the stigmatized industry's identity, and can increase these CEOs' likelihood of receiving board-appointments in other firms. Hence, we propose:

H2a: The positive relationship between the firm's negative publicity and the likelihood of its CEO joining the board of other firms within the stigmatized industry becomes weaker as the CEO's reputational capital increases.

The moderating effect of CEOs' visibility

CEOs' visibility refers to how much attention individuals, groups, or organizations typically receive (Chiu & Sharfman, 2011). As for reputational capital, we argue that the *negative* publicity around the firms of CEOs with low levels of visibility also signals these CEOs' belonging to the collective identity of the stigmatized industry, hence moderating the main effect between negative publicity and CEOs' board-joining within that industry. Specifically, we propose that low levels of CEO visibility magnify the effect of negative publicity on their board-joining within the stigmatized industry.

In general, an individual's visibility invites more scrutiny and attention by audiences (Chiu & Sharfman, 2011), and even more so for CEOs, as they tend to be very prominent figures (Love et al., 2017). While in general negative publicity may harm a person's reputation and career prospects (Westphal & Deephouse, 2011), prior evidence suggests that negative publicity can have positive outcomes for actors with low visibility levels. For example, Berger, Sorensen, & Rasmussen (2010) found that while a negative review in the New York Times hurt the sales of books by well-known authors, it increased sales of books that had authors with lower visibility. Similarly, Kang & Kim (2017) found that the positive effect of CEO media appearances on managerial labor market outcomes was stronger for CEOs of smaller – hence less visible– firms.

When CEOs are highly visible, their abiding by the norms and values of the stigmatized industry is already marked. Hence, the negative publicity around their firms carries little additional information about these executives and would have a negligible additional effect of on the likelihood of their board-joining.

In contrast, the effect of negative publicity can be meaningful for CEOs with low levels of visibility (Kang & Kim, 2017). We argue that the marginal benefit of *negative* publicity for

CEOs with low levels of visibility is higher compared to CEOs with high levels of visibility because of stronger positive awareness-enhancing outcomes. The negative publicity can increase the ingroup members' attention to the targeted firm and its CEO and reveal information about the CEO's association with the collective identity of the industry. Thus, we suggest that in a stigmatized context the board-related benefits of negative publicity will be higher for those CEOs that have low levels of visibility. The negative publicity around a firm provides the opportunity –that would not have emerged otherwise– that CEOs with low levels of visibility become known to the other firms' executives and that as a consequence they can be welcomed to join these firms' boards of directors. This awareness-enhancing mechanism is weaker for CEOs who already have high levels of visibility. Thus, we suggest:

H2b: The positive relationship between the firm's negative publicity and the likelihood of its CEO joining the board of other firms within the stigmatized industry becomes weaker as the CEO's visibility increases.

METHODOLOGY

Empirical setting and data

To investigate empirically the relationship between negative publicity and CEOs' board-joining within the stigmatized industry and its boundary conditions we examine the arms industry. Firms in the arms industry are frequently under attack by different stakeholders, who question the firms' allegedly controversial values and behaviors specific to the nature of their business, and suffer from a perceived deeply discrediting core attribute, i.e. killing people (Vergne, 2012). For example, during our observation period, two major wars in Afghanistan and Iraq and many smaller conflicts such as the war in Gaza put many arms manufacturers under public scrutiny. Overall, this frequency of criticisms of firms in this industry enables us to examine whether their

CEOs can join other firms' boards. Compared to other morally deviant industries (e.g., tobacco (Grougiou et al., 2016) or pornography (Jensen & Sandstrom, 2015)), the number of publicly traded firms in the arms industry is substantially higher, providing a better and more extensive access to corporate information.

We analyze data about firms in the global arms industry and their CEOs from 1998 to 2017––a sufficiently long period to observe negative publicity about these firms' activities and variations within CEOs' joining other firms' boards within the defense sector. Given that there is no unique SIC code for the arms industry and in fact many firms in this industry report SIC codes, which are even unrelated to the arms production, we hand-collected the firms in our sample from the two major sources that rank firms by their arms sales: the *Stockholm International Peace Research Institute (SIPRI)* and *Defense News* (Durand & Vergne, 2015). Our sample includes all the firms that were listed at least once in these rankings during our observation period. This data collection process yielded 270 firms.

Then, we collected CEO-level data, including demographic data, work experience, and membership in associations and other firms' boards. We used Bloomberg's Executive Profile & Biographies (BEPB) and Boardex, which is the largest available dataset with information on boards of directors (Koch-Bayram & Wernicke, 2018).

Our first source for firm-level financial data was Compustat. We hand-collected other quantitative firm-level data (e.g., stakeholders' attacks and media coverage) from several sources: SIPRI, Defense News Top 100 rankings, Factiva, corporate annual reports, company websites, and defense publications. When we merged our CEO-level and firm-level data, we obtained a final sample with data about 408 CEOs in 205 firms.[8] Figures 1 and 2 offer additional details about the geographical and yearly distribution of negative publicity of the firms in our final sample.

————————-Insert Figures 1 and 2 about here————————-

Dependent variable

CEOs joining the board of other firms in the arms industry. Our dependent variable measures the CEOs' joining of other firms' boards within the arms industry and takes the value of 1, when a CEO joins the board of any other firm (private or public) in a given year – and 0 otherwise. We collected this data from Boardex and complemented it with data from BEPB. With the exception of five CEOs, who in a given year joined the board of two firms in the arms industry, all the other 91 CEOs joined the board of one firm in a given year (in total 101 instances of CEOs' board-joining). Hence, we kept the *CEOs' board-joining* variable as binary.

Independent variables

Negative publicity. Building on previous studies on negative coverage of firms' behavior in stigmatized industries (Durand & Vergne, 2015; Piazza & Perretti, 2015), we conceptualize negative publicity based on media coverage of controversial and problematic firms' behaviors, actions and values specifically in their business units within the arms industry. We measured negative publicity for each year by calculating how many times media outlets published articles containing instances of stakeholders' attacks on firms. Following previous research (Piazza & Perretti, 2015; Vergne, 2012), we used the Factiva database to search the *Headline* or *Lead Paragraph* of any article that contains a) the name of at least one firm in our sample; b) at least one disapproval-specific keyword such as critic*, attack*, under pressure*, condemn*; and c) at least one arms-specific keyword, such as military, weapon*, defense to identify the coverage of any instance of these attacks. To make sure that the media articles covered the attacks targeting a firm's core business (i.e., the arms-related activities), we checked whether the content of each article matches at least one of the six negative stereotypes that manifest the morally deviant nature of the arms industry (four identified by Durand and Vergne (2015) and two newly

identified in our sample).[9] Through this process, we identified 8,632 attacks.[10] We then asked an independent coder to re-code a randomly selected 10 percent of all the retrieved articles. The inter-coder agreement level was 93 percent, which is an acceptable level (Hayes and Krippendorff, 2007). We logged this variable, because it was skewed to the right. In sum, *Negative publicity* is a continuous variable and is the logarithm of the total number of negative media coverage mentions that a firm receives about its defense and military activities in one year.

Moderating variables

To test the boundary conditions of this main effect, we argue that the CEO's joining of another firm's board in the stigmatized industry is more likely when the negative publicity reveals information otherwise not available about the CEO. Thus, we focus on two characteristics of the CEO that may magnify the importance of the information revealed through the negative publicity: the CEO's reputational capital (for H2a) and the CEO's visibility within the stigmatized context (for H2b).

CEOs' reputational capital. Hypothesis 2a proposes that CEOs' reputational capital weakens the relationship between the negative publicity and the likelihood of CEOs' board-joining. We measured reputational capital as the cumulative count of CEOs' awards in certification contests (Wade, Porac, Pollock, & Graffin, 2006). For CEOs, certifications are allegedly one of the few independent sources of information regarding their capabilities (Wade et al., 2006). We used Boardex and Factiva (with relevant keywords such as award*) to identify for each CEO in our sample awards such as CEO of the year, Best CEOs/executives, distinguished leadership awards, and leader of the year. The *CEOs' reputational capital* is a cumulative count variable of the number of awards a CEO has won in different certification contests in previous years.

CEOs' visibility. Hypothesis 2b proposes that CEOs' visibility weakens the relationship between the negative publicity and the likelihood of CEOs joining the board of defense firms. We measured CEOs' visibility by counting the number of times a CEO's name appears in the *Headline* or the *Lead Paragraph* of any article in the Factiva database.[11] However, for large firms the visibility of CEOs is confounded with the firms' visibility (Kang & Kim, 2017). To address this issue, instead of using the crude number of CEOs' appearances in the media as our visibility measure, we first regressed this number on the factors that determine firms' visibility i.e., firm's revenue, media coverage, and size, and then we used the standardized residuals as our final measure of CEOs' visibility.

Control variables

To control for other factors that may influence our dependent variable, we included several variables at the level of the firm, CEO, and peer firms. At the firm level, we accounted for the possibility that smaller, under-performing, and less powerful firms might depend more on their external environment, motivating their CEOs to join other boards to obtain resources for the firm (Howard, Withers & Tihanyi, 2017). Consequently, we added measures of *Relative firm performance* (logarithm of firm returns on assets divided by the industry returns on assets), *Relative firm size* (logarithm of firm assets divided by the industry average size), and the logarithm of *Market share* (Hannan and Liang, 1993). As firms' media coverage may affect the CEOs' sensitivity to negative publicity (Bednar, 2012), we controlled for *Firms' media visibility* by calculating the log plus 1 number of articles that contained the name of the firm in the *Headline* or *Lead Paragraph* of Factiva.

Given that a firm's reputation and status can confound the triggers and consequences of media coverage (Love et al., 2017), we added two control variables. We controlled for the *Firms' reputation.* Following prior studies' measures of firms' reputation based on their ranks in

Fortune lists (e.g., Philippe & Durand, 2011), we measured reputation by the relative position of our firms in the SIPRI's ranking of the top 100 arms manufacturers. Because this ranking is based on an important firm-level economic outcome (i.e., yearly defense sales), it allows to measure firms' reputation which the prior literature mainly defined by firms' economic performance (e.g., Ertug & Castellucci, 2013). As firm reputation is usually stable (Hall, 1992), and in our sample we rarely see changes in the SIPRI ranking of more than 20 positions for any given firm, we grouped our firms into four quartiles in these rankings. The highest reputation is for firms with positions from 1 to 25 in the SIPRI's ranking. We assigned to these firms' reputation the value of 4. We gave the values of 3, 2, and 1 respectively to the reputation variable for firms with ranks from 26 to 50, 51 to75, and 76 to 100. In sum, *Firms' reputation* is a discrete variable that ranges from 1 to 4.

Next, we controlled for *Firms' defense and commercial status*. Following previous literature that measured firms' status based on their media coverage (Castellucci & Ertug, 2010; Shen, Tang, & Chen, 2014), we measured *Firms' defense and commercial status* respectively as the residual of media coverage about the defense and commercial activities of each firm. Specifically, we regressed each firm's media coverage on firm size, performance, reputation, stakeholders' attacks on defense business, and stakeholders' attacks on commercial business, which can all affect the firm's media coverage, and calculated the residuals. We then standardized the residuals to construct the final measure of firms' defense and commercial status.

We accounted for the possibility that firms may dilute their association with the arms industry by diversifying into commercial markets (Vergne, 2012). We calculated such *Association dilution* by dividing firm's commercial sales by the total sales of that firm.

To make sure that our measure of negative publicity only captures attacks on the activities of the firm in the arms industry, we needed to control for other types of negative events (Durand

& Vergne, 2015). Thus, we included a control variable, i.e. media attacks on issues that are not specific to firms' arms business. To calculate this *Non-arms attacks* variable, , we used Factiva and searched for articles that covered any criticism—unrelated to firms' activities in the arms industry—including attacks from activists (e.g., environmental issues), employees (e.g., gender discrimination), suppliers (e.g., contracts' terms), governments and other customers (e.g., contracts' delays), regulatory agencies (e.g., accounting irregularities), and shareholders (e.g., dividends' distribution). We then counted the number of articles to calculate the total amount of firms' non-arms attacks.

At the CEO level, we wanted to account for those individual characteristics that could shape the probability that a CEO would join other firms' boards (Johnson, Schnatterly, Bolton, & Tuggle, 2011; Shropshire, 2010). Hence, we included controls for the total *Tenure of a CEO* in a firm (calculated as the log of 1 plus the number of years that a person worked as CEO for a firm), for the *CEO prior working experience in the arms industry* and *CEO prior working experience in other industries* (calculated as the log of 1 plus the number of years in which a CEO worked respectively in the arms industry or in other industries prior to joining the focal firm). We also controlled for the *CEO age* by taking the logarithm of the age of each CEO.

Beyond board memberships, other activities outside the firm can give CEOs access to networks of corporate elites (Useem & Karabel, 1986). Thus, we also controlled for the number of *CEOs' memberships in arms associations and in associations outside the arms industry* (arms associations such as *National Defense Industrial Association (NDIA)* or *Armed Forces Communications and Electronics Association (AFCEA),* and associations outside the arms industry such as *European Automobile Manufacturer's Association (ACEA)* or *World Steel Association*). We controlled for the current number of board seats that a CEO holds (*CEO outside directorships*), because they might affect the CEOs' likelihood of joining an extra board

(Westphal & Stern, 2007). Finally, we controlled for CEOs' affiliations with elite policy-making groups, because through these affiliations CEOs can access a network of corporate elites with valuable contacts and information that can influence their joining of other firms' boards (Wurthmann, 2014).

As the negative publicity of other firms in the arms industry might influence the likelihood that the CEO joins the board of those firms, we controlled for the *Negative publicity of the focal firm's peers*. Following prior research (Durand & Vergne, 2015), we identified as peer a firm that overlaps with the focal firm at least in one of 12 subcategories of the arms industry (i.e., categorized through SIPRI, defense journals, and firms' annual reports).[12] Then, we calculated the negative publicity of these peer firms by summing the media coverage of the attacks that these firms received.

Finally, we added *firm fixed effects* to control for the unobserved time-invariant characteristics of firms that may influence their CEOs' joining of other firms' boards. We also included *year fixed effects* to control for any unobserved heterogeneity between different years. We lagged all independent and control variables by one year relative to the dependent variable.

Estimation model

Because our dependent variable is binary, we tested our hypotheses with a logistic regression model (conditional logit). Beyond firm fixed effects to control for unobservable characteristics of firms, we also clustered standard errors at the firm level, in order to account for a firm's different CEOs repeatedly joining other boards over time.

RESULTS

Table 1 summarizes the descriptive statistics and the correlation matrix of our variables. The correlations between the control and independent variables are low or moderate, with VIF of less

than 10 for each of the variables in the model and equal to 4.88 for the full model, making multicollinearity a lesser concern (Kennedy, 1993).

————Insert Table 1 about here————

In Table 2, we present the results of our analyses. Model 1 includes all the control variables. As expected, the CEOs' number of current outside directorships negatively and significantly affects the likelihood of the CEOs' joining other boards. CEOs in well-performing firms and larger firms are significantly more likely to find seats in other defense firms.

Next, we tested H1, proposing that negative publicity increases the likelihood of the firms' CEOs joining the board of other firms in the arms industry. Consistent with our prediction, the coefficient for the negative publicity is positive and significant (b = 0.766, p = 0.018 and b=1.332, p = 0.000, respectively in Model 2 and in the full Model 5 of Table 2). By calculating the odds ratio (Model 2 of Table 2), we observe that a one standard deviation increase in negative publicity (i.e., approximately five more instances of stakeholders' attacks on firms' activities in the arms industry) raises the likelihood of CEOs' board-joining by about 215 percent ($e^{0.765*1.492}$ =3.15).

We report the results for hypotheses H2a and H2b respectively in Models 3 and 4, and then in Model 5 (Full Model) of Table 2. Here, the interaction effect of *CEO reputational capital* with negative publicity is negative and significant in both Model 3 (b = -0.804, p = 0.002) and Model 5 (b = -0.794, p = 0.002), as predicted in H2a. The coefficients for the interaction term between *CEO visibility* and negative publicity are also statistically significant in both Model 4 (b = -0.525, p = 0.000) and Model 5 (b = -0.528, p = 0.000), as predicted in H2b.

————Insert Table 2 about here————

In regressions with limited dependent variables (e.g., logistic regression), the significance of the interaction term coefficient is not informative about the significance of the interaction effects

(Huang and Shields, 2000). Calculating and graphically depicting the marginal effects of the independent variable at different levels of the moderating variable provides a more nuanced understanding of the interaction effect (Hoetker, 2007; Wiersema & Bowen, 2009). Table 3 displays the marginal effect of negative publicity on the likelihood of board-joining within the stigmatized industry (dy/dx) at different values of the *CEO reputational capital* and *CEO visibility*. Consistent with H2a, the positive relationship between negative publicity and the likelihood of CEOs' board-joining is two times stronger when a CEO has no awards, i.e. our measure of reputational capital, than when a CEO has at least one award (b = 1.55 versus b = 0.77). As the number of CEO awards increases, this relationship becomes weaker and even negative (although insignificant) at high levels of CEO reputational capital (i.e., when CEOs have won more than two awards). Figure 3 shows the graphical depiction of this interaction. The positive relationship between negative publicity and the likelihood of CEO's board-joining is nearly two times (3.5 times) weaker at the mean value of CEO visibility (b = 1.14) (at one standard deviation above mean) than at two standard deviations below the mean (b = 2.19), lending support to H2b. Figure 4 graphically reports the marginal effects for this interaction effect.[13]

————Insert Table 3 about here————

————Insert Figures 3 and 4 about here————

Robustness checks

It is possible that our results are contingent upon the specificity of our models or subject to alternative explanations. Thus, we run a series of robustness tests addressing these concerns (see Tables 4 and 5).

Firms' positive publicity. An alternative explanation for the positive relationship between negative publicity and CEOs' board-joining within the stigmatized industry may be that

"every publicity is good publicity". Accordingly, CEOs would receive more board appointments within the arms industry not because of the negative publicity but because of the general publicity regardless of its valence.

To test this alternative explanation, we collected data on the positive news coverage of the firms in our sample. If our idea of collective identity as the driver of CEOs' board joining is correct, for negative publicity we should not observe the same effect on CEOs' board joining as for positive publicity. To construct the *Positive publicity* variable, we first searched Factiva for all news articles containing the name of the firms in our sample in its headline or lead paragraph. Then through Factiva Expert Search, we selected the positive news option to filter out non-positive news. Our final measure of positive publicity is the logarithm of 1 plus the number of positive news for each firm in a given year. The mean and variance for this variable are 2.24 and 1.39.

Model 1 of Table 4 reports the results of this analysis. Consistent with our mechanism of group identity, the coefficient of the positive publicity is statistically insignificant (b = 0.204, p = 0.522) while the coefficient for the negative publicity remains positive and significant (b = 0.761, p = 0.017). Because positive publicity and firms' media coverage may capture the same concept and the correlation between the two variables is 0.50, we repeat the same analysis with the exclusion of firms' media visibility from the model. Results remain similar to the previous specification (b = 0.004, p =0.986 for the positive publicity and b = 0.791, p =0.013 for the negative publicity), ruling out the possibility of an alternative explanation of "no publicity is bad publicity" in our context.

————Insert Table 4 about here————

Nature of stakeholders' attacks. To further probe our explanation that the negative publicity sends a signal of belonging to or abiding by the moral character of the industry, this

predicted effect on CEOs' board joining within the stigmatized industry should be stronger for moral-based attacks than for other types of attacks. Building on prior studies on the arms industry that identified two main types of attacks by stakeholders – those that target firms' immoral activities (e.g., killing civilians, and promoting war and instability), and those that target firms' illegal activities (e.g., bribing, overcharging the governments in contracts, and selling military secrets to foreign countries) (Durand & Vergne, 2015; Vergne, 2012) – we sought to identify separately attacks for firms' immoral or illegal actions. We used the name of the firm and keywords specific to immoral behavior and illegal behavior to extract all the articles that contain any reference to such behaviors in the headline or lead paragraph of Factiva news (See Table A-4 for the keywords used in this step). We then used the 1 plus logarithm of the number of articles covering each type of stakeholders' attacks as the measure of *Moral-based attacks* and *Legal-based attacks.* The mean and variance for *Moral-based attacks* are 0.48 and 0.21, and for *Legal-based attacks* are 0.54 and 0.28.

As shown in Model 2 of Table 4, and consistent with our collective identity mechanism, the coefficient for moral-based attacks is positive and significant (b =1.59, $p = 0.014$), while the coefficient of the legal-base attacks is negative and weakly significant (b = -1.15, $p = 0.053$). This result suggests that even within a stigmatized industry, if firms engage in illegal activities such as bribing, their CEOs will be penalized with exclusion by other firms within the same context.

Counting board seats in other firms. It is plausible that our results are biased by some CEOs that joined more than one board of firms in the arms industry in a given year. To account for this possibility, we built an alternative version of our dependent variable as a count variable. Because the mean and the variance of this dependent variable are roughly the same (i.e., respectively 0.096 and 0.10), we favor a Poisson specification over Negative binomial (e.g.,

Ahuja & Katila, 2004) to re-run all the previous analyses (Model 3 of Table 4 and Model 1 of Table 5).

Again, results are very similar to what we found in our main analyses. The coefficient of the negative publicity is positive and significant (b = 0.744, p = 0.006) and the coefficients of its interaction with CEO reputational capital and CEO visibility are negative and significant (respectively b = -0.833, p = 0.000 and b = -0.426, p = 0.001, in Model 5 of Table A-1), supporting our three hypotheses. Calculations and graphical depictions of marginal effects also confirm the moderating effects in the Poisson specification. The marginal effect of negative publicity on the CEO board-joining likelihood decreases by 50 percent, when a CEO has won no awards compared to one award. Similarly, the marginal effect of negative publicity on the likelihood of CEO joining another firm's board decreases by 8 percent, when CEO visibility moves from one standard deviation below mean to the mean value; and it decreases by 30 percent when CEO visibility moves from the mean value to one standard deviation above the mean (see Figures A-1 and A-2 in the Appendix).

————Insert Table 5 about here————

Confounding effects of negative publicity and firm characteristics: Matched sample specification. Finally, it is possible that some characteristics of the firm may explain both the stigma and the CEO's board appointments. To test this idea, we used a matched-sample design. Following prior articles in management journals (e.g., Schilke & Lumineau, 2016; Zhang, Wang, & Zhou, 2020), we estimated the dose-response function through adjustment for the generalized propensity score (PMS). We used the STATA command *gpscore* to estimate the conditional distribution of the treatment (disapproval), given the pre-treatment covariates. We used all control variables and moderators of the study and regressed CEOs board appointments within the stigmatized industry on the treatment variable, i.e. disapproval, after accounting for the obtained

propensity score. As shown in Model 4 of Table 4 and consistent with our previous analyses, the effect of disapproval is positive and significant (b = 0.411, *p*= 0.009), further alleviating the endogeneity concerns in our analyses.

Post-hoc analyses and placebo outcome tests

Board-joining outside the stigmatized industry. We argued that negative publicity can result in board seats for CEOs whose firms have been targeted because other defense firms may perceive the negative publicity within the stigmatized industry as a signal of in-group membership and adherence to the norms of the stigmatized industry. If our theory is correct, we should not observe similar outcomes outside these industries. Hence, when negative publicity increases, we should not see a positive effect on the likelihood of CEOs' joining the board of firms outside the stigmatized industry.

We tested this idea by using as dependent variable a dummy variable that takes the value of 1 if a CEO of a defense firm joins the board of any firm outside the arms industry in a given year, and 0 otherwise. The coefficient of negative publicity is statistically insignificant (b = 0.176, *p* = 0.251, in Model 5 in Table 4). Also, the coefficients for the interaction of negative publicity with CEO reputational capital and CEO visibility are also insignificant (respectively b = 0.069, *p* = 0.397 and b = -0.002, *p* = 0.974, in Model 5 of table A-2), supporting our argument that our predictions are exclusive only to stigmatized contexts. Marginal calculations and graphical depictions of the moderating variables in Model 3 of Table 5 (see also Figures A-3 and A-4 in the Appendix) do not indicate any significant decrease in the marginal effect of negative publicity on the likelihood of CEOs' board-joining outside the stigmatized industry, when CEO reputational capital and CEO visibility increase, further supporting our *within* industry-specific predictions.

Finally, to account simultaneously for CEOs' joining the board of firms inside the arms industry, outside that industry, and not joining any board, we ran a fixed effects multinomial regression, with a nominal dependent variable (0/1/2) for not joining a board, joining firms outside the arms industry, and joining other firms within the arms industry. The results of these additional tests largely support what we found in our main analyses (see Table A-3 in the Appendix).

Testing the sensitivity of firms outside and within the arms industry to negative publicity. We predicted that firms in a stigmatized industry may reward the negative publicity of other firms in the industry. However, firms outside stigmatized industries may be more sensitive to stigma transfer than other firms inside that industry, and thus dismiss from their boards CEOs whose firms become the target of stakeholder attacks. To explore this specific effect, we checked the effect of negative publicity on the likelihood of CEOs' leaving a currently held board position (if a CEO has any) in other firms. We created a new dependent variable, *Board left,* as a dummy variable that takes the value of 1 when the CEO leaves a board position and 0 if she continues to hold that position.

Then, to account for the possibility that in the face of negative publicity the CEO of a firm in a stigmatized industry is more likely to lose a board seat in a firm outside the arms industry, i.e. in a commercial firm of our sample, than in a firm in the defense industry, we created another dummy variable (i.e., *Outside-arms board*) that takes the value of 1 if the current board position is in a firm outside the arms industry and 0 if it is in a firm within the arms industry. We interacted this variable with *Negative publicity* to check whether CEOs are more likely to leave the board of commercial firms versus defense firms. The coefficient of the interaction term between the *Outside-arms board* and *Negative publicity* is positive and weakly significant (b = 2.936, $p = 0.081$, in Model 6 of Table 4). This result suggests that when negative

publicity increases around their focal firms, CEOs are more likely to lose board seats in firms outside the arms industry, compared to firms inside it, in line with our explanation that firms outside stigmatized industries are sensitive to the appointment of CEOs from such industries.

DISCUSSION AND CONCLUSION

This study set out to explore whether and when negative publicity for firms in a stigmatized industry can lead to the appointment of their CEOs to the board of other firms within that industry. Using a novel, hand-collected dataset that covers stakeholders' attacks on firms in the global arms industry and their CEOs between 1998 and 2017, we found that within this stigmatized industry when a firm receives negative publicity, its CEO is more likely to join the boards of other firms. When we explored the boundary conditions of this effect, we found that this negative publicity drives CEOs to join another firm's board more when the publicity reveals information otherwise not available about the CEO. Specifically, CEOs are more likely to join other firms when they have low levels of reputational capital and visibility.

Contributions to upper echelon perspective in the stigma literature

Our study advances knowledge about upper echelons and stigma (Arthaud-Day et al., 2006; Pozner, 2008; Schepker & Barker III, 2018; Semadeni et al., 2008; Withers et al., 2012; Withers et al., 2020), shedding new light specifically on upper echelons' behaviour within stigmatized industries. Our study shows that the negative publicity that firms frequently receive in such industries can have positive consequences for their CEOs. Adding to firm-level factors (e.g., financial benefits) that may contribute to the sustenance of controversial practices and products in stigmatized industries (Durand & Vergne, 2015; Piazza & Perretti, 2015; Reinmoeller & Ansari, 2016; Ruebottom & Toubiana, 2020), our study reveals an individual-level factor (e.g., career advancement) that may explain firms' continued engagement in contentious corporate practices. CEOs may not eschew and may even deliberately pursue

behaviours that invite scrutiny and criticism by external stakeholders, to foster their careers in a stigmatized industry.

Our main finding that negative publicity increases the likelihood of CEOs joining other firms' boards suggests that not all types of stigma need to be negative and carry harmful consequences for executives, such as exclusion, ostracism or discrimination. Prior literature argued that *failure* stigma damages CEOs (e.g., decreasing the likelihood that CEOs can join the board of other firms) (Arthaud-Day et al., 2006; Pozner, 2008; Schepker & Barker III, 2018; Semadeni et al., 2008; Withers et al., 2012; Withers et al., 2020), especially beyond the stigmatized context (Hudson and Okhuysen, 2009; Pozner, 2008; Sutton and Callahan 1987; Warren, 2007). Actors tend to distance themselves from those of a stigmatized industry (Cowen & Marcel, 2011; Goffman, 1963; Pontikes et al., 2010) to avoid the possibility that stigma transfers from those operating in the stigmatized industry (e.g., Ashforth et al., 2007). Thus, for CEOs from a defamed industry the opportunities to advance their careers *outside* that industry would diminish.

In contrast, focusing on a specific and so far, relatively under-analyzed consequence of stigma, i.e. *CEOs' board-joining* within a stigmatized industry, our study reveals the importance of qualifying the types of stigma, and to tease out their differential consequences on CEOs. Our findings indicate that different from failure stigma, *core* stigma may have positive consequences for CEOs. *Core* stigma —stemming from firms' operating in a stigmatized industry— can increase the likelihood that CEOs join the board of other firms, but only *within* the stigmatized industry. Building on the concept of ingroup identification in social identity theory (Hogg 2003; Tajfel & Turner, 1986), we argue that because individuals support members of their group, if they possess certain attributes or behaviours that indicate compliance and conformity with the group's norms (Outten & Schmitt, 2015; Tobin et al., 1989; Tajfel et al., 1979), stigma, in the

form of increased negative publicity, can perversely publicize the CEOs' belonging to the collective identity of executives inside a stigmatized industry. In fact, our findings also suggest that the publicity-driven opportunity to join another firm's board is more likely for CEOs with low levels of reputational capital and visibility, i.e. when the negative publicity reveals information otherwise not available about the CEO.

These findings also highlight the importance of distinguishing between *internal and external actors* (i.e., other firms inside and outside the stigmatized industry) to investigate the *consequences* of stigma for executives and CEOs. This distinction specifically allows us to push the boundary conditions of the literature on stigma by association (Goffman, 1963; Pontikes et al., 2010), and to respond to the calls to examine the cross-level consequences of stigma and especially stigma transfers from actors in a stigmatized industry to upper echelons (Hudson & Okhuysen, 2009; Pozner, 2008; Warren, 2007; Wiesenfeld et al., 2008). Fearing to be associated with this stigma, external actors distance themselves from those working in stigmatized industries (Barlow et al., 2018; Khessina et al., 2020; Kulik et al., 2008; Pontikes et al., 2010). We find support for this distancing explanation in a post-hoc analysis, showing that CEOs whose firms were negatively publicized lost board seats in firms outside the stigmatized industry. Our findings indicate that in contrast insiders may embrace the increased negative publicity around firms within the stigmatized context by appointing these publicized firms' CEOs to their boards, possibly because they perceive the negative publicity as a signal of belonging to the collective stigmatized identity. Our findings hence complement prior research on the positive outcomes of stigma for organizations (Hampel and Tracy, 2017; Helms & Patterson, 2014; Tracey & Phillips, 2016), by showing how and when positive outcomes can emerge for these organizations' members (i.e., CEOs).

Limitations and future research

Our theory and findings about the effect of stigma on CEOs in a stigmatized context open the avenue for new investigations. First of all, although prior literature has treated our two moderators (i.e. CEO visibility and reputational capital) as theoretically distinct (Love et al., 2017; Schepker & Barker III, 2018), it is plausible that these two factors are linked with each other. High levels of reputational capital may make CEOs more visible in the eyes of different audiences and vice versa. Hence, our findings open the avenue for more research to investigate whether CEO visibility can be influenced by the CEO reputational capital, beyond previously explored factors such as CEO social status (Kim, 2020). While the two constructs are not correlated in our database, more research is needed to further explore the potential confounding effects of visibility and reputational capital.

Second, in our robustness tests, we accounted for positive publicity and different types of stakeholders' attacks, to rule out the alternative explanation of "all publicity is a good publicity" in a stigmatized context. From a conceptual standpoint, when the outcomes of positive and negative publicity for CEOs differ, the idea of "all publicity is good publicity" has no application. We argue that in the context of stigmatized industries the outcomes of positive versus negative publicity differ for CEOs' careers. From an ingroup/outgroup perspective, while positive publicity can lead to beneficial outcomes for CEOs both within and outside the stigmatized context (because there is no fear of association to these CEOs by outsiders), negative publicity can lead to positive career outcomes for CEOs only within the stigmatized context (because of the outsiders' fear of stigma spillover and insiders' embracing of the negative publicity). Furthermore, from a purely ingroup perspective, negative publicity can lead to greater positive outcomes for CEOs' careers compared to positive publicity, because it is a strong signal of conformity to the nature of the stigmatized industry. In fact, positive publicity may paradoxically even be perceived by insiders as a signal of deviance from certain industry norms.

For example, in 2000, after the adoption of consumer safety measures in the production of handguns, Smith & Wesson received praise by the United States government and activists, and positive publicity in the liberal media outlets. However, this positive publicity had negative consequences for Smith & Wesson's CEO. He was boycotted by the gun industry lobbying group (NRA), and disapproved by newspapers specialized on firearms and other firms in the firearms industry. Later, he was even forced to step out from his CEO position at Smith & Wesson.[14] As illustrated by this example and substantiated by our post hoc analyses, the idea of "all publicity is good publicity" is a lesser concern in the context of stigmatized industries. However, more work is needed to theoretically and conceptually address this alternative explanation.

Another challenge in our theorization and empirical analysis concerns the role of "firm prominence." CEOs in more prominent firms in the stigmatized industry may be more likely to gain board seats in other firms solely because of the firm's prominence and not the signal of their belonging to the collective industry identity. Although we controlled for several factors that can capture the firm's prominence (e.g., firm's size, reputation, media visibility, and defense status), future research can more accurately isolate the confounding effect of firm prominence.

Beyond the main scope of this study, we also explored whether similar outcomes hold outside the stigmatized industry. We tested this possibility with an analysis of CEOs joining the boards of firms outside the arms industry. We did not find any positive effect of negative publicity on the likelihood of CEOs' joining the board of firms outside the arms industry, — a result that supports our argument that our predictions are exclusive only to stigmatized contexts. These findings set the ground for future research to compare the social network of CEOs before and after the stakeholders' attacks or to compare the social network of CEOs in stigmatized and non-stigmatized industries to understand the similarities and differences. Furthermore, future

research can investigate whether this publicity-driven board-joining within a stigmatized industry can have also performance consequences for the focal firm.

Future studies can also try to shed more light on the new boundary conditions of the CEOs' board-joining within stigmatized industries. The effects of our two moderators i.e., CEO reputational capital and visibility, are susceptible to possible alternative explanations. For example, one could argue that CEOs with high reputational capital do not have the motivation to act as collective identity markers for the hiring firms. Thus, the positive moderating effect for those CEOs with low reputational capital may not driven by other firms' openness to hire them, but may be simply based on the rejection of board-joining offers by CEOs with high reputational capital. Unfortunately, our empirical setting did not allow us to test this explanation, leaving it as an avenue for future studies.

We expect our findings to be generalizable to other stigmatized industries (e.g., gambling), because our underlying mechanism for CEO board-joining (i.e., publicity as a signal of belonging to the collective stigmatized identity) exists in such industries and will likely become even more important, when the stigmatized identity has not been diluted due to the legalization of that industry (e.g., Marijuana markets) (Lashley & Pollock, 2020) or due to the diversification of firms into non-stigmatized markets (e.g., tobacco firms' diversification into food industry) (Hudson, 2008). In fact, to the extent that the stakeholders of firms in stigmatized industries (e.g., customers) are not sensitive to the reputational consequences of negative publicity or to the extent that firms have isolated themselves against these negative reputational consequences (e.g., through lobbying and gaining the support of political actors), these firms are receptive to the appointment of the CEO of negatively publicized firms to their boards.

Implications for managers and social activists

Beyond its theoretical contributions, this study renders important practical implications, for different audiences. Specifically, we reveal that within the stigmatized industries, organizational negative publicity can be rewarding for their CEOs – a consideration that may suggest that CEOs may be inclined to engage their firms in controversial practices and behaviours and even purposefully cause negative publicity. This perverse consequence of stigma may explain the persistence and diffusion of corrupt practices especially in stigmatized industries. Past research showed that firms in stigmatized industries try to reduce the negative publicity around them to avoid financial and reputational damages (Durand & Vergne, 2015; Vergne, 2012). Hence, aware of the potentially harmful consequences of negative publicity, firms can set up governance mechanisms to control CEOs' potential opportunistic behaviour to increase negative publicity. For example, board members can tie CEOs' compensation to the level of negative publicity that firms receive or can limit the number of outside directorships their CEO can have to reduce the CEOs' motivation to intentionally increase negative publicity.

Past research on social movement also indicates that the success of activists' campaigns increases with the level of negative publicity created around targeted firms (King, 2008). However, our study suggests that in the context of stigmatized industries this negative publicity can be beneficial for firms' CEOs and hence motivate them to feed this publicity. Thus, in light of our findings, social activists need to reconsider their boycotting and targeting strategies, which may unintentionally foster the expansion of the networks of such "tainted" CEOs. Activists should also consider targeting those firms that intend to appoint the focal firm's CEO to their board and increasing the costs of such appointments for those firms. Alternatively, activists can co-opt political support to encourage the passage of laws that constrain the number of outside directorships that CEOs can have in stigmatized industries.

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FOOTNOTES

[1]https://responsiblestatecraft.org/2021/05/06/activist-confronts-defense-industry-ceo-for-companys-role-in-war-crimes/, accessed in June 2021.

[2]https://nationalpost.com/news/canada/stigma-worst-barrier-for-sex-workers-leaving-the-industry-study-finds; https://psmag.com/economics/getting-out-of-sex-work, accessed in June 2021.

[3]https://www.thedailybeast.com/he-made-the-gun-that-slaughtered-parklands-kids; www.hrw.org/news/2007/12/14/blackwater-baghdad-it-was-horror-movie;www.forbes.com/return-of-erik-prince/#10f393d550aa;www.dailymail.co.uk/news/article-6992829/Erik-Prince-tried-teach-Project-Veritas-undercover-activists-spy-skills.html, accessed in June 2021.

[4] At the same time, unlike other organizational members who work in firms' lower echelons, the general visibility and prominence of CEOs restrict the CEOs' use of traditional ways to distance themselves from stigma or to manage the negative perception of outsiders, such as stigma concealment, stigma dilution, or separation from stigma. These traditional ways include positive impression management (IM) techniques (e.g., emphasizing the positive aspect of the firms' activities) (Ashforth et al., 2007), concealing or diluting the association with stigma (Hudson & Okhuysen, 2009; Jones & King, 2014; Reinmoeller & Ansari, 2016; Stenger & Roulet, 2018; Vergne, 2012), separating oneself from the stigmatized role or clients of the stigmatized job (Ashforth & Kreiner, 1999), or leaving the business (Durand & Vergne, 2015; Piazza & Perretti, 2015). For example, it would be highly unbelievable for the public if Mrs. Hewson, the CEO of Lockheed Martin, announced that she is not responsible for the production of lethal weapons in Lockheed's factories. Furthermore, CEOs' use of IM techniques may be counterproductive as it can further publicize the association with their firms (Durand & Vergne, 2015) and strengthen the possibility of stigma transfer in the eyes of outsiders. Leaving the stigmatized industry is also another unattractive option for CEOs, because stigma is a sticky concept (Goffman, 1963; Shantz, Fischer, Liu, & Levesque, 2019), lasting even when the CEO leaves the industry.

[5] https://www.indracompany.com/en/multimedia; https://www.lavanguardia.com/economia/20151123/30348787424/expresidente-indra-javier-monzon-cristiano-ronaldo-avion.html

[6] https://elpais.com/economia/2015/01/29/actualidad/1422519751_411273.html; https://www.elespanol.com/invertia/empresas/20171010/253225061_0.html; https://www.indracompany.com/sites/default/files/hecho_relevante_cambios_en_el_consejo_de_administracion.pdf.

[7] https://global-factiva-com.ezp.essec.fr/redir/default.aspx?P=sa&an=AGI0000020110120e71k00bf5&cat=a&ep=ASE

[8] Because we used a firm fixed-effects specification, our observations included 73 firms and 101 CEOs.

[9] From Durand & Vergne (2015): (1) the arms industry relies on black market transactions, selling arms to repressive regimes and leaking secret military information to foreign countries, (2) the arms industry violates civil liberties and kills civilians, (3) the arms industry endangers world peace, promotes war and profit from global instability, (4) the arms industry exerts illegitimate influence on governments through bribing, controversial political ties and overcharging the contracts, and from our own analysis: (5) the arms industry is unethical for investment (The emergence of the fifth category in our data is possibly because of social movement campaigns about de-investing from arms mainly after 2007 (Durand & Vergne sample was from 1997 to 2007)), and (6) the arms industry and defense contractors are in general corrupt, immoral, and nasty (We could not match attacks such as "Lockheed Martin is Evil" i.e., generic disapproval of a defense company to any of the four stereotypes identified in Durand & Vergne's work and hence we grouped them into a new category i.e., generic attacks).

[10] The maximum distance between the firm's name and disapproval and military-specific keywords was 12 words to make sure the leading paragraph is actually capturing a disapproval conveyed towards a defense firm.

[11] To extract such instances, we searched in Factiva the name of each firm matched with the surname of its CEO (maximum distance of 10 words between the two), at any given year.

[12] (1) electronic warfare and defense electronics, (2) artillery, missiles, cluster munitions, and nuclear weapons, (3) military aircraft and helicopters, (4) military aircraft engines, parts, repair and overhaul, (5) military ships and submarines, (6) military space, (7) military ground vehicles, (8) combat training, personal protection service and private military contractors (PMCs), (9) small arms and ammunition, (10) logistics, engineering support and military facilities' management, (11) OEM and industrial metal products for military applications, and (12) military consulting, IT solutions and cyber defense services.

[13] Because a firm fixed effect specification may lead to loss of data for those firms that do not experience any changes in the board appointments of their CEOs, we also ran a *survival analysis (Cox proportional hazards model)* (Cox & Oakes, 2018). In our sample, we recorded the failure incidence as 1 when the CEO of a firm joined the board of another firm within the stigmatized industry (a total of 73 instances). Our sample is left-truncated because several CEOs were already in position at the beginning of our observation period and is right-censored because some CEOs left their firm after our observation period. As some of our control variables (e.g., CEO tenure)

correlated with the time variable in the survival analysis, and hence led to model non-convergence, we could not include them in our analysis. Similar to our logistic regression results, we found a positive and significant effect of negative publicity on the failure (i.e., CEOs board joining within the stigmatized context) (b = 1.434, p = 0.041). The results for both moderators are qualitatively the same (i.e., both are negative although with a loss of significance (respectively for the two moderators, b = -0.444, p = 0.074 and b = -1.684, p = 0.118). Overall, these results are consistent with those of the logistic regression.

[14] https://www.theguardian.com/business/2000/aug/05/8;https://www.businessinsider.com/smith-and-wesson-took-the-lead-on-safety-2012-12?IR=T accessed in December 2021.

TABLES

Table 1 – Descriptive Statistics and Correlations Matrix

Variables	Mean	S.D.	Min	Max	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(1) CEO arms board-joining	.096	.32	0	2	1.00																						
(2) CEO outside-arms board-joining	.082	.30	0	3	-0.01	1.00																					
(3) Negative publicity	1.37	1.59	0	5.77	0.03	0.03	1.00																				
(4) Firm relative performance	.11	.08	-.23	.32	0.03	0.02	0.00	1.00																			
(5) Firm relative size	6.82	2.31	1.81	12.37	0.02	0.10	0.31	0.13	1.00																		
(6) Non-arms attacks	.51	1.82	0	31.8	-0.02	0.00	0.31	-0.01	0.35	1.00																	
(7) Firm reputation	1.64	1.03	1	4	0.01	0.07	0.44	0.03	0.62	0.31	1.00																
(8) Firm media coverage	5.48	2.06	0	12.01	0.02	0.06	0.34	0.02	0.57	0.33	0.45	1.00															
(9) Firm defense status	0	1	-5.34	4.22	0.03	0.02	0.35	0.03	0.02	0.02	0.42	0.16	1.00														
(10) Firm commercial status	0	1	-5.34	3.35	-0.01	0.01	0.06	-0.08	0.01	0.04	0.05	0.20	0.04	1.00													
(11) Firm market share	-7.32	2.39	-20.7	-.08	0.01	0.08	0.29	0.18	0.93	0.35	0.58	0.57	0.02	0.03	1.00												
(12) Firm association dilution	.61	.39	0	1	-0.04	-0.03	-0.24	-0.13	-0.20	-0.01	-0.36	-0.14	-0.71	0.38	-0.19	1.00											
(13) CEO age	4.11	.17	3.37	4.56	0.00	0.05	-0.02	-0.01	0.13	0.04	0.16	0.02	0.07	-0.10	0.10	-0.15	1.00										
(14) CEO tenure	1.69	.87	0	4.11	-0.03	-0.02	-0.10	0.06	-0.08	-0.07	-0.08	-0.13	-0.04	-0.02	-0.06	0.02	0.26	1.00									
(15) CEO prior exp in arms	1.23	1.35	0	3.74	0.06	-0.04	0.09	0.02	0.09	0.03	0.21	0.14	0.21	-0.06	0.09	-0.24	0.09	-0.21	1.00								
(16) CEO prior exp outside arms	2.02	1.33	0	4.34	0.03	0.07	0.09	-0.04	0.18	0.10	0.13	0.18	0.00	0.04	0.18	-0.01	0.05	-0.11	0.42	1.00							
(17) CEO outside directorships	.63	1.02	0	8	0.16	0.32	0.04	-0.01	0.22	0.09	0.10	0.15	0.00	0.03	0.17	-0.01	0.17	0.06	0.07	0.35	1.00						
(18) CEO associations outside arms	.06	.28	0	4	0.01	-0.00	-0.01	0.01	0.09	-0.01	-0.02	0.09	-0.08	0.03	0.10	0.03	-0.02	0.08	-0.04	0.07	0.08	1.00					
(19) CEO policy-making associations	.17	.54	0	5	-0.03	0.03	0.07	0.00	0.24	0.08	0.17	0.18	0.06	0.04	0.26	-0.05	-0.03	0.10	-0.05	0.04	0.06	0.11	1.00				
(20) CEO arms associations	.17	.48	0	4	0.00	-0.00	0.17	0.04	0.20	0.18	0.25	0.14	0.26	-0.15	0.20	-0.27	0.06	0.09	0.13	0.03	0.04	0.00	0.21	1.00			
(21) CEO reputational capital	.32	.91	0	4	-0.02	0.03	0.20	0.04	0.27	0.26	0.21	0.26	0.12	0.12	0.28	-0.06	0.11	0.18	-0.07	-0.02	0.09	0.03	0.20	0.16	1.00		
(22) CEO visibility	0	1	-4.12	4.23	0.07	0.01	0.15	-0.01	-0.01	0.06	0.07	-0.01	0.20	0.27	-0.01	-0.04	-0.01	0.02	0.06	0.01	0.03	0.02	0.02	-0.02	0.08	1.00	
(23) Peers' negative publicity	77.76	60.56	0	377	0.00	-0.01	0.01	-0.04	-0.01	-0.00	0.05	0.04	0.12	0.03	0.07	-0.10	0.03	-0.00	0.11	0.08	-0.01	0.03	-0.01	0.06	0.02	-0.03	1.00

Table 2 – Conditional Fixed-effects Logistic Regression: The Effect of Negative Publicity on the Likelihood of CEOs' Board-joining within the Stigmatized Industry

	(1) Controls	(2) Negative publicity (H1)	(3) CEO reputational capital as moderator (H2a)	(4) CEO visibility as moderator (H2b)	(5) Full model
Firm relative performance	13.931***	15.978***	15.716***	17.906**	17.816***
	(4.199)	(4.796)	(4.591)	(5.602)	(5.349)
Firm relative size	2.771***	3.012***	3.115***	3.453***	3.591***
	(0.751)	(0.776)	(0.806)	(0.777)	(0.793)
Non-arms attacks	-0.189	-0.184	-0.176	0.011	0.033
	(0.281)	(0.249)	(0.232)	(0.274)	(0.251)
Firm reputation	-1.455	-1.449	-1.415	-2.141*	-2.148*
	(1.006)	(0.965)	(0.881)	(0.886)	(0.841)
Firm media visibility	-0.488*	-0.473*	-0.438*	-0.601**	-0.562*
	(0.201)	(0.207)	(0.213)	(0.215)	(0.223)
Firm defense status	0.245	0.254	0.226	0.264	0.233
	(0.583)	(0.467)	(0.437)	(0.435)	(0.431)
Firm commercial status	-0.167	-0.102	-0.041	-0.124	-0.062
	(0.370)	(0.353)	(0.375)	(0.354)	(0.389)
Market share	-2.506***	-2.768***	-2.912***	-2.921***	-3.063***
	(0.620)	(0.655)	(0.674)	(0.671)	(0.682)
Association dilution	-0.928	-0.969	-1.027	-1.239	-1.297
	(1.465)	(1.272)	(1.300)	(1.260)	(1.326)
CEO age	4.514	4.263	4.320	4.954	4.984
	(3.561)	(3.489)	(3.512)	(3.646)	(3.671)
CEO tenure	-0.397	-0.469	-0.476	-0.449	-0.461
	(0.448)	(0.457)	(0.481)	(0.482)	(0.509)
CEO prior experience in arms	-0.728	-0.680	-0.714	-0.951	-0.969
	(0.602)	(0.649)	(0.655)	(0.712)	(0.696)
CEO prior experience outside arms	1.224*	1.269*	1.325*	1.530**	1.567**
	(0.486)	(0.520)	(0.523)	(0.566)	(0.549)
CEO outside directorships	-1.671**	-1.664**	-1.767**	-1.839***	-1.924***
	(0.550)	(0.544)	(0.561)	(0.550)	(0.557)
CEO associations outside arms	-0.637	-0.855	-0.958	-0.741	-0.847
	(0.880)	(0.855)	(0.857)	(0.799)	(0.811)
CEO policy-making associations	-0.217	-0.384	-0.284	-0.329	-0.230
	(0.725)	(0.721)	(0.697)	(0.708)	(0.727)
CEO arms associations	0.545	0.554	0.511	0.247	0.179
	(0.403)	(0.356)	(0.348)	(0.342)	(0.340)

CEO reputational capital	0.143	0.168	0.913*	0.142	0.837*
	(0.277)	(0.279)	(0.379)	(0.305)	(0.400)
CEO visibility	0.058	-0.056	-0.121	0.778	0.730
	(0.495)	(0.441)	(0.428)	(0.494)	(0.464)
Peers' negative publicity	0.009	0.010	0.010	0.012*	0.013*
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Negative publicity		**0.766***	**1.044****	**1.055*****	**1.332*****
		(0.324)	**(0.353)**	**(0.290)**	**(0.299)**
Negative publicity × CEO reputational capital			**-0.804****		**-0.794****
			(0.255)		**(0.251)**
Negative publicity × CEO visibility				**-0.525*****	**-0.528*****
				(0.140)	**(0.142)**
Observations	718	718	718	718	718
Number of firms	73	73	73	73	73
Number of CEOs	101	101	101	101	101
Year fixed effects	YES	YES	YES	YES	YES
Firm fixed effects	YES	YES	YES	YES	YES
Robust standard errors at the firm level	YES	YES	YES	YES	YES
Pseudo R^2	0.252	0.274	0.298	0.310	0.332

Standard errors in parentheses, $^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3 – Marginal Effects of Negative Publicity on CEOs' Board-joining within the Stigmatized Industry at Different Levels of CEO Reputational Capital and CEO Visibility

Moderating variable	Level of moderator	Marginal effect of …	Marginal effects	Standard errors
CEO reputational capital	4 awards	Negative publicity	-1.54	0.95
	3 awards		-0.76	0.70
	2 awards		0.005	0.46
	1 award		0.77*	0.30
	0 awards		1.55***	0.34
CEO visibility	2 SD above mean	Negative publicity	0.08	0.27
	1 SD above mean		0.61**	0.23
	Mean		1.14***	0.28
	1 SD below mean		1.66***	0.37
	2 SD below mean		2.19***	0.49

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4 –Robustness Tests and Post-hoc Analyses

	(1) Positive publicity	(2) Nature of attacks	(3) Poisson regression	(4) Matched sample	(5) Board-joining outside the stigmatized industry	(6) Leaving a board outside vs inside the arms industry
Firm relative performance	16.159***	5.185	15.416***	4.211+	1.773	72.955
	(4.755)	(7.499)	(3.922)	(2.153)	(2.164)	(49.085)
Firm relative size	2.992***	0.569	2.738***	0.779	0.493	9.441
	(0.793)	(0.413)	(0.705)	(0.625)	(0.443)	(7.454)
Non-arms attacks	-0.187	-0.121	-0.194	-0.241	-0.169	-0.412
	(0.250)	(0.228)	(0.264)	(0.253)	(0.105)	(0.400)
Firm reputation	-1.477	-1.396	-1.006	0.064	-0.086	1.099
	(0.967)	(0.915)	(0.851)	(0.303)	(0.269)	(1.546)
Firm media visibility	-0.533*	-0.489*	-0.187	-0.005	-0.201	0.225
	(0.226)	(0.205)	(0.219)	(0.167)	(0.189)	(0.689)
Firm defense status	0.253	0.480	0.218	0.183	0.293	-0.200
	(0.466)	(0.418)	(0.477)	(0.135)	(0.194)	(0.569)
Firm commercial status	-0.146	-0.340	-0.068	-0.327+	0.079	-0.012
	(0.376)	(0.407)	(0.336)	(0.168)	(0.195)	(0.862)
Market share	-2.785***	-2.755***	-2.713***	-0.855	-0.903*	-1.642
	(0.662)	(0.676)	(0.646)	(0.657)	(0.407)	(1.302)
Association dilution	-0.980	-0.319	-0.743	-0.307	0.471	-0.238
	(1.266)	(1.314)	(1.266)	(1.134)	(0.663)	(1.374)
CEO age	3.918	3.777	3.365	-1.112	1.362	42.030
	(3.748)	(3.803)	(2.932)	(1.366)	(1.204)	(51.420)
CEO tenure	-0.447	0.120	-0.336	-0.428+	-0.105	-2.503+
	(0.475)	(0.362)	(0.439)	(0.253)	(0.182)	(1.405)
CEO prior experience in arms	-0.627	-0.568	-0.517	0.139	-0.176	1.560
	(0.664)	(0.510)	(0.465)	(0.146)	(0.120)	(2.834)
CEO prior experience outside arms	1.245*	0.990*	0.924*	-0.279	0.055	16.312*
	(0.513)	(0.404)	(0.404)	(0.208)	(0.145)	(6.550)
CEO outside directorships	-1.662**	-1.181+	-1.512***	1.020***	-0.212*	-0.566+
	(0.545)	(0.608)	(0.449)	(0.199)	(0.107)	(0.300)
CEO associations outside arms	-0.845	-0.407	-0.744	-1.246	-1.203	-10.906+
	(0.845)	(0.934)	(0.696)	(1.248)	(0.790)	(6.576)
CEO policy-making associations	-0.400	-0.555	-0.298	-0.992+	-0.170	-1.657+
	(0.722)	(0.641)	(0.594)	(0.538)	(0.236)	(0.982)
CEO arms associations	0.562	0.560	0.468	-0.097	-0.269	-0.563
	(0.352)	(0.352)	(0.357)	(0.335)	(0.250)	(1.220)
CEO reputational capital	0.163	0.090	0.097	-0.043	0.093	-2.716
	(0.277)	(0.270)	(0.277)	(0.262)	(0.101)	(1.680)

CEO visibility	-0.032	0.041	0.017	0.366*	0.040	0.123
	(0.457)	(0.433)	(0.363)	(0.171)	(0.154)	(0.576)
Peers' negative publicity	0.010	0.011*	0.007	0.007	-0.001	-0.003
	(0.006)	(0.005)	(0.006)	(0.004)	(0.004)	(0.012)
Negative publicity	0.761*		**0.744****	**0.411****	**0.176**	-3.208+
	(0.320)		**(0.269)**	**(0.158)**	**(0.154)**	(1.822)
Positive publicity	0.205					
	(0.320)					
Negative publicity for immoral activities		1.596*				
		(0.648)				
Negative publicity for illegal activities		-1.154+				
		(0.598)				
Left firm performance						-6.732
						(4.551)
Left firm size						-54.100
						(48.723)
Outside-arms board						32.939***
						(9.025)
Negative publicity × Outside-arms board						**2.936+**
						(1.684)
Observations	718	718	718	1149	1206	1591
Number of firms	73	73	73	160	98	111
Number of CEOs	101	101	101	305	220	127
Year fixed effects	YES	YES	YES	No	YES	YES
Fixed effects	Firm	Firm	Firm	No	Firm	CEO
Robust standard errors	Firm	Firm	Firm	No	Firm	CEO
Pseudo R^2	0.275	0.279	0.463	0.251	0.071	0.797

Standard errors in parentheses, $^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5 - Marginal Effects of Negative Publicity on CEOs' Board-joining at Different Levels of CEO Reputational Capital and CEO Visibility for Robustness Tests and Post-hoc Analyses

Moderating variable	Level of moderator	(1) Poisson regression	(2) Matched sample	(3) Board-joining outside the stigmatized industry
CEO reputational capital	4 awards	-1.63*	-1.06	1.01^{+}
		(0.70)	(3.74)	(0.55)
	3 awards	-0.74	-0.12	0.79^{+}
		(0.54)	(2.74)	(0.43)
	2 awards	0.15	0.81	0.58^{+}
		(0.41)	(1.78)	(0.32)
	1 award	1.04**	1.75^{+}	0.37
		(0.38)	(1.02)	(0.23)
	0 awards	1.93***	2.69*	0.15
		(0.46)	(1.03)	(0.21)
CEO visibility	2 SD above mean	0.65	-0.51	0.21
		(0.65)	(1.39)	(0.25)
	1 SD above mean	2.31*	0.98	0.24
		(0.51)	(0.91)	(0.22)
	Mean	3.31**	2.48**	0.27
		(0.39)	(0.92)	(0.21)
	1 SD below mean	3.60***	3.97**	0.30
		(0.33)	(1.41)	(0.24)
	2 SD below mean	3.63***	5.47**	0.33
		(0.35)	(2.06)	(0.29)

Standard errors in parentheses. $^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

FIGURES

Figure 1: Geographical distribution of firms in our sample (Total = 205 firms)

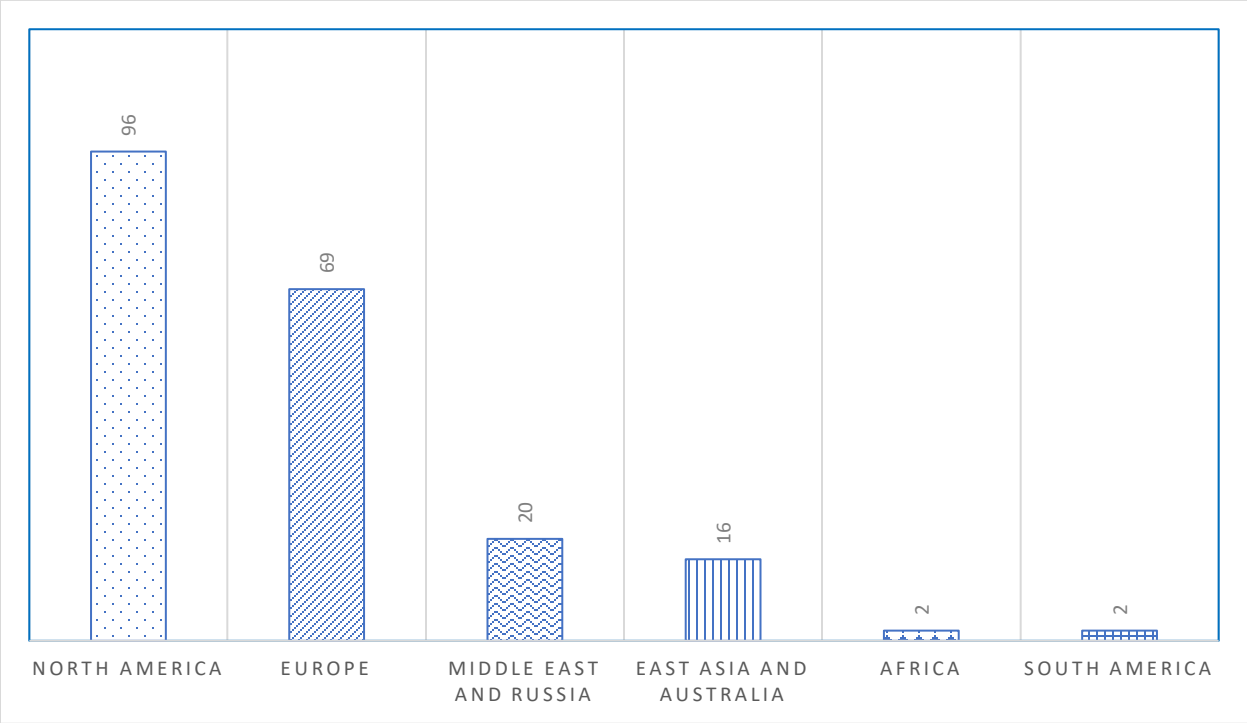


Figure 2: Yearly Distribution of Negative Publicity for Firms in our Sample (Total= 8,632 articles)

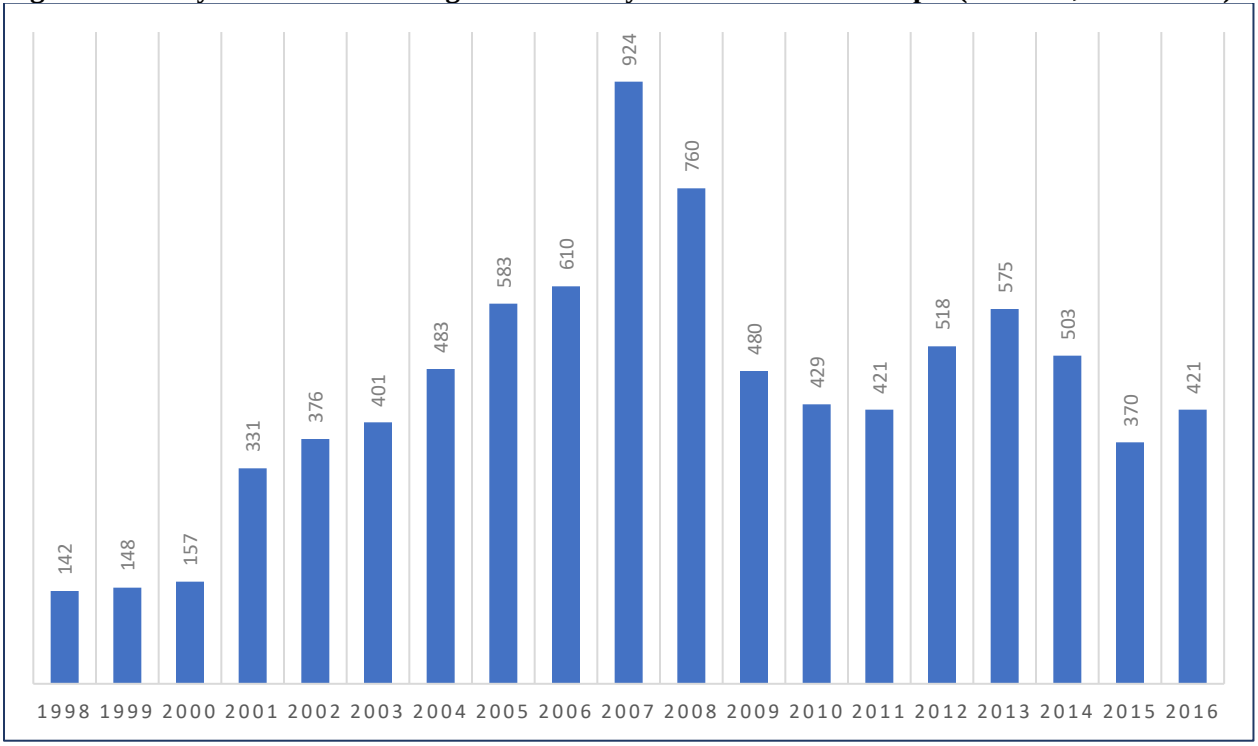


Figure 3: Interaction Effects between Negative Publicity and CEOs' Reputational Capital on CEO's Board-joining within the Stigmatized Industry

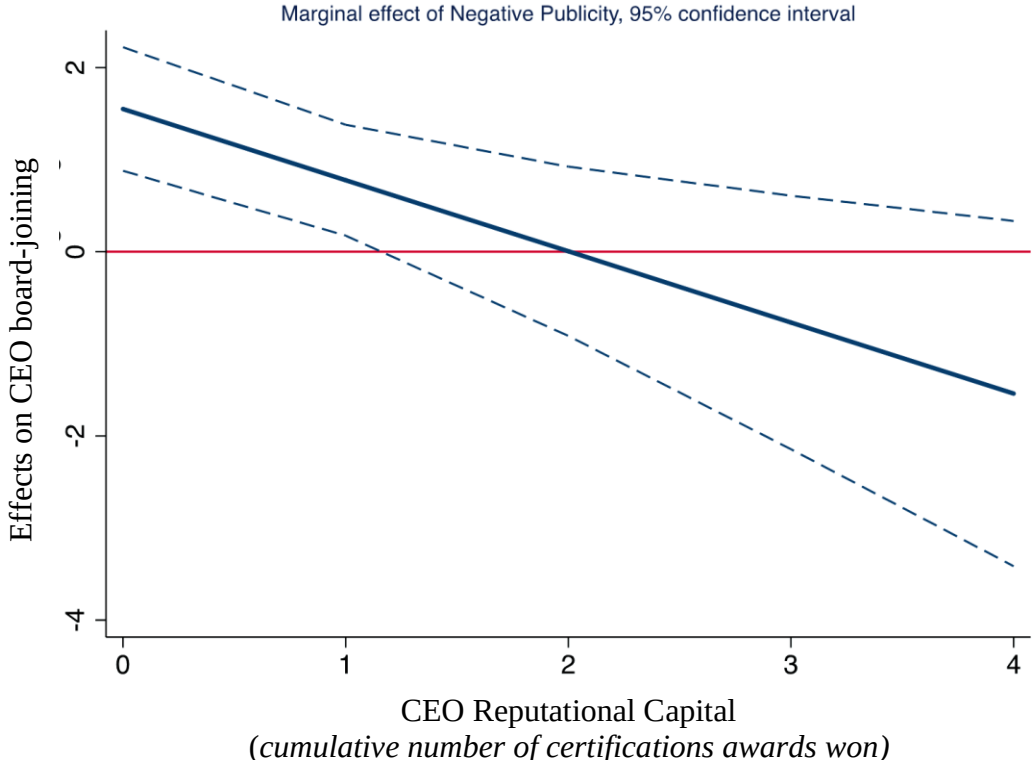
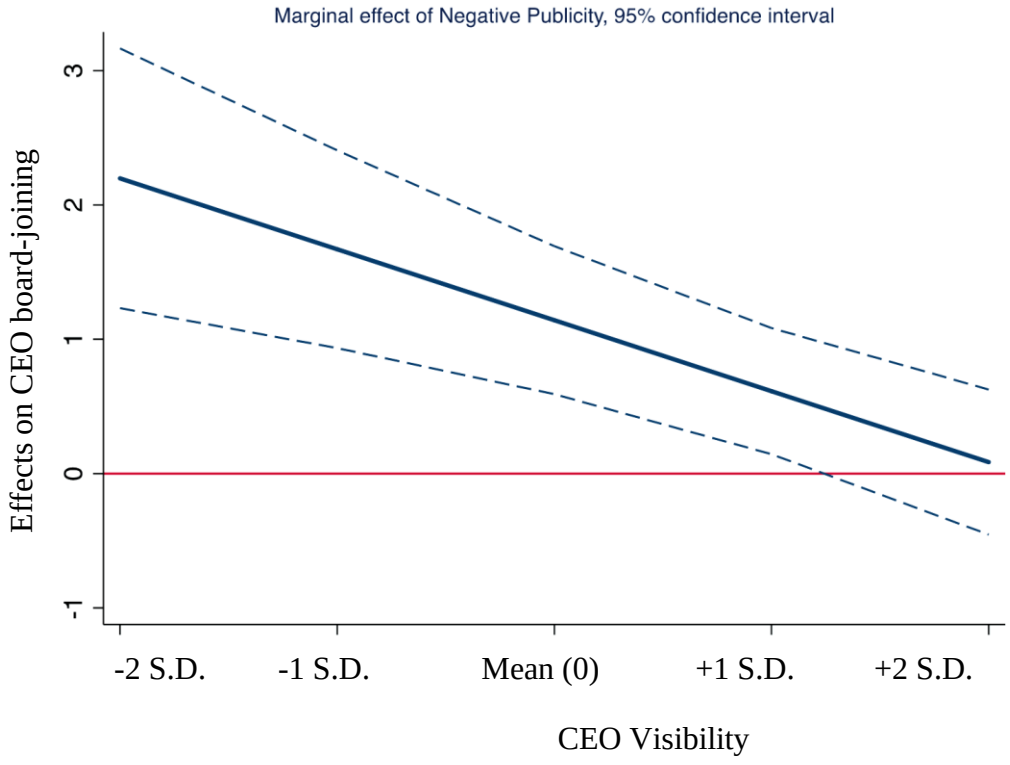


Figure 4: Interaction Effects between Negative Publicity and CEOs' Visibility on CEO's Board-joining within the Stigmatized Industry



APPENDIX A

Table A-1 – Conditional Fixed-effects Poisson Regression of the Effect of Negative Publicity on the Likelihood of CEOs' Board-joining within the Stigmatized Industry (Model 3 of Table 4 in the manuscript)

	(1) Controls	(2) Negative publicity (H1)	(3) CEO reputational capital as moderator (H2a)	(4) CEO visibility as moderator (H2b)	(5) Full model
Firm relative performance	13.295***	15.416***	15.024***	17.662***	18.160***
	(3.481)	(3.922)	(3.998)	(4.509)	(4.422)
Firm relative size	2.484***	2.738***	2.788***	3.040***	3.233***
	(0.712)	(0.705)	(0.698)	(0.723)	(0.736)
Non-arms attacks	-0.184	-0.194	-0.169	-0.036	-0.011
	(0.295)	(0.264)	(0.216)	(0.288)	(0.261)
Firm reputation	-1.051	-1.006	-0.911	-1.470+	-1.496*
	(0.861)	(0.851)	(0.822)	(0.807)	(0.732)
Firm media visibility	-0.221	-0.187	-0.158	-0.267	-0.238
	(0.199)	(0.219)	(0.208)	(0.241)	(0.235)
Firm defense status	0.200	0.218	0.109	0.215	0.153
	(0.599)	(0.477)	(0.492)	(0.432)	(0.430)
Firm commercial status	-0.129	-0.068	-0.017	-0.068	-0.006
	(0.353)	(0.336)	(0.346)	(0.337)	(0.361)
Market share	-2.409***	-2.713***	-2.840***	-2.865***	-3.070***
	(0.641)	(0.646)	(0.678)	(0.676)	(0.697)
Association dilution	-0.774	-0.743	-0.980	-0.933	-1.032
	(1.471)	(1.266)	(1.323)	(1.277)	(1.311)
CEO age	3.511	3.365	3.408	4.160	4.240
	(3.092)	(2.932)	(2.841)	(3.061)	(3.019)
CEO tenure	-0.239	-0.336	-0.291	-0.337	-0.352
	(0.439)	(0.439)	(0.436)	(0.459)	(0.477)
CEO prior experience in arms	-0.557	-0.517	-0.499	-0.706	-0.740
	(0.440)	(0.465)	(0.418)	(0.469)	(0.454)
CEO prior experience outside arms	0.885*	0.924*	0.917*	1.084*	1.133**
	(0.383)	(0.404)	(0.365)	(0.432)	(0.416)
CEO outside directorships	-1.505***	-1.512***	-1.588***	-1.633***	-1.746***
	(0.449)	(0.449)	(0.436)	(0.467)	(0.480)
CEO associations outside arms	-0.487	-0.744	-0.623	-0.708	-0.819
	(0.723)	(0.696)	(0.721)	(0.635)	(0.623)
CEO policy-making associations	-0.127	-0.298	-0.061	-0.195	-0.023
	(0.583)	(0.594)	(0.527)	(0.595)	(0.572)
CEO arms associations	0.433	0.468		0.202	0.152
	(0.393)	(0.357)		(0.332)	(0.331)
CEO reputational capital	0.076	0.097	0.961*	0.139	0.894*
	(0.276)	(0.277)	(0.381)	(0.295)	(0.397)
CEO visibility	0.112	0.017	-0.046	0.566	0.565
	(0.421)	(0.363)	(0.384)	(0.372)	(0.358)
Peers' negative publicity	0.006	0.007	0.007	0.009	0.009+
	(0.006)	(0.006)	(0.006)	(0.006)	(0.005)
Negative publicity		**0.744****	**1.032****	**1.014*****	**1.300*****
		(0.269)	**(0.314)**	**(0.285)**	**(0.298)**
Negative publicity × CEO reputational capital			**-0.844*****		**-0.833*****
			(0.218)		**(0.225)**
Negative publicity × CEO visibility				**-0.410*****	**-0.426****
				(0.118)	**(0.131)**
Observations	718	718	718	718	718

Number of firms	73	73	73	73	73
Number of CEOs	101	101	101	101	101
Year fixed effects	YES	YES	YES	YES	YES
Firm fixed effects	YES	YES	YES	YES	YES
Robust standard errors at the firm level	YES	YES	YES	YES	YES
Log pseudolikelihood	-90.57	-88.01	-85.59	-84.80	-81.94

Standard errors in parentheses, $^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A-2 – Conditional Fixed-effects Logistic Regression: The Effect of Negative Publicity on the Likelihood of CEOs' Board-joining outside the Stigmatized Industry (Model 5 of Table 4 in the manuscript)

	(1) Controls	(2) Negative publicity (H1)	(3) CEO reputational capital as moderator (H2a)	(4) CEO visibility as moderator (H2b)	(5) Full model
Firm relative performance	1.815	1.773	1.783	1.770	1.785
	(2.104)	(2.164)	(2.186)	(2.165)	(2.189)
Firm relative size	0.491	0.493	0.516	0.494	0.516
	(0.443)	(0.443)	(0.444)	(0.442)	(0.443)
Non-arms attacks	-0.158	-0.169	-0.163	-0.169	-0.163
	(0.105)	(0.105)	(0.106)	(0.104)	(0.106)
Firm reputation	-0.062	-0.086	-0.099	-0.085	-0.100
	(0.261)	(0.269)	(0.271)	(0.269)	(0.271)
Firm media visibility	-0.187	-0.201	-0.189	-0.200	-0.190
	(0.190)	(0.189)	(0.190)	(0.189)	(0.190)
Firm defense status	0.297	0.293	0.296	0.294	0.296
	(0.197)	(0.194)	(0.195)	(0.195)	(0.197)
Firm commercial status	0.085	0.079	0.081	0.079	0.081
	(0.197)	(0.195)	(0.195)	(0.195)	(0.195)
Market share	-0.913*	-0.903*	-0.905*	-0.904*	-0.905*
	(0.404)	(0.407)	(0.410)	(0.404)	(0.407)
Association dilution	0.458	0.471	0.482	0.474	0.480
	(0.664)	(0.663)	(0.667)	(0.671)	(0.674)
CEO age	1.434	1.362	1.383	1.355	1.387
	(1.207)	(1.204)	(1.214)	(1.219)	(1.231)
CEO tenure	-0.114	-0.105	-0.105	-0.105	-0.105
	(0.183)	(0.182)	(0.181)	(0.182)	(0.182)
CEO prior experience in arms	-0.179	-0.176	-0.181	-0.175	-0.182
	(0.119)	(0.120)	(0.120)	(0.120)	(0.120)
CEO prior experience outside arms	0.057	0.055	0.065	0.055	0.065
	(0.149)	(0.145)	(0.146)	(0.145)	(0.146)
CEO outside directorships	-0.218*	-0.212*	-0.217*	-0.212*	-0.218*
	(0.106)	(0.107)	(0.107)	(0.107)	(0.108)
CEO associations outside arms	-1.227	-1.203	-1.232	-1.204	-1.232
	(0.802)	(0.790)	(0.812)	(0.793)	(0.813)
CEO policy-making associations	-0.159	-0.170	-0.176	-0.171	-0.176
	(0.234)	(0.236)	(0.236)	(0.237)	(0.237)
CEO arms associations	-0.271	-0.269	-0.256	-0.268	-0.257
	(0.256)	(0.250)	(0.248)	(0.250)	(0.248)
CEO reputational capital	0.095	0.093	-0.033	0.093	-0.033
	(0.101)	(0.101)	(0.183)	(0.101)	(0.184)
CEO visibility	0.046	0.040	0.046	0.034	0.049
	(0.155)	(0.154)	(0.153)	(0.178)	(0.176)
Peers' negative publicity	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Negative publicity		**0.176**	**0.147**	**0.175**	**0.148**
		(0.154)	**(0.155)**	**(0.155)**	**(0.155)**
Negative publicity × CEO reputational capital			**0.069**		**0.069**
			(0.082)		**(0.082)**
Negative publicity × CEO visibility				**0.004**	**-0.002**
				(0.077)	**(0.077)**
Observations	1206	1206	1206	1206	1206

Number of firms	98	98	98	98	98
Number of CEOs	220	220	220	220	220
Year fixed effects	YES	YES	YES	YES	YES
Firm fixed effects	YES	YES	YES	YES	YES
Robust standard errors at the firm level	YES	YES	YES	YES	YES
Pseudo R^2	0.069	0.071	0.072	0.071	0.072

Standard errors in parentheses, $^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A-3: Fixed effects Multinomial regression of CEOs' Board-joining Outside and Within the

Stigmatized Industry

Panel 1. Joining the board of firms outside the arms industry	
Negative publicity	**0.154**
	(0.167)
Negative publicity × CEO reputational capital	**0.007**
	(0.096)
Negative publicity × CEO visibility	**0.067**
	(0.076)
Firm relative performance	-0.498
	(1.933)
Firm relative size	-0.308
	(0.344)
Non-arms attacks	-0.175
	(0.107)
Firm reputation	-0.139
	(0.300)
Firm media visibility	-0.139
	(0.197)
Firm defense status	0.322
	(0.226)
Firm commercial status	0.079
	(0.200)
Market share	-0.729
	(0.639)
Association dilution	0.591
	(0.728)
CEO age	1.242
	(1.349)
CEO tenure	-0.018
	(0.207)
CEO prior experience in arms	-0.208
	(0.145)
CEO prior experience outside arms	0.089
	(0.163)
CEO outside directorships	-0.271*
	(0.125)
CEO associations outside arms	-1.201+
	(0.641)
CEO policy-making associations	-0.217
	(0.241)
CEO arms associations	-0.268
	(0.276)
CEO reputational capital	-0.036
	(0.180)
CEO visibility	-0.001
	(0.221)
Peers' negative publicity	-0.001
	(0.003)
Panel 2. Joining the board of firms within the arms industry	
Negative publicity	**1.456****
	(0.483)
Negative publicity × CEO reputational capital	**-0.523***
	(0.208)
Negative publicity × CEO visibility	**-1.366***
	(0.671)
Firm relative performance	12.541+

	(6.688)
Firm relative size	0.326
	(0.880)
Non-arms attacks	0.012
	(0.285)
Firm reputation	-2.256^{+}
	(1.290)
Firm media visibility	-0.813*
	(0.396)
Firm defense status	0.244
	(0.451)
Firm commercial status	-0.310
	(0.414)
Market share	-1.226
	(1.342)
Association dilution	-3.886***
	(1.05)
CEO age	4.333
	(3.737)
CEO tenure	-0.225
	(0.496)
CEO prior experience in arms	-0.785^{+}
	(0.453)
CEO prior experience outside arms	1.643***
	(0.438)
CEO outside directorships	-2.239***
	(0.483)
CEO associations outside arms	-1.322
	(1.189)
CEO policy-making associations	-0.408
	(0.749)
CEO arms associations	0.234
	(0.439)
CEO reputational capital	1.135
	(0.748)
CEO visibility	0.498
	(0.565)
Peers' negative publicity	0.013^{+}
	(0.007)
Observations	1345
Pseudo R^2	0.145

Standard errors in parentheses $^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A-4: The keywords used to extract instances of stakeholders' attacks on firms' immoral and illegal activities

Type of stakeholders' attacks	Code used to extract instances of coverage in the news outlets
Moral-based attacks	(name of the firm) near20 (harm* or hurt* or kill* or death* or died* or (human* near 3 right*) or tortur* or war crime* or deceitful or devious or wicked or criminals or blood* or demon or beast or evil or monster* or inhuman or barbaric or dishonest* or (accus* near8 (harm* or hurt* or kill*)) sin or cruel* or oppress* or sinful or immoral or unethical or (violat* near5 human*) or shameful or wound* or mistreat or injur* or innocen* or (profit near5 war) or (promot* near5 war) or activists or protester* or protestor* or demonstrators or Amnesty or ugly or ((threat* or damage* or destroy* or risk* or jeopar* or peril* or imperil* or menac* or endanger* or damag* or violat* or transgress*or disregard*) near5 (peac* or lives or world or innocen* or nations or people or women or children or kids)))
Legal-based attacks	(Name of the firm) near20 (illegal* or ((against or break* or violat* or ignor* or breach* or infring* or disregard* or transgress* or overcharge* or mischarge* or rigg* or fool or flaw) near5 (rules or law or laws or legislation* or regulation* or constitution* or practices* or contract*)) or corrupt* or allegat* or shady or black market* or brib* or scandal or fraud* or lawless or criminal or felonious or malfeasant or kickback* or misconduct* or wrongdoing* or (accus* near5 (misconduct* or wrongdoing* or corrupt*)) or under investigat*)

Figure A-1: Poisson regression Interaction Effects between Negative Publicity and CEOs' Reputational Capital on CEO's Board-joining within the Stigmatized Industry (Model 2 of Table 4 in the manuscript)

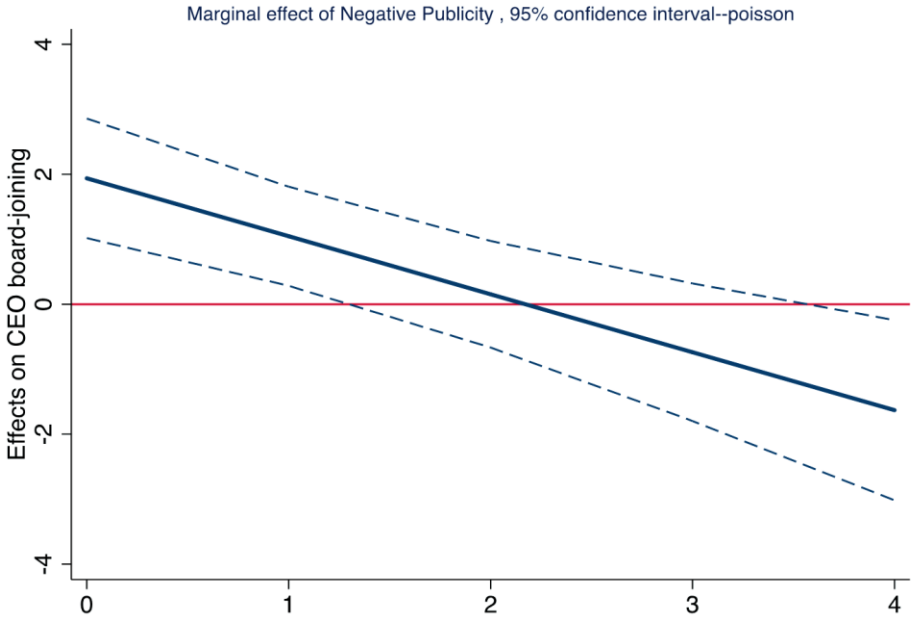


Figure A-2: Poisson regression Interaction Effects between Negative Publicity and CEOs' Visibility on CEO's Board-joining within the Stigmatized Industry (Model 2 of Table 4 in the manuscript)

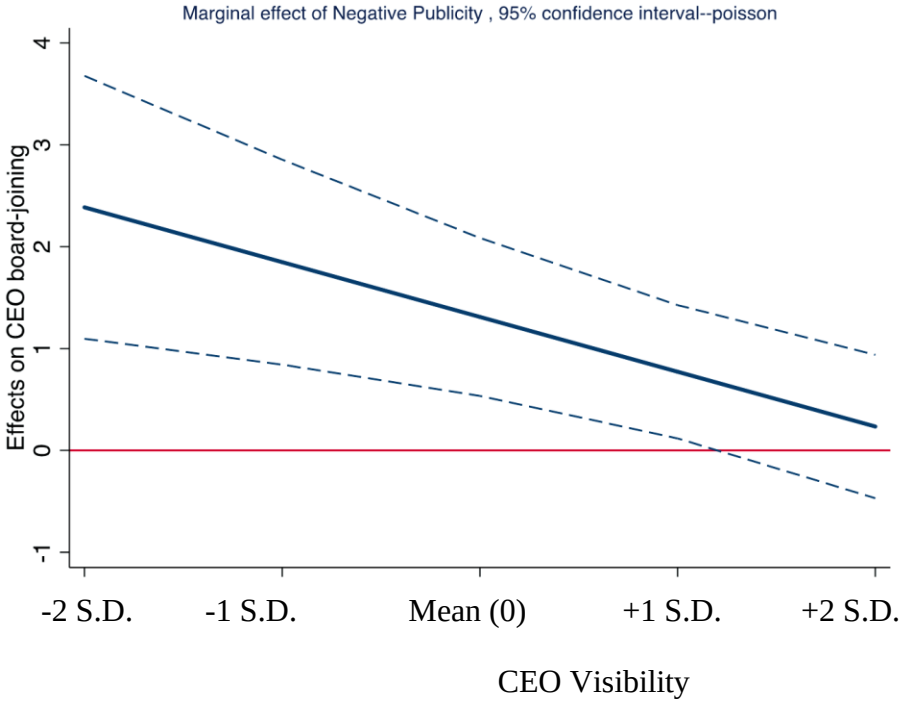


Figure A-3: Interaction Effects between Negative Publicity and CEOs' Reputational Capital on CEO's Board-joining Outside the Stigmatized Industry (Model 4 of Table 4 in the manuscript)

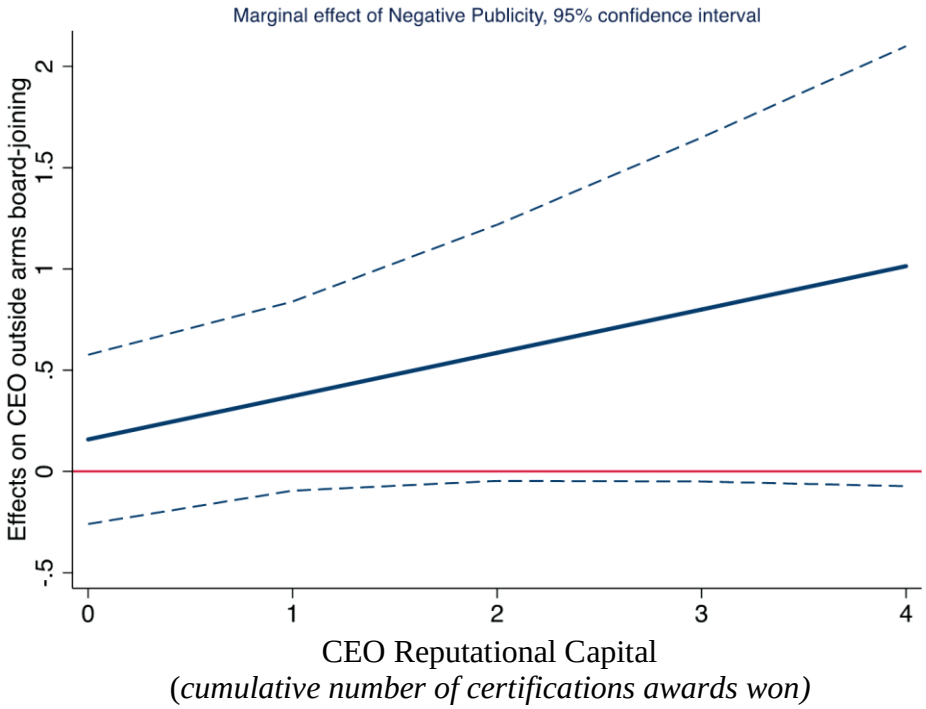


Figure A-4: Interaction Effects Between Negative Publicity and CEOs' Visibility on CEO's Board-joining Outside the Stigmatized Industry (Model 4 of Table 4 in the manuscript)