



# The Ties that Bind or Those That Tear Us Apart? Co-CEO Constellations and ESG Performance in Family Firms

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## Abstract

While the prevailing perspective on executive leadership has emphasized the effectiveness of a unified command structure, family firms frequently adopt shared leadership structures, such as dyads, triads, or larger co-CEO constellations. Given the widespread use of such structures in family firms, it becomes imperative to understand how family involvement in the firm shapes the dynamics of co-CEO constellations and their implications for firm outcomes. Drawing upon the socioemotional wealth (SEW) perspective, we propose that the salience of extended SEW concerns increases the costs associated with a shared leadership structure. These elevated costs, in turn, result in adverse environmental, social, and governance (ESG) outcomes. Our empirical analysis, based on panel data from 76 Italian firms listed on the Milan Stock Exchange during 2003–2020, suggests that family firms employing a co-CEO structure tend to exhibit lower ESG performance, while a positive relationship emerges in nonfamily firms. We theorize and find empirical support that the negative effect for family firms stems from family-induced cognitive diversity, manifested via the inclusion of both family and nonfamily members or family members from different generations in the co-CEO constellation. Importantly, we identify a key mitigating factor: when one of the co-CEOs also holds the position of the board chair, the negative impact of the co-CEO structure on ESG performance is mitigated and even turns positive. These findings advance our understanding of how family involvement in the shared leadership structure shapes a firm's ethical orientation, having important implications for the governance of family firms.

**Keywords** Co-CEOs · Family firms · ESG performance

## Introduction

The traditional view on leadership emphasizes the importance of a single, strong leader (Fayol, 1949; Finkelstein et al., 2009). However, in family firms, shared leadership structures such as dyads, triads, and larger constellations are not uncommon (Campopiano et al., 2020; MassMutual, 2007). Despite the preponderance of co-CEO structures in family firms, such structures have received only scant attention from family business scholars (Alvarez & Svejenova, 2005; Arena et al., 2011; Krause et al., 2015). The extant literature does not agree on the benefits of such structures. On the one hand, some studies argue that having co-CEOs in family firms brings about benefits such as better management of the business and socioemotional objectives (Rahael, 2012), may help with the intergenerational transition (Campopiano et al., 2020; Cater & Schwab, 2008), may facilitate professionalization (Gibeau et al., 2016), and may also contribute to a reduction in agency costs (Amore et al., 2017). On the other hand, co-CEO structures in family firms may

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generate conflicts due to dysfunctional interpersonal dynamics between the family and nonfamily co-CEOs, as well as from family opportunism (D'Angelo et al., 2022; Miller et al., 2014a, 2014b). Taken together, this literature suggests that family involvement in co-CEO leadership structures may have a powerful effect on the effectiveness of such structures and their outcomes.

As studies mainly focus on the financial outcomes of co-CEO structures in family firms, the literature is as yet unclear about the implications of such structures for other outcomes, particularly for a firm's environmental, social, and governance (ESG) performance<sup>1</sup> (Alvarez & Svejnova, 2005; Hasija et al., 2017). Gaining an understanding of the implications of co-CEO leadership for family firms' ESG performance is important and relevant, given the significance of the latter for a firm's ability to create long-term value and ensure its survival (Fafaliou et al., 2022; Reber et al., 2022), as well as the particularly strong impact of executives on this type of performance (Burke, 2022; Hasija et al., 2017; Wernicke et al., 2022). Moreover, the emerging body of literature on family business ethics highlights a significant distinction between family and nonfamily firms in their ethical conduct toward stakeholders (Long & Mathews, 2011; Vazquez, 2018), maintaining that family members' influence can lead to both ethical and unethical behaviors (Cruz et al., 2014). However, there is still a substantial gap in our understanding of the mechanisms shaping the unique ethical orientation of family firms, particularly in the governance domain (Signori & Fassin, 2023). A co-CEO structure, integral to the dominant coalition within family firms, serves as a valuable governance tool for family owners to exert influence on their firms (Amore et al., 2017; Campopiano et al., 2020; Miller et al., 2014a, 2014b), affecting the ethical decisions, as reflected by a firm's ESG performance. Therefore, considering family involvement within these governance structures becomes crucial when seeking to understand the development of the ethical orientation of family firms and the factors contributing to heterogeneity among such firms (Dielman & Koning, 2020; Signori & Fassin, 2023; Vazquez, 2018). This gives rise to the following research question: *Does family involvement in a firm influence the impact of a co-CEO leadership structure on ESG performance, and if so, how?*

To answer this question, we draw on the socioemotional wealth (SEW) perspective (Gómez-Mejía et al., 2011;

Gómez-Mejía et al., 2019) – "... the theoretical foundation for most family-business research dealing with social issues" (Van Gils et al., 2014, p. 195). According to this perspective, family involvement in a firm is reflected in the salience of socioemotional concerns, denoting the family owners' affective needs, such as the desire to maintain family control and influence, identification with the firm, social bonding, and the perpetuation of the family's legacy (Davila et al., 2022; Gómez-Mejía & Herrero, 2022). As per the SEW perspective, we posit that the interplay between different SEW concerns and financial considerations gives rise to *family-induced cognitive diversity*, defined here as the presence of different perspectives, information-processing methods, and power dynamics that can manifest both between family and nonfamily members as well as among family members. We argue that the presence of family-induced cognitive diversity in the co-CEO constellation can lead to adverse consequences for interpersonal dynamics and increase the need for coordination within the leadership structure. In turn, this may compromise the advantages of a co-CEO leadership structure for family firms' ESG performance, while augmenting its costs. Conversely, nonfamily firms, where family-induced diversity may not be present to the same extent, may experience less need for coordination and thus will derive greater benefits from shared leadership, with lower associated costs, resulting in an overall positive effect on ESG outcomes (Hasija et al., 2017).

We subsequently focus on the differences among family firms by examining how different levels of family-induced cognitive diversity, represented by a mix of family and nonfamily co-CEOs or generational differences among the family co-CEOs, influence the co-CEOs' willingness and ability to engage in ESG initiatives. We argue that greater family-induced cognitive diversity leads to greater interpersonal tensions within the co-CEO structure, exacerbating the negative effect on ESG performance. In contrast, co-CEO constellations with lower family-induced cognitive diversity exhibit better alignment in behaviors and objectives, leading to more effective communication and coordination and superior ESG performance. Additionally, we investigate the moderating impact of a power difference within the family co-CEO constellation on the link between a co-CEO structure and ESG outcomes. We posit that the presence of the board chair within the co-CEO constellation serves as a coordinating mechanism, containing the negative effect of family-induced cognitive diversity, resulting in an overall positive influence of a shared leadership structure on ESG outcomes.

We test the validity of our hypotheses on a sample of Italian family firms listed on the Milan Stock Exchange, which offers a unique setting due to the significant presence of family firms (Cirillo et al., 2015; Cucculelli & Micucci, 2008; Minichilli et al., 2016) and the wide

<sup>1</sup> While acknowledging the existence of different alternative terms coined within the ESG field, such as ESG performance, corporate social performance (CSP), sustainability, and corporate social responsibility (CSR), we use the term 'ESG performance' to refer to how corporations integrate environmental, social, and governance concerns into their business models (Gillan et al., 2021) throughout this paper.

adoption of co-CEO structures (D'Angelo et al., 2022; Miller et al., 2014a, 2014b). Our empirical analysis provides support for our hypotheses, indicating that the co-CEO leadership structure is negatively associated with ESG outcomes in family firms, whereas this relationship is positive for nonfamily firms. Accounting for heterogeneity among family firms, we find that the adverse impact of the co-CEO structure on ESG performance stems from: (1) mixed co-CEO constellations consisting of family and nonfamily co-CEOs, and (2) family co-CEOs belonging to different generations. Furthermore, our research uncovers that family firms with family co-CEO constellations can improve their ESG performance by counterbalancing this structure with the presence of a CEO-chair within the leadership constellation.

The contribution of our study is threefold. First, we advance corporate governance research by offering fresh insights into the ongoing debate surrounding shared leadership and the unity of command perspectives (Arena et al., 2011; Krause et al., 2015; Matozza & D'Amico, 2020). We challenge the notion that the unity of command and shared leadership are opposing perspectives by examining the boundary conditions of the shared leadership perspective. Our theory suggests that a combination of elements from both approaches can effectively enhance a firm's ESG engagement. Such a combination becomes particularly valuable when the coordination within the co-CEO leadership structure is crucial, such as in the presence of competing demands of family and nonfamily stakeholders. Second, our work enriches the field of business ethics by deepening our understanding of the role of family business in society and ethical decision-making within such a context. In doing so, we contribute to the emerging debate on family business ethics (Dielman & Koning, 2020; Van Gils et al., 2014; Vazquez, 2018) by elucidating some of the governance mechanisms that shape the distinct ethical choices of family firms. Lastly, our study extends the family business literature by offering empirical support and advancing the theoretical underpinnings of the SEW perspective (Davila et al., 2022; Swab et al., 2020). Specifically, we introduce the concept of family-induced cognitive diversity as an important mechanism that shapes how SEW concerns influence a firm's ability to meet stakeholder needs. This contributes to scholars ongoing efforts to explore the boundary conditions that influence the relationship between SEW and ESG outcomes (Meier & Schier, 2021). Beyond these theoretical contributions, our study provides important insights for family owners and family firm stakeholders by specifying under which conditions a co-CEO structure in a family firm enhances ESG performance and under which conditions it reduces it.

## Theoretical Framework and Hypotheses

### Co-CEO Structures and Firm ESG Performance

Shared leadership theory maintains that co-CEO structures can bring about tangible benefits to the organization (Pearce & Conger, 2002). As firms are becoming increasingly complex, they require their leaders to possess a more diverse set of skills to make complex decisions in an increasingly dynamic environment (O'Toole et al., 2002). Multiple co-CEOs may hence enrich a firm's cognitive resources by bringing different sets of complementary skills and competencies that cannot be easily held by a single individual (Arena et al., 2011; Arnone & Stumpf, 2010). This can in turn reduce the exploration–exploitation role conflict and, in doing so, provide a fertile ground for innovative and creative thinking (Hunter et al., 2017, 2018). Furthermore, having multiple leaders at the helm of the organization, with each of them focusing on a particular aspect of the business, allows firms to broaden the scope of roles undertaken by the top executives (Feigen et al., 2022), ultimately enabling them to better address the competing demands of multiple stakeholders (Pfeffer & Salancik, 2003). Another potential advantage of co-CEO leadership comes from the mutual monitoring among the co-CEOs (Banham, 2012). Co-CEO leadership implies shared responsibility and reduces the discretion of the individual co-CEOs, thereby limiting their ability to pursue self-interest at the expense of the minority shareholders and other stakeholders (Choi et al., 2018; Lee et al., 2019; Yoo et al., 2021).

The shared leadership theory is in sharp contrast with the traditional view of executive leadership grounded in the unity of command principle (Finkelstein et al., 2009). This dominant view in management research conceptualizes executive leadership as a solo act and implies vertical top-down interaction between the leader and the subordinates. According to this view, executive leadership is most effective when decision-making power is concentrated in the hands of a single individual (Fayol, 1949; Weber, 1958). In contrast, the presence of multiple leaders may give rise to coordination costs stemming from mutual mistrust, clashes between strong egos, interpersonal rivalry and conflicts, and political maneuvering among the co-CEOs (Arnone & Stumpf, 2010; O'Toole et al., 2002). The negative interpersonal climate within the co-CEO constellation may in turn extend to the organization, damaging leadership attribution and morale among the employees (Reid & Karambayya, 2009). Even if the co-CEOs collaborate effectively, having multiple leaders may still lead to loyalty dispersion among the employees, duplicated reporting, and diffusion of responsibility

(Alvarez & Svejnova, 2005). Overall, this line of reasoning suggests that, due to the increased costs of coordination, co-CEO leadership is less effective than leadership by a single CEO.

The trade-offs between the benefits and costs of a shared leadership structure have been empirically examined by previous studies, generating mixed evidence. Some studies provide support for the shared leadership perspective (Arena et al., 2011; 2022; Hong & Kim, 2022; Dennis et al., 2009), whereas others find support for the unity of command principle, suggesting that the benefits of the co-CEO leadership structure are most pronounced when there is a power gap among the co-CEOs (Krause et al., 2015). However, if the power differences become too large, the effect of co-CEO leadership on firm outcomes turns negative (Krause et al., 2015; Matozza & D'Amico, 2020).

Nonetheless, the focus of extant empirical studies has been largely limited to financial performance outcomes, which could be problematic as financial performance may be affected by many factors outside the executives' control. Furthermore, the leadership structure may have implications on a wider range of outcomes, including noneconomic ones (Chrisman et al., 2003). Against this backdrop, scholars have encouraged shifting the focus onto outcomes on which the CEO has a greater influence (Wernicke et al., 2022). Thus, the analysis of the "small numbers" at the top (Alvarez & Svejnova, 2005) is critical for shaping family firms' ethical orientation in general (Long & Mathews, 2011) and the pursuit of ESG goals in particular.

What little evidence exists indicates that shared leadership has a positive effect on ESG performance, suggesting that the benefits of a co-CEO structure may outweigh its costs in this performance domain. Firms achieve high ESG performance when they are able to address the needs of multiple stakeholders, whereas ESG performance tends to be low when the firm meets the needs of a more limited number of stakeholders and/or when the interests of one stakeholder group are given priority over those of the others (Wong et al., 2011). The enhanced information-processing capacity of co-CEO constellations allows them to cover a wider range of roles and attain social issues in an ambidextrous manner, which in turn leads to enhanced ESG performance (Hasija et al., 2017). Furthermore, sharing authority among multiple leaders creates a system of checks and balances that leads to more responsible decisions and minimizes irresponsible behavior toward stakeholders (Pearce et al., 2008; Pearce & Manz, 2011). In support, Hasija et al. (2017) provide evidence that firms led by co-CEOs are associated with higher levels of ESG but lower levels of corporate social irresponsibility. Furthermore, studies on shared leadership provide some indirect empirical evidence of a positive link between co-CEO leadership and ESG performance by indicating that such leadership leads to a reduction in corruption

and anti-citizenship behavior (Pearce, 1997). Taken together, there is some empirical support for a positive link between co-CEO leadership and firm ESG outcomes.

### The Co-CEO Structure and ESG Performance in Family Versus Nonfamily Firms

An issue that has not yet received much attention in the literature is the role of the ownership context in shaping the functioning of the co-leadership structure and its impact on firm ESG outcomes. This gap persists despite the pivotal role of ownership in shaping the context of executive leadership (Fletcher & Käufer, 2003). Indeed, owners exercise significant influence over their firm's strategic goals (Cyert & March, 1963) and the discretion granted to executives (Hambrick & Finkelstein, 1987). Therefore, the firm's ownership structure may have significant implications for the dynamics and effectiveness of the co-CEO structure, including its impact on firm ESG performance. In line with this reasoning, recent studies have noted the paucity of knowledge in this domain and called for research on co-CEO leadership within the ownership context, particularly stressing the need for understanding how this leadership arrangement functions in family firms (Campopiano et al., 2020; Hasija et al., 2017; Krause et al., 2015). To address this gap, in this section, we explain in detail how co-CEO structures influence firm ESG outcomes in both family and nonfamily firms.

Family owners fundamentally differ from other types of owners due to the unique overlap between the family, the ownership, and the firm (Berrone et al., 2012; Tagiuri & Davis, 1996). The influence on and the involvement of the family in the firm gives significance to SEW concerns, which encompass "... nonfinancial aspects of the firm that meet the family's affective needs, such as identity, the ability to exercise family influence, and the perpetuation of the family dynasty" (Gómez-Mejía et al., 2007, p. 106). SEW is a multidimensional concept that generates two distinct and potentially contradictory priorities for a family firm: extended SEW and restricted SEW (Davila et al., 2022; Miller & Le Breton-Miller, 2014). Extended SEW includes priorities benefitting a broader range of stakeholders, such as assuring the firm's long-term growth and longevity and preserving its social image and reputation. In contrast, restricted SEW relates to priorities exclusively benefitting the family shareholders, such as familial altruism, nepotism, and the preservation of control, as well as the avoidance of risks associated with business renewal and innovation. These priorities tend to be narrow and short-term, potentially clashing with the interests of the nonfamily stakeholders.

The coexistence of extended and restricted SEW shapes the distinct ethical orientation of family firms, leading to simultaneously socially responsible and irresponsible behaviors (Cruz et al., 2014; Davila et al., 2022). More

specifically, whereas the pursuit of extended SEW priorities may align with the ESG objectives (Berrone et al., 2010; Cennamo et al., 2012; Miroshnychenko et al., 2021), the pursuit of restricted SEW priorities may clash with these goals and pose challenges for co-CEOs to implement them. For example, ESG initiatives aimed at equal treatment of employees and implementing more independent corporate governance structures may run counter to the nepotistic orientation of family firms and threaten the family's control over the business (Campopiano & De Massis, 2015; Chua et al., 2009; Federo et al., 2020; Lubatkin et al., 2005; Ponomareva & Ahlberg, 2016).

When confronted with the competing demands of family and nonfamily stakeholders, the "family comes first" principle is likely to prevail, prioritizing family interests over the interests of other stakeholders (Kellermanns et al., 2012). Being aware that some of the ESG initiatives may limit the pursuit of restricted SEW, co-CEOs – who, irrespective of their family affiliation, are likely to side with the family (Davis et al., 2010) – may be hesitant to allocate their attention and resources to such projects, fearing negative consequences, including potential dismissal. Consequently, the salience of restricted SEW contains the ability of the co-CEOs to meet the interests of the nonfamily stakeholders or even urges them to fulfill the interests of the family at the expense of the interests of the nonfamily stakeholders, which is ultimately reflected in reduced ESG outcomes.

The salience of different SEW concerns along with the financial priorities makes shared CEO leadership potentially more problematic in family firms compared to their nonfamily counterparts (D'Angelo et al., 2022). The presence of multiple and potentially conflicting objectives increases the cognitive diversity within the co-CEO constellation, requiring executives to allocate time and attention to coordination and reconciliation of the demands and the search for consensus between family and nonfamily stakeholders (Diaz-Moriana et al., 2022; Gómez-Mejía et al., 2011). The need to engage in such time-consuming interaction makes the decision-making process more complex, slowing down the pace of decision making, while shifting the focus of the co-CEO interactions onto the resolution of disputes rather than cooperation (Alvarez & Svejenova, 2005). Since co-CEO time is a finite resource, increasing the time spent on conflict resolution reduces the time dedicated to other domains of CEO activity, such as the needs of the nonfamily stakeholders, potentially relegating ESG initiatives to the secondary league.

In addition to the increased coordination costs associated with family-induced cognitive diversity within a co-CEO structure, family firms may face limitations in reaping the benefits of such a leadership arrangement, particularly in relation to ESG engagement. While the

adoption of a shared CEO leadership structure in nonfamily firms is often driven by strategic reasons, such as mergers, the presence of co-founders or an increasingly complex business environment (Alvarez & Svejenova, 2005), in family firms the motivation is more likely to be rooted in the family's needs, such as the preservation of family control and continuity (Campopiano et al., 2020). In such a context, the primary purpose of the shared leadership structure and the main reference point for the co-CEOs may thus be the preservation of the family's SEW rather than enhancing the quality of decision-making (Alvarez & Svejenova, 2005). The strong mandate to pursue family interests may overshadow the interests of the nonfamily stakeholders, restricting the range of perspectives considered and limiting the simultaneous pursuit of multiple goals. As a result, the potential benefits of shared leadership may be diminished. Taken together, family firms may experience additional costs associated with the presence of family-induced cognitive diversity in the co-CEO leadership structures, whereas their ability to fully capitalize on the advantages of such structures, particularly in terms of ESG engagement, may be constrained by the strong focus on preserving the family's SEW.

In contrast, co-CEO leadership arrangements are less problematic in nonfamily firms (D'Angelo et al., 2022). SEW is less likely to exist in nonfamily firms, and even if it were to exist, co-CEOs in such firms are unlikely to give preference to SEW objectives (Millet et al., 2014), thereby reducing the cognitive diversity within the co-CEO constellation. In this context, the executives need to allocate less time and attention to the family's objectives, reducing the complexity and the need for coordination. As a result, co-CEOs will have more time to address the needs of a wider range of stakeholders. Furthermore, since the primary mandate for appointing the co-CEOs in nonfamily firms is to manage organizational complexity and enhance decision making (Alvarez & Svejenova, 2005), executives in such a context will be more motivated to extend the range of their roles and, in doing so, enhance the firm's ESG performance. Taken together, nonfamily firms may derive greater benefits from improved information processing achieved through shared CEO leadership, thereby extending the range of roles fulfilled by the co-CEOs and ultimately enhancing ESG outcomes. Based on these arguments we propose the following hypotheses:

**H1a** Family firms led by co-CEOs are associated with lower ESG performance than those led by single CEOs.

**H1b** Nonfamily firms led by co-CEOs are associated with higher ESG performance than those led by single CEOs.

## Co-CEO Constellations and Family Firm ESG Outcomes: The Moderating Role of Co-CEO Family Affiliation

Previous studies have challenged the assumption of homogeneity among family firms, suggesting that “the variations in the behavior and performance among family firms may be as large as, if not larger than, the variations between family and nonfamily forms of organization” (Chua et al., 2012, pp. 1103–1104). In this section, we focus on the most salient attribute of co-CEOs in family firms, i.e., their affiliation with the controlling family (Binacci et al., 2016; Guidice et al., 2013), exploring its role in shaping the effect of co-CEO constellations on firm ESG performance. We posit that when both family and nonfamily CEOs are involved in the shared leadership structure, it amplifies family-induced cognitive diversity within the co-CEO constellation. This in turn triggers negative interpersonal dynamics among executives, thereby driving the adverse influence of such a structure for family firm ESG outcomes.

Co-CEOs operate in a challenging environment, characterized by uncertainty, ambiguity, and information overload (Finkelstein et al., 2009). Consequently, they face immense pressure when undertaking strategic decisions. To function effectively in such a context, interdependent shared leadership structures must establish shared norms, foster effective communication, and embrace constructive disagreement (Alvarez & Svejnova, 2005; Cox et al., 2003). When differentiating between family and nonfamily co-CEOs, there may be considerable variation in mandates, objectives (Meier & Schier, 2021), and power (Miller et al., 2014a, 2014b). Family executives undergo a long period of common socialization and are likely to have common backgrounds, experiences, and identification (Uhlener et al., 2015), which provide a building block for developing a common set of values and objectives that revolve around the pursuit of SEW (Dieleman & Koning, 2020). In contrast, nonfamily co-CEOs, who do not have the same affective endowment in the firm, may identify less with the family and thus may be less likely to prioritize the SEW objectives than their family counterparts (Miller et al., 2014a, 2014b). Hence, mixed co-CEO dyads are likely to be more heterogeneous in their objectives than co-CEO dyads involving only family members (Miller et al., 2014a, 2014b).

In addition to divergent objectives, family and nonfamily co-CEOs are likely to differ in the power they hold in their organization. Whereas the power of family co-CEOs emanates from both the business and family, nonfamily co-CEOs have “power in the business but not in the family” (Signori & Fassin, 2023, p. 197). Studies (e.g., Gómez-Mejía et al., 2010) suggest that family owners tend to discourage the delegation of authority to nonfamily members as this may undermine the family’s control over

the decision making, which in turn may lead to SEW loss. Thus, sharing power with the family co-CEOs may significantly restrict the discretion of the nonfamily co-CEOs and lead to a power imbalance within the shared leadership constellation (Miller et al., 2014a, 2014b).

Furthermore, the nature of the interpersonal relationships may differ among co-CEO constellations involving family co-CEOs only and those comprising both family and nonfamily co-CEOs, which also creates differences in their willingness to overcome differences and reconcile conflicts. Personal relationships among family co-CEOs are developed before professional relationships, and the former tend to exceed the latter in importance (Alvarez & Svejnova, 2005). Spending both work and social time together allows family executives to know each other and to develop strong bonds, characterized by affection, frequent communication, and trust (Long & Mathews, 2011). In contrast, relationships between the family and nonfamily co-CEOs are likely to be limited to the professional domain. Furthermore, as work-related conflicts may extend to family relationships, thereby damaging the latter, family co-CEOs are likely to occur losses not only in the professional but also in the personal domain. Hence, the presence and importance attributed to family relationships will motivate family executives to be more committed to their relationships and more willing to reconcile their differences and overcome disagreements than co-CEO dyads involving both family and nonfamily co-CEOs.

Given the differences in objectives, power, and the interpersonal relationships between family and nonfamily co-CEOs, mixed co-CEO constellations are more likely to face family-induced cognitive diversity to a greater degree. Research on top-management teams suggests that increased heterogeneity among executives will negatively influence team processes such as cooperation, cohesion, and coordination among the team members (Ndofor et al., 2015). Applying these insights to mixed co-CEO leadership teams provides a rationale for theorizing that family-induced cognitive diversity within the leadership constellation may increase the costs of coordination, decrease cohesion, and lead to interpersonal conflicts. Given the nature of the interpersonal relationships, the family co-CEOs will be less likely to reconcile conflicts with the nonfamily co-CEOs, making it more challenging to ensure effective communication and information exchange. Furthermore, as the discretion of the nonfamily co-CEOs is reduced, they may be less motivated to participate in the decision-making process (Patel & Cooper, 2014), further decreasing the ability of the co-CEO constellation to benefit from the integration of differences in knowledge and perspectives. This tension will reduce the information-processing capacity of the co-CEO constellation, making it more challenging for its members to dedicate time and

attention to balancing the needs of the different stakeholders, ultimately inhibiting ESG outcomes.

In contrast, more homogeneous co-CEO constellations consisting solely of family co-CEOs may not face the same challenges stemming from family-induced cognitive diversity. Given the greater homogeneity, potentially poor decision making by one co-CEO may hurt the interests of the other co-CEOs, making them more willing to collaborate. In such a context, team processes are likely to function more effectively while incurring lower coordination costs than those of mixed co-CEO constellations. Therefore, we expect a negative effect on family firm ESG performance for mixed co-CEO arrangements. We thus formulate the following hypothesis:

**H2** The negative effect of co-CEO constellations on ESG performance in family firms is driven by mixed co-CEO constellations, i.e., constellations with both family and non-family co-CEOs.

### **Family Co-CEO Constellations and ESG Outcomes: The Moderating Role of Family Generations**

Still, family-only co-CEO constellations may not necessarily be homogeneous, as they vary in their composition. Previous studies suggest that generational differences are a salient characteristic, distinguishing the various family executives involved in the firm (Pittino et al., 2020). Namely, a generational difference leads to increased differences in executives' objectives, attitudes, management approaches, and power aspirations (Sciascia et al., 2013). These differences may result in different reference frameworks, thus presenting an important source of family-induced cognitive diversity within family-only co-CEO constellations (Bauweraerts et al., 2022). Here we argue that family-induced cognitive diversity stemming from intergenerational differences among family co-CEOs leads to negative interpersonal dynamics within the shared leadership constellation, thereby hindering effective decision making and ultimately resulting in a negative effect of the co-CEO leadership structure on family firm ESG performance.

Why would this be the case? Family co-CEOs may vary in their agendas and the importance they attribute to the SEW objectives (Amore et al., 2025). Later generations of the family tend to be more concerned about the financial objectives, whereas the SEW concerns are more important for earlier generations (Gómez-Mejía et al., 2011; Sciascia et al., 2014). In addition, the different generations of family managers are likely to differ in their leadership styles, where later generations tend to prefer a more professional leadership style to the paternalistic one preferred by the earlier generations (Dyer, 1988). Given these inherent differences, the presence of multiple generations within the co-CEO

constellation is likely to increase cognitive diversity among family executives. Greater cognitive diversity within the leadership constellation may in turn augment conflicts and inhibit communication, while making it more difficult for the co-CEOs, pertaining to different family generations, to reach a consensus (Cater & Schwab, 2008). Such negative interpersonal dynamics may ultimately increase the costs of the shared leadership structure, resulting in a negative effect on ESG initiatives.

Furthermore, previous studies highlight that the intergenerational transition is a complex process that requires significant cognitive resources from the family executives (Filser et al., 2013). Due to their relative newness in the executive position, the incoming generation of co-CEOs may not have sufficient knowledge, autonomy, and authority, leaving the ultimate control over the strategic decision-making process to the incumbent co-CEOs, who in turn may be reluctant to transfer control over the business to the next generation (Cater & Justis, 2010; Davila et al., 2022). Thus, the attention of the incoming generation of co-CEOs may be directed toward acquiring knowledge about the firm and the executives' roles, as well as gradually taking over the business from the older generation. Hence, the ability of the co-CEOs to reap the benefits of shared leadership via complementary roles will be significantly limited. Given the focus on intergenerational succession, the co-CEO constellation is likely to limit the scope of issues addressed by the executives, ultimately reducing their ability to attend to the interests of the nonfamily stakeholders.

Conversely, co-CEO constellations with executives from the same family generation will face less family-induced cognitive diversity, which will be reflected in smoother team processes. Hence, such constellations will be able to allocate their attention to a wider range of issues and, in doing so, will be able to attend to the demands of a wider range of stakeholders. Based on this discussion, we formulate the following hypothesis:

**H3** The negative effect of co-CEO constellations on ESG levels in family firms is driven by co-CEO constellations with family co-CEOs from different generations.

### **Family Co-CEO Constellations and ESG Outcomes: The Moderating Role of the Power Gap**

Despite sharing the same formal title, the co-CEOs may vary widely in the power they hold in the organization, with one member of the shared leadership constellation possibly being "more equal than the other" (O'Toole et al., 2002, p. 75). Previous studies have suggested that moderate power differences within co-CEO constellations can serve as a coordinating mechanism, enhancing the decision making within the co-CEO constellation (Hong & Kim, 2022;

Krause et al., 2015; Matozza & D'Amico, 2020). Building on this notion, we argue that the presence of a board chair within the family co-CEO constellation mitigates the adverse impact of family-induced cognitive diversity, while enabling the benefits of such a structure for the ESG outcomes.

Why would this be the case? The presence of the board chair within the co-CEO structure introduces a formal power differentiation between the chair and non-chair co-CEOs. This hierarchy within the shared leadership arrangement improves coordination, facilitating a more centralized decision-making structure (Krause et al., 2015). It also helps to clarify the division of roles and responsibilities within the co-CEO constellation and to establish a clear line of communication for the executives, reducing interpersonal rivalry and conflicts while enhancing decision-making efficiency by reducing the need for time-consuming consensus-seeking processes (Denis et al., 2001). As a result, such a constellation mitigates the costs associated with family-induced cognitive diversity. While integrating diverse information, the differences in perspectives and priorities become less burdensome, and the co-CEO constellation can leverage the enhanced information-processing capacity of multiple co-CEOs to more effective decision making (Matozza & D'Amico, 2020).

Conversely, non-chair co-CEO constellations, characterized by a diffuse power structure where coordination by fiat is not possible, face challenges in achieving coordination and cooperation within the shared leadership structure (Denis et al., 2001). As coordination and cooperation are hindered within such a co-CEO constellation, the potential benefits of CEO role complementarity are compromised, ultimately reducing the ability of the co-CEOs to engage in ESG initiatives. Therefore, we posit that the presence of a power gap within the family co-CEO constellation alleviates the adverse impact of family-induced cognitive diversity, while preserving the benefits of such a structure for firm ESG outcomes, ultimately resulting in a positive effect of the family co-CEO constellation on ESG outcomes.

**H4** Family firms led by family co-CEO constellations that include board chair have an overall positive effect on ESG performance.

## Method

### Sample

We test the validity of our hypotheses on a sample of Italian industrial firms listed on the Milan Stock Exchange for the period of 2003–2020. As firms may change their listing status, they may enter or drop out of our sample during this period. Thus, a firm is part of the sample only for the years

it was listed on the stock exchange. We started with all listed Italian firms. We then excluded companies in the financial and insurance sectors. Next, we combined the ESG data with the financial control variables provided by Worldscope. Our study employs ESG data provided by Refinitiv Eikon (previously Thomson Reuters ASSET4). Refinitiv Eikon is recognized as one of the largest ESG rating agencies (Halbritter & Dorfleitner, 2015), and its data are widely used in the empirical research (e.g., Arena et al., 2018; Reber et al., 2022; Shaukat et al., 2016). Furthermore, Refinitiv provides extensive coverage of measures of general business ethics (Dorfleitner et al., 2015). It is worth noting that although Eikon Refinitiv has been offering ESG data since 2002, only a limited numbers of Italian listed companies have such data for the entire period, most of which are nonfamily companies belonging to the energy and utilities industries.

To identify a *family firm*, we followed Campopiano and De Massis (2015) in adopting the following criteria: The family shareholder must be the largest shareholder holding at least a 25% equity stake, and at least one member of the controlling family must sit on the board of directors (Cambrea et al., 2022; Nekhili et al., 2018). The 25% threshold was adopted due to the highly concentrated ownership of Italian firms (Amore et al., 2011). In contrast to other institutional contexts in which a firm may be controlled via a lower percentage of the share capital, in a concentrated financial market such as Italy, where a firm is typically owned by a limited number of shareholders, a 25% stake is required to obtain control over a firm (Miller et al., 2014a, 2014b; Minichilli et al., 2016).

Finally, we merged the ESG data and financial variables with a unique hand-collected dataset containing information on board members' demographic and personal characteristics. The data were collected manually from the annual reports on corporate governance of each firm, which were available from the official corporate websites and the website of the Milan Stock Exchange.

After this matching, the total number of firm-year observations was reduced to 501, corresponding to 50 unique family firms and 29 nonfamily firms. Table 1 presents the distribution across nine industries according to the industry classification of the Italian Stock Exchange. The limited number of firm-year observations is due to the availability of the ESG data, but the number is in line with similar previous empirical studies (Arena et al., 2018; Platonova et al., 2018; Shaukat et al., 2016).

### Variables

The regression analysis employs the ESG score as the dependent variable. The ESG score is a comprehensive score derived from 630 different metrics, weighted and grouped into three sub-criteria: environmental (resource

**Table 1** Sample distribution across Borsa Italiana Industry Classification

Industry description	Family firms	Percentage (%)	Nonfamily firms	Percentage (%)
Oil & gas	16	3.19	35	6.99
Chemicals & basic materials	2	0.40	0	0.00
Industrial	68	13.57	51	10.18
Consumer services	73	14.57	12	2.40
Health care	11	2.20	3	0.60
Consumer goods	57	11.38	18	3.59
Telecommunications	0	0.00	22	4.39
Utilities	7	1.40	99	19.76
Technology	15	2.99	12	2.40
Total	249	49.70	252	50.30

use, emissions, innovation), social (workforce, human rights, community, product responsibility), and corporate governance (management, shareholders, CSR strategy) pillars (Refinitiv, 2022). This score, capturing information from company disclosures, is designed to range from 0 to 100, where a value above 75 indicates a high degree of transparency in reporting material ESG data. Conversely, scores lower than 25 suggest poor relative ESG performance and a lack of transparency in reporting material ESG data publicly.

To test the validity of the hypotheses, the empirical regressions employ three independent variables: *co-CEOs*, *Family co-CEOs*, and *Mixed co-CEOs*, and two moderating variables: *Family co-CEOs different generations* and *Family co-CEOs & CEO-Chair*. *Co-CEOs* is a dummy variable that equals one if the firm has more than one CEO, and zero otherwise (Arena et al., 2011). Further, *Family co-CEOs* is a dummy variable that equals one if the firm has more than one CEO and all of them are family members, and zero otherwise. Additionally, *Mixed co-CEOs* is a dummy variable that equals one if the firm has more than one CEO and they are family members and nonfamily members, and zero otherwise. Note that our sample does not include any family firms led exclusively by nonfamily members.

Finally, *Family co-CEOs different generations* is a dummy variable that equals one for firms led by family CEOs only and these being from different generations, and zero otherwise. We define a generational difference as an age difference of more than 20 years. *Family co-CEOs & CEO-Chair* is a dummy variable that equals one if the firm is led by family CEOs only and one of them is the chair of the board, and zero otherwise.

Following extant studies on the determinants of ESG performance (Beji et al., 2021; Homroy & Slechten, 2019; Shaukat et al., 2016), we use the following financial variables and board characteristics as control variables in all the regressions. *ROA* is computed as operating income divided by total assets (Beji et al., 2021). *Firm size* is the natural logarithm of total sales (Shaukat et al., 2016). *Debt*

is long-term debt over total assets (Benlemlih, 2017). *Cash holdings* is the ratio of cash and cash equivalents to total assets (Homroy & Slechten, 2019). *Capex* is computed as capital expenditures divided by total assets (ibid). *R&D* is the ratio of research and development expenditure to sales (Arena et al., 2018). If a firm did not report any R&D expenditure, this variable was set to zero. *Firm age* is the logarithm of the number of firm years, computed as the difference between the year of the observation and the firm's founding year (Cambrea et al., 2023). *Board size* is measured as the number of members of the board of directors (ibid). *Independent directors* is computed as the ratio of independent directors to board size (Shaukat et al., 2016). *Female directors* is the ratio of women directors to board size (ibid).

## Data

Table 2 presents descriptive statistics for the subsamples of family and nonfamily firm-year observations. Table 3 presents the correlations between the dependent and independent variables for the entire sample of firm-year observations including family and nonfamily firms.

The results show that 20.1% of all firms in our sample have a co-CEO constellation. Distinguishing between family and nonfamily firms, we find that 17.7% of family firms have a co-CEO structure, whereas only 2.4% of nonfamily firms have this structure. In line with previous studies (D'Angelo et al., 2022; Miller et al., 2014a, 2014b), our findings indicate a greater prevalence of the co-CEO structure among the family firms. Focusing on co-CEO structures in the family firms, 8.5% consist of family members only, while a mixed co-CEO structure is present in 9.2%. Finally, 6.8% of the family firms have different generations at the co-CEO level, and 2.4% have one of the CEOs who is also the chair of the board.

**Table 2** Descriptive statistics for the subsamples of family and nonfamily firm-year observations

Variables	Family firms		Nonfamily firms		Difference	<i>t</i> -statistic
	Mean	SD	Mean	SD		
ESG score	0.507	0.172	0.641	0.186	- 0.133	- 8.33
Social pillar score	0.563	0.209	0.673	0.202	- 0.110	- 5.98
Co-CEOs	0.177	0.382	0.024	0.153	0.153	5.89
Family Co-CEOs	0.085	0.272	0.000	0.000	0.085	4.68
Mixed Co-CEOs	0.092	0.290	0.000	0.000	0.092	5.05
Family Co-CEOs different generations	0.068	0.253	0.000	0.000	0.068	4.29
Family Co-CEOs & CEO-Chair	0.024	0.154	0.000	0.000	0.024	2.49
ROA	0.049	0.063	0.045	0.149	0.004	0.40
Firm size	21.267	0.990	22.250	1.702	- 0.983	- 7.89
Debt	0.237	0.151	0.295	0.154	- 0.058	- 4.21
Cash holdings	0.139	0.081	0.085	0.053	0.054	8.82
Capex	4.035	3.178	4.348	3.352	- 0.313	- 1.07
R&D	0.614	1.744	1.455	3.499	- 0.841	- 3.40
Firm age	36.337	26.671	35.071	36.753	1.266	0.44
Board size	11.863	2.964	10.655	2.899	1.208	4.61
Independent directors	0.439	0.130	0.599	0.163	- 0.160	- 12.11
Female directors	0.247	0.144	0.213	0.179	0.034	2.36
Firm-year observations	249		252			

## Empirical Results

To examine the impact of co-CEOs on the ESG score, we employ ordinary least squares (OLS) regressions (Amore et al., 2019; Crifo et al., 2019). All independent variables are lagged by one year to avoid simultaneity problems and to mitigate potential endogeneity issues. To capture the heterogeneity across different industrial sectors and years, we include industry and year fixed effects in all the regressions.

Regression 1 employs the variable *co-CEOs* to test the effect of co-CEO constellations on the ESG score for the whole sample of family and nonfamily firms. The results suggest that the presence of co-CEOs is negatively related to the ESG score. Specifically, the coefficient on *co-CEOs* is negative and statistically significant ( $\beta = -0.047$ ,  $p < 0.10$ ). At first glance, it looks like we observe the opposite of the positive link between the presence of a co-CEO structure and firm ESG performance, as found in prior research on nonfamily firms (Hasija et al., 2017). However, a closer look at our sample dominated by family firms reveals the need to distinguish between family and nonfamily firms. We thus re-run the regression on the respective subsamples. Regressions 2 and 3 suggest that for nonfamily firms, the coefficient on *co-CEOs* is positive and statistically significant ( $\beta = 0.049$ ,  $p < 0.10$ ), whereas the coefficient is negative and statistically significant ( $\beta = -0.086$ ,  $p < 0.01$ ) for the family firm subsample. Consequently, there is support for both H1a and H1b. In line with Hasija et al. (2017), the presence of co-CEOs is positively related to ESG performance for

nonfamily firms. However, this relationship turns negative for family firms (see Regression 3).

Importantly, Regression 4 suggests that our results are robust to the inclusion of the interaction between *co-CEOs* and the family firm dummy. A graphical representation of these findings (Fig. 1) reveals that co-CEOs are associated with worse ESG performance in family firms when compared to nonfamily firms. These findings also suggest that the overall negative relationship between the co-CEO structure and ESG performance we observe for the whole sample (Regression 1) can be attributed to the dominance of family firms in our sample.

Regression 5 reports the effect of *Family co-CEOs* and *Mixed co-CEOs* on the ESG score. The presence of co-CEO constellations pertaining to executives who are all members of the controlling family has no effect on the ESG score. Specifically, the coefficient on *Family co-CEOs* is negative but not statistically significant ( $\beta = -0.004$ ,  $p > 0.1$ ). Thus, we do not find evidence that family-only co-CEO constellations are related to lower or higher levels of ESG performance when compared to family firms led by a single CEO. Conversely, the coefficient on *Mixed co-CEOs* is negative and statistically significant ( $\beta = -0.162$ ,  $p < 0.01$ ). Consistent with H2, these findings indicate that the presence of family and nonfamily CEOs causes the relationship between a shared leadership structure and ESG performance to be negative. This finding corroborates Miller et al., and and's (2014a, 2014b) thesis that mixed co-CEO constellations are problematic compared to family-only co-CEO structures when it comes to firm ethical decision making.

**Table 3** Correlation matrix

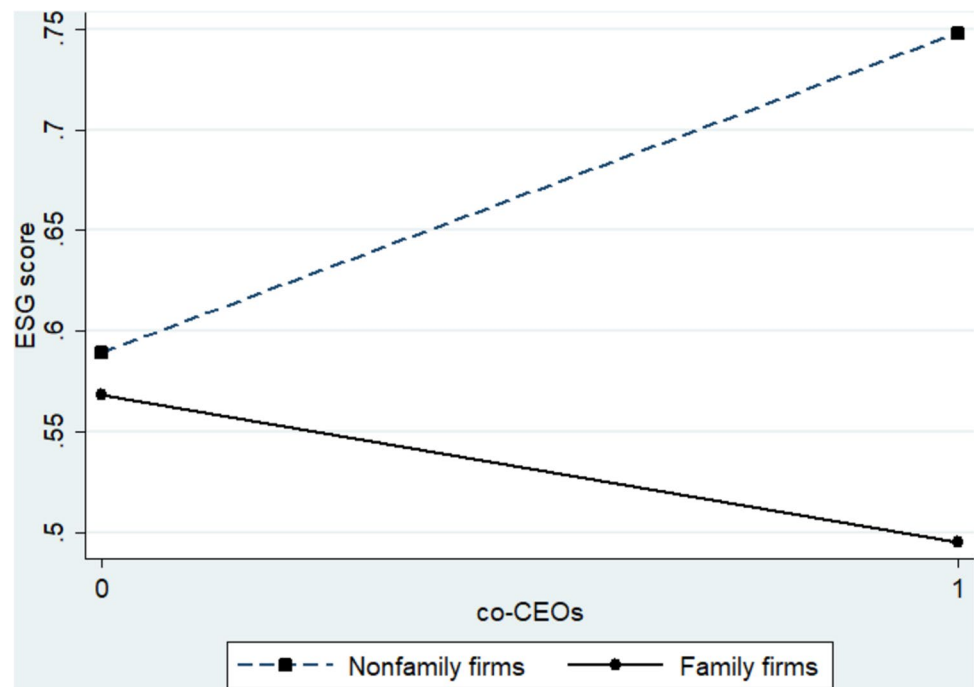
Variable	1	2	3	4	5	6	7	8	9
1 ESG score	1								
2 Social pillar score	0.907 <sup>***</sup>	1							
3 Co-CEOs	-0.136 <sup>**</sup>	-0.100 <sup>*</sup>	1						
4 Family Co-CEOs	-0.0662	-0.0499	0.612 <sup>***</sup>	1					
5 Mixed Co-CEOs	-0.208 <sup>***</sup>	-0.156 <sup>***</sup>	0.659 <sup>***</sup>	0.659 <sup>***</sup>	1				
6 Family Co-CEOs different generations	-0.0885 <sup>*</sup>	-0.0803	0.563 <sup>***</sup>	0.919 <sup>***</sup>	-0.0447	1			
7 Family Co-CEOs & CEO-Chair	0.0243	0.00837	0.331 <sup>***</sup>	0.540 <sup>***</sup>	-0.0242	0.283 <sup>***</sup>	1		
8 ROA	-0.0546	-0.00707	0.0277	0.0177	0.0244	0.0163	0.0304	1	
9 Firm size	0.494 <sup>***</sup>	0.315 <sup>***</sup>	-0.117 <sup>**</sup>	-0.0440	-0.169 <sup>***</sup>	-0.0178	-0.0830	-0.0895 <sup>*</sup>	1
10 Debt	0.195 <sup>***</sup>	0.126 <sup>**</sup>	-0.223 <sup>***</sup>	-0.106 <sup>*</sup>	-0.193 <sup>***</sup>	-0.0885 <sup>*</sup>	-0.114 <sup>*</sup>	-0.152 <sup>***</sup>	0.0408
11 Cash holdings	-0.0841	-0.0152	0.150 <sup>***</sup>	0.0405	0.201 <sup>***</sup>	0.0331	0.0706	0.116 <sup>**</sup>	-0.148 <sup>***</sup>
12 Capex	0.212 <sup>***</sup>	0.217 <sup>***</sup>	-0.0473	-0.0286	-0.0554	-0.0216	-0.0457	0.0211	0.00728
13 R&D	0.0287	0.0148	-0.108 <sup>*</sup>	-0.0756	-0.0622	-0.0695	-0.0408	-0.00128	0.173 <sup>***</sup>
14 Firm age	0.146 <sup>**</sup>	0.140 <sup>**</sup>	0.128 <sup>**</sup>	0.0718	0.0795	0.0536	0.0351	-0.0794	0.221 <sup>***</sup>
15 Board size	0.110 <sup>*</sup>	0.0723	-0.00173	0.0167	0.0259	0.0430	-0.0831	-0.0205	0.166 <sup>***</sup>
16 Independent directors	0.470 <sup>***</sup>	0.369 <sup>***</sup>	-0.202 <sup>***</sup>	-0.124 <sup>**</sup>	-0.169 <sup>***</sup>	-0.105 <sup>*</sup>	-0.110 <sup>*</sup>	0.0544	0.401 <sup>***</sup>
17 Female directors	0.183 <sup>***</sup>	0.292 <sup>***</sup>	0.0290	0.0173	0.0706	-0.00978	0.0824	0.0432	-0.344 <sup>***</sup>

1 ESG score	1								
2 Social pillar score	-0.333 <sup>***</sup>	1							
3 Co-CEOs	0.338 <sup>***</sup>	-0.235 <sup>***</sup>	1						
4 Family Co-CEOs	-0.159 <sup>***</sup>	0.0261	0.0261	1					
5 Mixed Co-CEOs	-0.299 <sup>***</sup>	0.187 <sup>***</sup>	0.187 <sup>***</sup>	-0.172 <sup>***</sup>	1				
6 Family Co-CEOs different generations	0.0848	0.00170	0.00170	-0.0861	0.467 <sup>***</sup>	1			
7 Family Co-CEOs & CEO-Chair	0.0350	-0.205 <sup>***</sup>	-0.205 <sup>***</sup>	0.105 <sup>*</sup>	0.115 <sup>*</sup>	0.323 <sup>***</sup>	1		
8 ROA	-0.1118 <sup>**</sup>	0.284 <sup>***</sup>	0.284 <sup>***</sup>	-0.138 <sup>**</sup>	-0.0213	0.110 <sup>*</sup>	-0.121 <sup>**</sup>	1	
9 Firm size									0.101 <sup>*</sup>
10 Debt									
11 Cash holdings									
12 Capex									
13 R&D									
14 Firm age									
15 Board size									
16 Independent directors									
17 Female directors									

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$   
 n = 501

**Fig. 1** Co-CEOs and ESG scores in nonfamily firms and family firms



Regression 6 tests for the presence of the moderating effects of generational differences and a power gap on the relationship between a family co-CEO structure and ESG outcomes. The coefficient on *Family co-CEOs different generations* is negative and statistically significant ( $\beta = -0.090$ ,  $p < 0.01$ ), providing support for H3. This finding suggests that there is a negative relationship between the presence of a family co-CEO structure and ESG outcomes when the family co-CEOs belong to different generations compared to co-CEOs that pertain to the same generation. In line with Sciascia et al. (2013), our results suggest that the costs of intergenerational diversity within co-CEO leadership constellations outweigh the benefits.

In contrast, *Family co-CEOs & CEO-Chair* has a positive and statistically significant coefficient ( $\beta = 0.310$ ,  $p < 0.01$ ), indicating a positive effect on ESG outcomes of co-CEO structures where one of the executives is the chair of the board of directors. Hence, H4 is supported. Our results corroborate earlier findings by Krause et al. (2015) and Matozza and D'Amico (2020), indicating that shared leadership bears benefits when it is counterbalanced by a hierarchy among co-CEOs.

### Robustness Tests

To ensure the robustness of our findings, we conducted some additional analysis consisting of re-estimating the regressions in Table 4 employing a different ESG performance measure and two alternative definitions of family firms. We utilized the Social Pillar score as an alternative measure of our dependent variable. We made this choice because the

aspects considered in the Social Pillar score closely align with the broader concept of general business ethics, as highlighted in prior research (Dorfleitner et al., 2015). The results from this analysis, presented in Table 5, generally confirm the conclusions drawn from our main analysis, with the only difference being that the coefficient on *co-CEOs* is no longer statistically significant in the nonfamily firm subsample.

To further confirm the robustness of our findings, we conducted a sensitivity analysis using two alternative definitions of family firms based on different ownership stake thresholds – specifically the 20% and 30% ownership thresholds. While we do not tabulate the empirical results in this manuscript for the sake of brevity, it is important to note that our main findings remain consistent when using these alternative definitions of family firms.

### Discussion

We undertook a study to further our understanding of the role of family relationships in shaping the effects of shared CEO leadership on firms' ESG performance. Building on the socioemotional wealth (SEW) perspective (Gómez-Mejía et al., 2007), we argue that because of the salience of SEW concerns, a co-CEO leadership structure functions differently in family firms, creating unique interpersonal tensions that lead to inhibited ESG outcomes. Building on the Hasija et al. (2017) study, which reports a positive effect of co-CEO structures on firm ESG outcomes, we extend the understanding of shared leadership

**Table 4** Relationship between co-CEOs and ESG score

Variables	(1) Whole sample	(2) Nonfamily firms	(3) Family firms	(4) Whole sample	(5) Family firms	(6) Family firms
Co-CEOs	- 0.047* (0.069)	0.049* (0.086)	- 0.086*** (0.005)	0.159*** (0.000)		
Family firms				- 0.021 (0.185)		
Co-CEOs*Family firms				- 0.232*** (0.000)		
Family Co-CEOs					- 0.004 (0.906)	
Mixed Co-CEOs					- 0.162*** (0.000)	
Family Co-CEOs same generations						- 0.110 (0.268)
Family Co-CEOs different generations						- 0.090*** (0.002)
Family Co-CEOs & CEO-Chair						0.310*** (0.001)
ROA	- 0.016 (0.567)	- 0.034 (0.314)	- 0.060 (0.725)	- 0.027 (0.343)	- 0.121 (0.422)	0.152 (0.254)
Firm size	0.053*** (0.000)	0.044*** (0.000)	0.047*** (0.000)	0.054*** (0.000)	0.038*** (0.002)	0.054*** (0.000)
Debt	0.183*** (0.000)	0.097 (0.197)	0.154** (0.030)	0.158*** (0.000)	0.159** (0.026)	0.080 (0.301)
Cash holdings	- 0.056 (0.563)	- 0.466*** (0.003)	0.025 (0.853)	- 0.006 (0.954)	0.085 (0.515)	- 0.167 (0.274)
Capex	0.006*** (0.006)	0.003 (0.280)	0.006 (0.102)	0.006*** (0.007)	0.006* (0.074)	0.004 (0.242)
R&D	- 0.001 (0.622)	- 0.008** (0.032)	- 0.003 (0.693)	- 0.003 (0.332)	- 0.004 (0.631)	0.003 (0.721)
Firm age	0.005 (0.541)	0.042*** (0.002)	- 0.015 (0.290)	0.007 (0.470)	- 0.019 (0.150)	- 0.025* (0.062)
Board size	0.005** (0.039)	- 0.000 (0.979)	0.015*** (0.000)	0.005** (0.017)	0.016*** (0.000)	0.015*** (0.000)
Independent directors	0.100** (0.013)	- 0.006 (0.911)	0.027 (0.684)	0.069* (0.091)	- 0.001 (0.987)	0.136* (0.072)
Female directors	0.149* (0.052)	0.145 (0.156)	0.087 (0.522)	0.113 (0.136)	- 0.013 (0.927)	0.083 (0.546)
Constant	- 0.891*** (0.000)	- 0.577*** (0.003)	- 0.896*** (0.001)	- 0.925*** (0.000)	- 0.678** (0.012)	- 0.874*** (0.002)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.633	0.748	0.551	0.649	0.580	0.546
Observations	501	252	249	501	249	249

Robust  $p$ -values in parentheses \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

by considering firm ownership as an important contextual factor that shapes the costs and benefits of a shared leadership structure. Our empirical analysis corroborates Hasija et al.'s (2017) findings, indicating that the presence of

co-CEOs is associated with higher ESG performance for nonfamily firms, and subsequently nuances it further, suggesting that this relationship is negative for family firms.

**Table 5** Relationship between co-CEOs and social pillar score

Variables	(1) Whole sample	(2) Nonfamily firms	(3) Family firms	(4) Whole sample	(5) Family firms	(6) Family firms
Co-CEOs	- 0.064** (0.030)	0.021 (0.641)	- 0.120*** (0.001)	0.137*** (0.004)		
Family firms				- 0.029 (0.149)		
Co-CEOs*Family firms				- 0.226*** (0.000)		
Family Co-CEOs					- 0.033 (0.402)	
Mixed Co-CEOS					- 0.200*** (0.000)	
Family Co-CEOs same generations						0.089 (0.391)
Family Co-CEOs different generations						- 0.081** (0.032)
Family Co-CEOs & CEO-Chair						0.161* (0.087)
ROA	0.026 (0.415)	- 0.025 (0.603)	- 0.030 (0.871)	0.013 (0.692)	- 0.093 (0.577)	- 0.093 (0.593)
Firm size	0.042*** (0.000)	0.036*** (0.000)	0.027* (0.057)	0.043*** (0.000)	0.017 (0.219)	0.030** (0.032)
Debt	0.176*** (0.001)	0.109 (0.216)	0.075 (0.370)	0.135*** (0.009)	0.078 (0.355)	0.131 (0.122)
Cash holdings	- 0.121 (0.306)	- 0.741*** (0.000)	- 0.009 (0.951)	- 0.049 (0.683)	0.057 (0.706)	0.076 (0.642)
Capex	0.009*** (0.000)	0.004 (0.205)	0.010** (0.014)	0.009*** (0.001)	0.010*** (0.008)	0.008** (0.039)
R&D	- 0.002 (0.509)	- 0.010*** (0.007)	- 0.000 (0.991)	- 0.004 (0.279)	- 0.001 (0.944)	0.007 (0.528)
Firm age	0.009 (0.393)	0.049*** (0.001)	- 0.010 (0.585)	0.009 (0.421)	- 0.015 (0.391)	- 0.022 (0.241)
Board size	0.000 (0.917)	- 0.010*** (0.009)	0.018*** (0.000)	0.002 (0.589)	0.019*** (0.000)	0.019*** (0.000)
Independent directors	0.057 (0.287)	- 0.018 (0.789)	- 0.006 (0.942)	0.020 (0.720)	- 0.035 (0.718)	0.124 (0.139)
Female directors	0.106 (0.277)	0.032 (0.805)	0.071 (0.670)	0.077 (0.432)	- 0.039 (0.821)	0.140 (0.407)
Constant	- 0.625*** (0.000)	- 0.364* (0.069)	- 0.493 (0.107)	- 0.653*** (0.000)	- 0.267 (0.382)	- 0.560* (0.070)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.542	0.676	0.587	0.563	0.608	0.576
Observations	501	252	249	501	249	249

In line with research on heterogeneity among family firms (Daspit et al., 2021; Marques et al., 2014; Miroshnychenko et al., 2021), we further show that this negative relationship is not universal across co-CEO constellations but emerges with the presence of family-induced cognitive

diversity. Such diversity can be manifested through: (1) the presence of family and nonfamily co-CEOs in the leadership structure, and (2) the involvement of different generations of family co-CEOs in co-CEO structures containing only family co-CEOs. These findings are in line with prior studies

suggesting that mixed co-CEO structures are problematic in a family firm context (D'Angelo et al., 2022; Miller et al., 2014a, 2014b) and those that draw attention to the potentially negative effects of intergenerational diversity among family executives (Sciascia et al., 2013). Importantly, our findings corroborate and further extend earlier evidence based on nonfamily firms (Krause et al., 2015; Matozza & D'Amico, 2020), revealing that a family co-CEO structure can positively influence ESG outcomes, but only when it is counterbalanced by a power gap among the co-CEOs.

## Theoretical Implications

The theoretical contribution of our study is threefold. First, we contribute to corporate governance research by examining the contextual determinants that shape the dynamics of co-CEO structures and exploring their effect on ESG performance. Whereas there is a considerable literature on the implications of a shared leadership structure for firm financial performance (cf. Arena et al., 2011; Krause et al., 2015), there is as yet little research on its effects on nonfinancial outcomes. To the best of our knowledge, there is only one study (Hasija et al., 2017) that has examined the impact of co-CEO structures on firm ESG outcomes. Our study supports Hasija et al. (2017), who report a significant, positive influence of co-CEO structures on firm ESG outcomes and show for the first time that this positive effect may be exclusive to nonfamily firms. Furthermore, in line with the emerging research on shared leadership in family firms (D'Angelo et al., 2022; Miller et al., 2014a, 2014b), we show that family firms face unique challenges when adopting a co-CEO leadership structure and, by doing so, highlight the role of the ownership context as a critical boundary condition shaping the dynamics within the shared leadership and its effectiveness in the ESG performance domain.

Furthermore, our study responds to previous literature examining power gaps within co-CEO structures, further evidencing their benefits for the functioning of such structures. Whereas prior studies have interpreted the positive effect of power gaps among co-CEOs as support for the unity of command perspective vis-à-vis shared leadership, this dichotomous view falls short of explaining why the presence of extreme power gaps among co-CEOs eventually leads to inhibited decision-making and a negative effect on firm outcomes (Krause et al., 2015; Matozza & D'Amico, 2020). In reconciliation of the debate between the proponents of the shared leadership perspective and those of the unity of command perspective (Krause et al., 2015), we suggest an alternative perspective, arguing that the unity of command and shared leadership structure may not be the opposite sides of the continuum – an assumption that has dominated the extant research on co-CEO

structures – but in certain contexts are complementary solutions. Our findings suggest that, in the contexts characterized by a greater need for coordination among the co-CEOs, combining the elements of each of the two arrangements – shared leadership and the unity of command – may constitute an effective strategy to improve firm ESG outcomes.

Second, our study extends the literature on business ethics by delving into the role of family business in society and its ethical decision making. While research on ESG falls under the broader theme of business ethics (Hockerts & Searcy, 2023; Ma et al., 2012), recent studies have highlighted the scarcity of studies focusing on the ethical conduct of family firms toward their stakeholders (Eddleston & Mulki, 2021). Our research contributes to a nascent but rapidly growing conversation on family business ethics (Dielman & Koning, 2020; Jiang & Min, 2023; Vazquez, 2018) by further nuancing our understanding of the mechanisms shaping the distinct ethical choices of family firms. Specifically, our study corroborates the notion of the dominance of family interests over the interests of nonfamily stakeholders and suggests that reconciling these conflicting interests can be potentially costly for a firm. Thus, if a family firm is aiming at improving its ESG engagement via the adoption of a co-CEO leadership structure, the governance arrangements and the presence of family-induced cognitive diversity need to be taken into consideration. Particularly, we spell out the importance of the power gap among the co-CEOs as a coordination mechanism and a tool for the conflict resolution that can bring about an overall positive effect on ESG performance.

Finally, our study contributes to family business research by providing empirical support and extending the theoretical development of the SEW perspective (Gómez-Mejía et al., 2011, 2019). In line with Bauweraerts et al. (2022) we underscore the significance of SEW priorities as a key driver of family-induced cognitive diversity, highlighting its implications for firm decision-making. In doing so, we advance the theoretical understanding of SEW in family firms by shedding light on the costs stemming from the clash between the SEW objectives and the interests of the nonfamily stakeholders. Specifically, we demonstrate how this misalignment can impede executive decision making and ultimately hinder family firms' ability to fully leverage the advantages of shared leadership structures. By recognizing the diverse socioemotional perspectives brought about by different members within the co-CEO leadership structure, we advance the understanding of how SEW considerations intersect with firm-level ESG engagement, responding to the call for additional research on the contextual determinants of this relationship (Davila et al., 2022; Diaz-Moriana et al., 2022; Madison et al., 2016; Swab et al., 2020).

## Implications for Practice

Despite being a rather common practice in family firms, the current research provides little guidance on how such structures best operate, especially when concerning ethical decision making. Our study offers important insights for family owners and family firm stakeholders into how to design a co-CEO structure for family firms intent on pursuing ESG objectives. Specifically, our empirical analysis shows that the adoption of shared leadership can enhance ESG performance in nonfamily firms, whereas its adoption by family firms may pose challenges unless such a structure is counterbalanced by the presence of a power gap among the co-CEOs. It is crucial for firms and investors to be aware of the presence of family-induced cognitive diversity within the co-CEO constellation and to address the tensions arising between the family and nonfamily executives as well as among family executives from different generations. Effective communication and a positive climate within the constellation are essential to ensure that the costs of coordination do not outweigh the benefits of shared leadership for firm ESG performance. Family firms should pay special attention to managing these dynamics to leverage the advantages of having multiple co-CEOs and achieve enhanced ESG performance. Introducing a power gap among the co-CEOs, such as by having a board chair among the co-CEOs, can serve as a valuable tool for managing tensions and preventing negative interpersonal dynamics within the shared leadership structure. This enables family firms to benefit fully from the presence of multiple co-CEOs and their potential contribution to enhancing ESG performance. By addressing the challenges associated with family-induced diversity and establishing a power gap, family firms can effectively navigate the complexities of shared leadership and strive for superior ESG outcomes.

## Limitations

Our study is not without limitations, and such limitations provide opportunities for future research. First, as we are unable to directly capture directly the interpersonal dynamics within the co-CEO constellation, the interpretation of our findings is based on the premise in the TMT diversity literature that the presence of cognitive diversity poses additional costs for executive decision making (Ponomareva et al., 2022). Similarly, SEW objectives is a latent construct that is measured indirectly by comparing family and nonfamily firms as well as the variations among family firms. While recent evidence suggests that archival

measures could serve as plausible proxies for SEW objectives when survey data is difficult to obtain (Gómez-Mejía & Herrero, 2022), direct measures of both SEW and team processes within the co-CEO constellation (cf. Simsek et al., 2005) could be useful to validate our results. Second, we do not take into account in our analysis the reasons behind the adoption of a co-CEO structure. Yet, firms may adopt such a structure for specific reasons, such as an intergenerational transition, professionalization, and expansion (Alvarez & Svejnova, 2005). The endogenous nature of shared leadership may cause a selection bias in our analysis, thus our results need to be interpreted with caution. Future research should overcome this limitation by collecting data to understand the reasons driving the decision by family firms to adopt a shared leadership structure. Furthermore, other diversity characteristics, such as gender, culture, and tenure, may affect the relationship dynamics among co-CEOs one at a time but also jointly with other facets of demographic diversity, and thus they may have implications for the dynamics within the co-CEO constellation. Future research could extend our study by including the demographic attributes of the members of co-CEO constellations and estimating their joint influence on the interactions within co-CEO structures.

## Conclusion

Despite being a natural environment for co-CEO constellations, the presence of such a structure in family firms does not automatically ensure its success, particularly regarding ESG performance. Our study thus highlights the need to consider carefully the trade-offs involved when family firms adopt shared leadership structures. By shedding light on the relationship dynamics among co-CEOs and their implications for ESG outcomes, we contribute to advancing the understanding of family firms and their functioning. Still, this is only a first step toward understanding the practice of shared leadership – more specifically co-CEO structures – in the unique context of family firms. While our findings provide valuable insights into the role of family relationships and socioemotional wealth considerations in shaping the effects of co-CEO leadership on firms' ESG performance, there is much more to uncover. We acknowledge that co-CEO structures in family firms are widespread, highlighting the need for further research in this area. There are still many unanswered questions regarding the dynamics, challenges, and outcomes associated with co-CEO arrangements within family firms. Future studies may delve deeper into these aspects and provide a more comprehensive understanding of the practice of shared leadership in the family firm context.

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**Data availability** Research data cannot be shared openly.

## Declarations

**Conflict of interest** The authors have no relevant financial or nonfinancial interests to disclose. The authors have no conflicts of interest to declare that are relevant to the content of this article. All authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or nonfinancial interest in the subject matter or materials discussed in this manuscript. The authors have no financial or proprietary interests in any material discussed in this article.

**Ethical Approval** This is an observational study. No ethical approval is required.

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