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# Agent-Agent Conflict: Outside Directors and Co-CEOs in Family Firms

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## Abstract

This study explains why outside directors in family firms are especially beneficial when co-CEOs are at the helm. Extending agency theory beyond the principal-agent and the principal-principal conflicts, it proposes a refined agent-agent conflict that arises when multiple co-CEOs run the firm. Assuming the principal opportunism, it predicts that outside directors will be beneficial under co-leadership, particularly under mixed co-leadership (i.e., comprising family and non-family co-CEOs) and family generations after the first. An analysis of Italian family firms' export supports the hypothesized effects. The theoretical implications are discussed and have significance for research on both family businesses and agency theory.

## Keywords

family firms, outside directors, international export, co-CEOs, agency theory, co-leadership

## Introduction

Agency theory remains a contentious topic in family business research. This theory posits that, in principal-agent relationships, self-serving agent-CEOs act opportunistically to maximize their own self-interests at the expense of principal-owners. Based on this premise, agency theory contends that monitoring by outside directors—that is, individuals with no ties to the CEO or the firm—serves as a crucial governance mechanism to curb the CEO's opportunistic behaviors (Jensen & Meckling, 1976). This agency conflict, known as Type-I agency conflict, has been applied in management and family business studies (Kellermanns & Hoy, 2016), but some scholars question its applicability to family firms, where trust and family ties reduce the likelihood of principal-agent conflicts (Chrisman et al., 2004; Villalonga et al., 2015).

To address this concern, scholars have moved beyond the principal-agent conflict, focusing their attention on the *principal side* in two primary ways. First, some scholars have delved into the principal-principal conflict

(i.e., the Type-II agency conflict) that arises within the family (i.e., between distinct branches across generations) or between the family and external equity-holders (Bammens et al., 2008). While acknowledging family firms' heterogeneity by ownership structures, these theoretical interpretations and empirical findings remain inconclusive (Kerai et al., 2023; Singh & Delios, 2017; Villalonga & Amit, 2006). Second, others have developed a refined agency framework tailored for family businesses, identifying the principal opportunism as a distinct source of agency problems in these firms (Schulze et al., 2001, 2003). This perspective has contributed more to enriching the conceptual depth than to generating novel powerful predictions, as published

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studies keep on examining main effects of outside directors, yielding mixed results (Calabrò & Mussolino, 2013; Schulze et al., 2001).

With the emphasis placed on the principal side, scholars have overlooked the agent side, and specifically a unique feature of family firms having potential implications for agency conflicts: the co-leadership. Family businesses frequently employ co-leadership or co-CEOs (D. Miller et al., 2014), that is, a managerial arrangement where two or more co-CEOs hold the top position and share joint responsibility for corporate decisions (Alvarez & Svejenova, 2005). To date, studies examining co-leadership have utilized various frameworks, such as socioemotional wealth (SEW) (D'Angelo et al., 2023; D. Miller et al., 2014), power (Cirillo et al., 2015), or shared leadership (Bövers & Hoon, 2020). From an agency perspective, co-leadership creates a "co-agent" setting, or co-agency, where multiple co-CEOs raise unique agency challenges beyond traditional agency models. Indeed, research in economics and political science (e.g., Camyar, 2014; Shapiro, 2005; Strøm, 2000) suggests that co-agency alters agents' behaviors. When facing a dominant principal, self-serving co-CEOs compete to win the principal's favor and maximize their individual utility, resulting in the principal's demands being more fully met. While this dynamic may reduce agency costs in standard principal-agent settings, the competition among co-CEOs becomes problematic under principal opportunism (Lubatkin et al., 2007; Schulze et al., 2001). In these cases, appeasing the principal's aberrant demands exacerbates agency costs, heightening the need for board oversight. The influence of outside directors may thus vary depending on whether the firm's leadership is structured around co-CEOs or a single CEO. Overlooking these distinctions, published studies keep on analyzing the main effects of outside directors on firm outcome, disregarding the underlying differences of co-CEOs vs. a solo CEO.

The above considerations beg the question: Does monitoring by outside directors make a difference in family firms' decision outcomes under co-CEOs versus solo-CEO structures?

To address the question above, we build on co-agency models encompassing two or more agents (Camyar, 2014; Roszkowska et al., 2023; Shapiro, 2005; Strøm, 2000). We posit that co-agency creates an *agent-agent conflict* so that co-CEO competition results in decisions being flattened upon the principal demands. Under the

principal opportunism (Schulze et al., 2001), this relational dynamic magnifies agency costs, making board monitoring particularly needed under co-leadership. We thus predict that the influence of outside directors is contingent on the kind of leadership running the firm. Outside directors will exert a stronger positive influence on decision outcomes when co-CEOs run the firm, as opposed to a solo CEO. In addition, inspecting the co-CEOs' composition, we distinguish varying forms of co-CEO sub-groups: *all non-family co-CEOs*, *all family co-CEOs*, and *mixed co-CEOs* comprising family and non-family co-CEOs. Building on co-agency compositional models (Halevy, 2008; Mukherji et al., 2007), we suggest that control needs by outside directors are stronger under mixed co-leadership. Finally, accounting for variation in principal's configurations, we acknowledge the changing nature of agency problems over time (Bammens et al., 2011), and predict the beneficial effect of outside directors under mixed co-leadership to be greater in family generations after the first founding stage of a family dynasty.

We test the validity of our theory by examining a strategic decision widely acknowledged to carry agency problems, that is, firm export. Due to the major information asymmetries and risks it implies, export generates significant agency costs, so that agent/s can behave opportunistically for self-serving purposes (Alayo et al., 2021; Debellis et al., 2021; Lukason & Vissak, 2020; Sanders & Carpenter, 1998; Singla et al., 2014). Indeed, "internationalization leads to an increase in organizational complexity that creates information asymmetries" (Singla et al., 2014), so that (co-)agents may mis-represent reality to appease the principals' demands and maximize their self-interests. Thus, we constructed a large sample of 2,481 Italian family firms engaged with exporting strategies in the years 2011–2018. The empirical results support the hypothesized effect. The positive influence of outside directors on firm export is stronger under co-leadership rather than a solo CEO. Taking into account the co-leadership composition, this positive effect is stronger when co-leadership is mixed, that is, when it includes family and non-family co-CEOs. Finally, the effect of outside directors under mixed co-leadership is magnified in family generations after the first.

This study makes significant theoretical contributions to family business research and agency theory. As for *research on family firms*: it illuminates the

specificities of agency problems in family firms arising from the presence of two or more co-CEOs, i.e., an arrangement which is widespread among family businesses (D. Miller et al., 2014). By integrating the agent-agent conflict with the accepted notion of the owner opportunism, it refines early efforts to articulate agency problems in family businesses (Lubatkin et al., 2007; Schulze et al., 2001). The refined agency framework advances family firm research on a vast array of decision outcomes (e.g., export, innovation, Akram et al., 2022) and governance structures around the world (Aguilera et al., 2019), offering novel avenues for integrating theoretical perspectives (Boyd et al., 2011). In addition, by illuminating mixed co-leadership, it reframes board monitoring as a rebalancing mechanism against the agency problems implied in the composition of the management structure: in so doing, it offers new insights into why and when non-family CEOs may boost agency costs and be detrimental (rather than beneficial) (Villalonga et al., 2015), requiring outside directors to counteract their effect. Finally, it adds to the debate on agency costs across family generations, contributing to explain why monitoring needs increase as the family dynasty moves beyond the first founding generation. As for *agency theory*: this study extends agency theory beyond the well-established models of principal-agent conflict (Jensen & Meckling, 1976) and principal-principal conflict (Young et al., 2008). By infusing political science and economics' insights on co-agent settings (Camyar, 2014; Roszkowska et al., 2023; Shapiro, 2005; Strøm, 2000), it recognizes the agent-agent conflict (i.e., co-CEOs) as a distinct source of agency costs under self-serving, dominant principals. This conceptual addiction has several implications. First, this study shows that the general claim from standard agency theory—according to which co-leadership reduces agency costs rendering board monitoring less needed (Arena et al., 2011)—is not universally valid, and that it may actually be reverted in family firms, so that multiple co-CEOs render board monitoring more (not less) needed. Thus, it highlights the principal self-interest as a key driver in principal-agent relationships, urging agency theorists to give it explicit consideration as originally proposed by Jensen (1994), and later recommended by Schulze and colleagues (2001). In addition, this study has broader implications for several research domains, including: co-agents serving a common principal, such as multiple subsidiaries acting as agents of a common MNC

headquarter (Hoenen & Kostova, 2015); a refinement of board models (Hillman & Dalziel, 2003; Zhang & Liu, 2019); and the modification of the principal-principal conflict in light of agent-related issues (Purkayastha et al., 2019), including agent-agent conflicts.

## Theoretical Background

### *Family Firms and Exporting Strategy Through a Traditional Agency Theory Lens*

Agency theory represents a primary conceptual framework in management and governance studies. According to this theory, a principal-agent conflict arises when an owner (the principal) delegates power to a CEO (the agent) to perform some service on the principal's behalf. In such a setting, a self-serving agent-CEO may act opportunistically at the expense of the principal-owner, resulting in agency costs that inhibit effective decision-making (Jensen & Meckling, 1976). Boards consisting of outside directors can mitigate agency costs and enhance firm outcomes.

This perspective has been widely applied in management and family firm research to explain financial performance and several strategic decisions, such as firm exporting (Lukason & Vissak, 2020). The central idea is that firm export carries information asymmetries and risks, so that self-serving agents overinvested in a firm eschew initiatives overseas. As Sanders and Carpenters (1998) suggest, a far-flung internationalized organization increases information asymmetries between principals and agents, thus compounding the agency problem (p. 160). Furthermore, “the complexity of international operations is likely to increase the ambiguity surrounding cause-effect relationships, provide multiple decision options, and thus result in greater agent discretion” (Sanders & Carpenter, 1998, p. 160), which “has been traditionally viewed as a prime source of principal-agent discord” (p. 160). Thus, research in both management at large (e.g., George et al., 2005; Lukason & Vissak, 2020; Oxelheim et al., 2013; Sanders and Carpenter, 1998; Singla et al., 2014) and family firms (e.g., Calabrò & Mussolino, 2013; Herrera-Echeverri et al., 2016; Ilhan Nas & Kalaycioğlu, 2016) has applied agency theory to the export intensity or related constructs, including foreign sales diversification (e.g., Majocchi & Strange, 2012; Mitter et al., 2014). For example, management scholars, such as George et al. (2005) investigate managerial

ownership as a driving force of internationalization in small firms. Oxelheim et al. (2013) adopt an agency lens to study the influence of boards on foreign sales.

Family business scholars adopt agency theory to explain why outside directors are needed to foster firm's export (Alayo et al., 2021; Debellis et al., 2021). Agency problems stifle family firms' export, given risk aversion implied by family's overinvestment in the firm (Gomez-Mejia et al., 2010), moral hazard and resource-misallocation encouraged by information asymmetries in foreign operations (Sanders & Carpenter, 1998), limited means for overseas investing due to resource expropriation (Bammens et al., 2011). In particular, the predominance of a family's non-economic goals generates agency costs (D. Miller & Le Breton-Miller, 2014, p. 716). Indeed, family firms are prone to (a) avoid outside equity funds to preserve control, restraining resources for overseas investing (Calabrò & Mussolino, 2013); (b) prioritize perquisite consumptions over investing (Atanasov et al., 2008); (c) ensure the status quo to reduce novel venturing overseas (Gomez-Mejia et al., 2010); (d) pursue nearby-growth to preserve local stakeholders (Zona et al., 2022) and historical roots (Alessandri et al., 2018; Bauweraerts et al., 2019; D. Miller et al., 2008); (e) instill nepotism to weaken proficient capabilities that are much needed in complex international settings (Calabrò et al., 2018). Consequently, monitoring mechanisms, such as outside directors, are needed to temper agency problems (Eisenhardt, 1989, p. 59).

Despite the strength of the agency rationale, results from published studies are mixed. For example, in support of agency theory, Calabrò and Mussolino (2013) found that outside directors foster firm export; Herrera-Echeverri et al. (2016) found that family firms with higher participation of outside directors exhibit higher levels of export; Majocchi and Strange (2012) found that board monitoring fosters family firms' internationalization. By contrast, Mitter et al. (2014) found a negative, non-significant influence of board monitoring; Ilhan Nas and Kalaycioğlu (2016) found that outside directors significantly reduce export intensity.

Scholars have thus sought to enquire into the family firms' heterogeneity from a principal side, examining, for example, board monitoring as family owners' generations unfold beyond the first founding stage, and the ownership configuration becomes more/less concentrated. Yet, contradictory logic and results have

persisted. For example, building on agency logic, some scholars contend that control needs increase as family generations move beyond the founder stage and as ownership becomes fragmented (Arosa et al., 2010; Bammens et al., 2008, 2011; Villalonga & Amit, 2006). Yet, these views contradict other agency logic and findings: Kerai et al. (2023) find that independent directors exert a positive effect under a CEO founder stage; Singh and Delios (2017) find the effect of board monitoring to be stronger as ownership becomes more concentrated. Ultimately, in the face of inexplicably mixed findings, some scholars conclude that outside directors are "*de facto* affiliated with the controlling family" (Spadafora et al., 2022), so that—despite their position as external actors—their presence is inconsequential to decisions. This bold statement, however, contradicts the well-accepted general validity of agency theory, even in close social relationships (Cruz et al., 2010; Eisenhardt, 1989).

One common problem from all this past research is the persistent application of the standard agency theory (with one agent) to family businesses. As we shall argue below, agency problems in family firms are particular and differ from conventional agency models, requiring a refinement of theoretical rationales. In particular, agency problems in family firms involve (a) the principal opportunism (Jensen, 1998), which has been already recognized by family business scholars (Schulze et al., 2001); (b) an agent-agent conflict implied by co-leadership, which has not yet been acknowledged, and constitutes the centerpiece of our contribution. Given that these two agency issues are related, we first review the principal opportunism and then outline agency issues in family firms arising from co-leadership.

### *Agency Problems in Family Firms: The Principal Opportunism*

Differently from public companies with fragmented ownership—whereby the key agency issue concerns the agent/CEO opportunism—family firms are also vulnerable to a different agency problem, that is, the owner opportunism (Perrow, 1986). The owner opportunism refers to "an agency problem with oneself" (Jensen, 1998, p. 48) and exists in both private (De Massis, Kotlar, et al., 2018; Schulze et al., 2001) and publicly traded firms (Chang et al., 2010; Muñoz-Bullón & Sanchez-Bueno, 2011), and even when the owner is a

single person. As outlined below, it refers to issues concerning one's attitudes toward others and self-control.

The owner opportunism is rooted in two sources of moral hazard: (a) *altruism*, with family principals being overly generous with familial needs, leading to excess resource consumption and shirking by family members, and (b) *loss of self-control* or failure to regulate one's impulses for immediate gratifications (see Lubatkin et al., 2007; Schulze et al., 2001).<sup>1</sup> Such biases lead to the waste of resources and to satisfy non-economic utilities at the expense of financially rewarding initiatives. Thus, beyond the agent/CEO opportunism, a key source of agency problems in family businesses rests on the owner opportunism, that is, a powerful family principal making aberrant requests to satisfy familial needs and immediate impulses at the expense of valuable initiatives, such as international venturing. In this context, outside directors curb opportunistic behaviors from both the agent and the principal. They may function as a regulatory body for the principal: while not having the power to enforce their will, they remind the family principal of his responsibilities, offering a chance to restore self-control (Jensen, 1994) and curb biased altruism (Schulze et al., 2001) when impulses come to the fore.<sup>2</sup>

As we shall argue below, the problem of the owner opportunism in family firms can be more or less severe, depending on the managerial structure at the top and, particularly, on the presence/absence of co-leadership: hence, hypothesis testing and research design must change accordingly, depending on the managerial arrangement at the top. With this study, we begin to unravel this issue, introducing meaningful advances in theorizing and hypothesis testing.

### ***Co-CEOs and Agent-Agent Conflict: Magnifying Agency Costs From Owner Opportunism***

Family firms typically adopt co-leadership structures (Arena et al., 2011, p. 387; D. Miller et al., 2014)<sup>3</sup>: theoretical framings accounting for this specificity are thus significant, as they may be relevant for many of these organizations.

Co-leadership may have significant implications from an agency-based perspective, particularly for family firms.<sup>4</sup>

To date, agency scholars have addressed co-leadership in public companies (Arena et al., 2011; Krause

et al., 2015; Miller et al., 2014; Pittino et al., 2018). In this setting, co-leadership fosters mutual monitoring among co-CEOs, rendering board monitoring *less* needed. The “mutual-monitoring hypothesis” unfolds along this logic: (a) due to fragmented ownership (and hence weak scrutiny by shareholders), any co-CEO may easily enact opportunistic behaviors to expropriate the principal-shareholders; under co-leadership, such behaviors create negative externalities to the utilities of other co-agents/co-CEOs (<sup>5</sup>); (b) co-CEOs have thus incentives to monitor each other to prevent aberrant behaviors and the implied risk of negative externalities to happen. Mutual monitoring among co-CEOs substitutes for the board, reducing the need for monitoring by outside directors (Arena et al., 2011).

This view rests on the severity of the principal-agent problem in public companies and the significant chance for a CEO in this setting to expropriate shareholders. This logic hardly applies to family firms because the presence of dominant owners mitigates the relevance of principal-agent problems (Villalonga et al., 2015). Under co-leadership, however, a distinct agency problem arises in these firms. Agency research from streams other than management studies, such as economics and political science (e.g., Camyar, 2014; Roszkowska et al., 2023; Shapiro, 2005; Strøm, 2000; Tirole, 1992a,b) has developed agency models involving multiple co-agents under the influence of a joint influential principal, a scenario reflecting family firms' co-CEOs depending on the dominant family principal. In this view, power concentration in the hands of the principal reduces collusion among co-agents (Tirole, 1992a), instilling an agent-agent conflict wherein competing co-agents intensely acquiesce to demand by the principal, the source of their rewards (Camyar, 2014; Roszkowska et al., 2023). Under the owner opportunism (Schulze et al., 2001), however, this competitive dynamic—we contend—will entail complacency to the aberrant principals' requests, exacerbating agency costs with the result that, under co-leadership, control needs will be magnified (instead of being minimized, as in public companies). Specific aspects of this logic will be outlined in the hypothesis development. For now, it suffices to say that a significant source of agency costs in the family businesses lies in the co-leadership structures so often adopted in these firms. The influence of outside directors will hence be stronger under co-leadership and weaker under a solo CEO.

Adding to the above, co-leadership appears in differing forms comprising “all family co-CEOs,” “all outside non-family co-CEOs,” or “mixed family and non-family co-CEOs,” calling for an examination of whether/how the inside team composition changes the monitoring needs. To date, studies examining solo CEOs outline that not only do agency costs arise under a non-family CEO, but they also occur when a family CEO runs the firm. This is because, under a family contracting, “the interests of the family executive are not necessarily the same as those of the shareholders—extended family” (Gomez-Mejia et al., 2001, p. 83; see pp. 82–83 for agency costs when a family CEO is at the helm).<sup>6</sup> Board monitoring is thus needed when either a family or a non-family CEO is at the helm (Songini & Gnan, 2015). Applying the principal-agent model with one agent, these studies typically consider CEOs as lone leaders who run the firm as single individuals.

The few studies on co-leadership in family firms typically adopt frameworks other than agency theory, such as the SEW (D’Angelo et al., 2023; D. Miller et al., 2014) or power perspectives (Cirillo et al., 2015). However, scholars examining multi-agent settings (Halevy, 2008; Mukherji et al., 2007) offer insights evocating that co-CEO inside the composition, including family and non-family co-CEOs, may alter co-agency, rendering board monitoring more/less needed across co-CEOship types. It is thus valuable to explore whether the core insight about board monitoring varies across co-CEOship compositions. In addition, as intra-family relationships change across the family generations (Bammens et al., 2011; Zona, 2015, 2016), it can be expected that the influence of outside directors under differing co-CEOships will change accordingly as the family dynasty moves from the first to the subsequent family generations.

In the following section, we dig deep into the key rationales leading to hypothesis development, challenging the established agency perspective, and offering refined views of agency relationships in family businesses.

## Hypotheses Development

### *Board Monitoring in Co-Leadership Versus Solo-CEO Structures*

In standard agency theory, a single agent acts on behalf of the principal, but in multi-agent settings, the presence of multiple CEOs alters the agency problem. The extant

research suggests that co-agency exacerbates agency costs for two main reasons (Camyar, 2014; Shapiro, 2005; Strøm, 2000). First, under co-agency, each CEO seeks to maximize their individual utility, potentially at the expense of other co-CEOs: co-agents “try to achieve as much for themselves as possible and also take away from their counterparts [agents] as much as possible” (Roszkowska et al., 2023, p. 1432). Second, when power is centralized in the hands of the principal, and comparative evaluation is at work, the possibility of collusion stifles and competition rises (Tirole, 1992a; 1992b).

This framing reflects the setting of family firms with concentrated ownership, characterized by dominant principals and co-CEOs. In this setting, co-CEOs become especially sensitive to the needs of the principal family-owner. Indeed, under a dominant principal, the chances for opportunistic behaviors are mitigated (Villalonga et al., 2015), and the agent’s utility maximization more intensely rests on the rewards granted by the principals in terms of compensation, job security, and recognition. In multi-agent settings, to maximize their individual utility, “two or more agents, such as executive agencies, compete for the attention of the same principal” to gain extra resources and rewards (Strøm, 2000, p. 270). Specifically, in a co-agency structure, each CEO is aware that other co-CEOs may attempt to gain favor with the principal, by more aggressively endorsing the principal’s demands. For instance, a CEO trying to sustain firm export may be easily displaced by other co-CEOs, who may convey (even through informal channels) biased information accommodating the principal’s tendency to preserve the status quo. Recognizing this risk, any co-CEO has incentives to rush after satisfying the principal’s will, resulting in strategic plans being wholly flattened on familial desires. Co-CEOs will then engage in escalating commitment to appease the principal’s demands and satisfy his expectations to get, in exchange, rewards and to maximize their utility. This mechanism is inherently tied to co-CEO positions, independently of their identities as non-family/family members. As for non-family CEOs, published studies document that non-family utility-maximizing co-CEOs engender dynamics such as intra-team conflict, competition, and sabotage (Yoo et al., 2021), so to displace their fellow co-CEOs. As for the family CEOs, it has been recognized that “the family CEOs may enter into power competition with other family members” (Peng & Jiang, 2010, p. 258) in the

aim of gaining primacy as the family breadwinner (Schulze et al., 2001).

Hence, under co-agency, co-CEOs more closely accommodate the requests of principal owners, even if this means taking actions that satisfy the principal's non-economic goals at the expense of firm financial wealth. For instance, information about the firm's economic viability, such as risky exporting, is more likely silenced. In contrast, plans that preserve the status quo and satisfy familial tastes are put forth. Research from political science supports this view, outlining that multiple co-agents tend to "represent their principal's preferences accurately, as this would help them achieve a high score" (Roszkowska et al., 2023, p. 1434); they "leak information to principals, in an effort to get an upper hand over other agents" (Shapiro, 2005, p. 267; Waterman & Meier, 1998). Thus, plans of interest to the principals are more likely advanced by multiple agents (Camyar, 2014).

Outside directors can be valuable in curbing the mechanism above. They offer the chance to mitigate the co-CEOs running up toward an excess acquiescence to the family's self-serving needs. For instance, outside directors may provide the family principals with an independent opinion against which to assess a co-CEO's proposal; they may challenge or invalidate biased information on international markets conveyed by a co-CEO with the sole purpose of ingratiating family principals; they may question assumptions underlying strategic proposals advanced by co-CEOs to appease the family (Mitter et al., 2014). Outside directors can act as a break or a filter against informal channels of influence and information exchange, by which a co-CEO may seek to buy-in consensus of family members outside the formal meetings. Even the mere presence of outside directors may serve as a deterrence against co-CEOs' deception of the principal (Mizruchi, 2004).

Outside directors restrict co-CEOs' escalating commitment by objectively reporting information to clarify the costs and risks implied by altruism and self-control loss, such as those arising from conservative, home-focused strategies in the face of competitive dynamics in international markets. Based on the above, we predict the following:

**Hypothesis 1:** The effect of outside directors on firm export in family firms is greater under co-CEO structures than in solo-CEO structures.

### *Board Monitoring Under Varying Co-Leadership Structures*

In Hypothesis 1, we predict that outside directors will foster firm export, especially under co-leadership, rather than the solo CEO. We now enquire into the inside composition of co-leadership, considering the CEO identities. We predict that the positive influence of outside directors on firm export will be stronger under *mixed co-CEOships* comprising family and non-family co-CEOs; it will be weaker in alternative scenarios, such as *outside co-CEOships* (whereby co-CEOs are all non-family members) and *family co-CEOships* (with all co-CEOs being family members only). Two distinct and interrelated arguments support this view.

The first argument concerns the greater *need* for outside directors under mixed co-CEOships. Mixed co-CEOships bring more intense competitive dynamics. The co-existence of family and non-family co-CEOs at the top subdivides the chief management team into two sub-groups (Minichilli et al., 2010), boosting inside competition (Kotlar & De Massis, 2013; Thatcher & Patel, 2012). Halevy (2008) introduces a conflict of interest within teams. He posits that the presence of sub-groups impairs the team's collective action and increases group members' focus on private (rather than collective) interests (Halevy, 2008, p. 1690). Similarly, in studying multi-agent settings, Mukherji and colleagues (2007) conclude that *faction-ridden* agents represent an unstable situation, whereby (a) principals may employ a "divide-and-rule" policy to exploit differences in various factions of agents, and (b) agents become submissive to the principals (p. 959), meeting more of the principals' requests. Thus, in mixed co-CEOships, the competition between agents and the implied escalating commitment to familial demands strengthens. In particular, as compared with a homogeneous group, in a mixed co-CEOship, a co-CEO suffers from a distinct source of competition: not only does he face competition from others, perceived merely as *fellow co-CEOs* (i.e., as in the homogeneous co-CEOship); instead, he faces competition from a family (a non-family) member *seen as a distinct actor belonging to the opposite referent category*. In other words, in a mixed co-CEOship, it will be especially harmful to a *family* CEO to be outperformed by a *non-family counterpart* in meeting the family demands, implying a loss of legitimacy and influence as a family breadwinner (Berrone et al., 2012); similarly, it

will be particularly detrimental for non-family CEOs to be outperformed by a *family counterpart*, signaling the former inability to satisfy the familial needs, making her professional position vulnerable (Gomez-Mejia et al., 2001). Studies from a distinct research tradition concur with this idea, suggesting that dividing sub-groups entails an identity threat for team members, fostering intra-team competition (Zhang & Liu, 2019, p. 43).

A second argument reflects a greater *potential impact* that outside directors exert in the mixed co-CEOship. The presence of both family and non-family co-CEOs engenders a goal conflict between the two parties. Specifically, non-family CEOs are external managers who are also interested in fostering their career prospects (Gomez-Mejia et al., 2003). While acquiescing to the family demands (as per Hypothesis 1), they are also willing to pursue visible strategic actions and distinguished financial outcomes that are rewarded by the job market in future employment positions at other firms (Mukherjee & Nguyen, 2018). Thus, family and non-family co-CEOs hold different preferences on the mix of non-economic and economic goals. Despite their distinct career interests, the co-agency structure compels co-CEOs to chase after the principal preferences. In this scenario, outside directors—as external actors less affected by family needs—may rebalance the preference diversity in favor of the outside co-CEOs, providing rational judgments and unbiased information in support of less risk-averse (more risk-loving) initiatives to expand in foreign markets. Published studies confirm that the involvement of external actors weakens the detrimental influence of sub-groups in a team (Polzer et al., 2006). As Zhang and Liu (2019) discuss teams' sub-groups:

External leader (i.e., outside directors; *authors' note*) is the leader that the team needs to report to; although he does not directly participate in the team, he can promote self-monitoring and self-assessment [. . .]. In contrast, internal leaders are within the team, whose management are likely to cause conflicts between team members (p. 45).

Thus, as external actors not involved in intra-team dynamics, outside directors can play a primary role in rebalancing the preference diversity toward more objective, rational, value-enhancing initiatives. While not having the power to impose their will, they may remind family co-CEOs of their responsibility for the family, tempering the agency problems of altruism/self-control

(Schulze et al., 2001), shifting their inclinations to more openly consider the non-family co-CEOs' financially-sound prospects.

To summarize: as compared with a homogeneous co-CEOship (i.e., all family co-CEOs or all non-family co-CEOs), the mixed co-CEOship will magnify both *the need* for outside directors (greater co-CEO competition) and *the potential impact* of outside directors' monitoring (shift of preference diversity in favor of outside, value-enhancing initiatives), resulting in a less family-centered, less impulse-driven, and less altruism-imbued strategy, and a more financially-sound, long term-regarding international venturing. The aforementioned arguments lead to the following.

**Hypothesis 2:** The effect of outside directors on firm export in family firms is greater when co-leadership is mixed (consisting of family and non-family co-CEOs).

### *Board Monitoring: Mixed Co-Leadership Under First vs. Subsequent Family Generations*

We further predict that the effect envisaged in Hypothesis 2 above (i.e., a strong positive influence of outside directors under mixed co-CEOship) is magnified in family generations after the first founding generation.

Following Sonfield and Lussier (2004), a first-generation family firm is defined as a family-owned firm whereby the family members involved are only from the first founding family generation. As we shall argue below, the agency problem is attenuated in this setting, whereas it becomes more severe in subsequent generations of family firms.

In the first founding generation, the founding family member exerts a major ordering influence from both formal and informal sources (Bammens et al., 2008; Calabrò & Mussolino, 2013; Majocchi & Strange, 2012; Mitter et al., 2014; Zona, 2015), so that family demands will be realized through her consent. When ownership is in the hands of the founder, “the positive (not the negative, as in Schulze et al., 2001) traits of parental altruism are expected to engender a link between the controlling owner's wealth and that of the family” (De Massis et al., 2013, p. 168); thus, the “first-generation family firms should be less family-oriented than later generation firms” (P. S. Davis & Harveston, 2001, p. 19; also Leach,

1990). Consequently, first-generation family firms are more likely to “favor wealth-generating investments over consumption of firm resources” (De Massis et al., 2013, p. 168). To this view, published research reports that founder-owned, first-generation firms exhibit greater financial performance (Anderson & Reeb, 2003; De Massis et al., 2013) and entrepreneurial orientation (L. Beck et al., 2011). It follows that, while the escalating commitment among co-CEOs may still be present, it will target relatively more value-enhancing intentions by the founding owner. Hence, the escalating commitment by co-CEOs will be less detrimental, and the need for outside directors will be relatively reduced.

By contrast, as the family dynasty enters the family generation after the first, agency problems become more complex. In this setting, a *principal-principal conflict* among nuclear families intensifies (Calabrò et al., 2013; Young et al., 2008) to impair internationalization (Santulli et al., 2019). Conflicts of interest arise among nuclear families of distinct branches, who compete to impose their will (Chrisman et al., 2005). Indeed, “subsequent-generation family firms are more likely than first-generation family firms to have conflict and disagreements between family members” (Sonfield & Lussier, 2004, p. 192).

When highly competing co-agents (mixed co-CEOship) co-exist together with highly competing principals (family generations after the first), the levels of agency costs rise to their highest. A complex bundle of alliances, power games, compromises, and decision stalemates undermines decision-making (Kellermanns et al., 2012, p. 88). In this setting, the major escalating implied in the mixed co-CEOships (Hypothesis 2) becomes more detrimental.

Research in political science on multi-agent/multi-principal settings offers several insights. From the standpoint of *competing principals*: “when there are competing principals, agents would have an incentive to ally themselves with principals who most closely reflect their basic policy goals” (Waterman & Meier, 1998, p. 180). From the standpoint of *competing co-agents*: “agents would have a clear incentive to leak information to competing principals” (Waterman & Meier, 1998, p. 180), that is, to principals who are opponents of other (agent-challenging) principals. Thus, under multiple competing principals and agents, “the agent may be able to ‘play’ his multiple principals against each other, and thereby get his way” (Aghion & Tirole, 1997, p. 23).

In particular, under mixed co-CEOship, family co-CEOs constitute a channel through which nuclear families put forth their demands: conflicting goals among distinct nuclear families easily get transferred to the top, fostering conflicts and competition between co-CEOs. Moreover, even family co-CEOs “may be viewed as being exclusively concerned with the interests of their nuclear household, rather than the interests of the entire extended family” (Bammens et al., 2008, p. 167).

In this setting, outside directors are especially needed to mitigate both the escalating commitment by competing co-CEOs and the power struggles at the top, so as to redirect attention and resources toward more value-enhanced, risk-laden initiatives, such as venturing overseas. By bringing dispassionate and objective assessment of strategic proposals, outside directors can make a difference by rebalancing power and influence in favor of outside co-CEOs vis-à-vis dominant family CEOs, supporting their claims for value-enhancing initiatives. These rationales suggest the following.

**Hypothesis 3:** the positive effect of outside directors on firm export under mixed co-leadership is magnified in family dynasties after the first founding generation.

## Method

### Data Collection

This empirical study is based on a sample of Italian family firms that reported annual sales exceeding a threshold of 50 million euros in fiscal year 2018. This threshold is typically used to characterize medium—and large-sized companies in the Italian context (Amore et al., 2011). The starting population consists of 2,481 family firms.

Italy satisfies two conditions that allow us to define the institutional context as suitable for our study. First, as widely reported by numerous studies (Prencipe et al., 2011), the majority of Italian companies can be classified as family-controlled firms, which are characterized by the involvement of the family shareholders in the management of the company (Campopiano et al., 2014; D. Miller et al., 2013, 2018). Second, the extensive presence of co-CEO structures characterizing the sample of Italian family firms (Cirillo et al., 2015; D. Miller et al., 2014). The complexities deriving from increasingly globalized markets have gradually led to the simultaneous

presence of multiple CEOs (Krause et al., 2015; Menz & Scheef, 2014).

The presence of many family members and multiple CEOs can lead to the simultaneous presence of different family generations, determining the cohabitation of CEOs, either family or non-family (D'Angelo et al., 2023). According to data from the Italian AUB Observatory of family firms, from a comparison between the corporate governance structures of the companies in the four largest European countries, it emerges that family firms in Italy and Germany hold the highest percentages of collegial leadership with 56% and 42%, respectively. Given the prevalence of family ownership and the extensive presence of co-CEO structures characterizing the sample of Italian family firms (D'Angelo et al., 2023; Miller et al., 2014), our sample is particularly well suited for answering our research question.

We followed the extant research (D. Miller et al., 2013, 2022), defining family firms as those non-listed firms in which one or two families control the absolute majority of shares (50% + 1 share). Consistent with other studies, we reduced this threshold to 25% for firms listed on the stock market, as fragmentation of minority shareholders or the use of control-enhancing mechanisms allows to maintain control of the firm (Amore et al., 2011; Andres, 2008; D. Miller et al., 2013).

We assembled the data set using detailed and updated information from three sources. We collected financial data for each firm from the Italian Bureau van Dijk, a business information service provider. We manually collected governance data using the Italian SEC Security and Exchange Commission (CONSOB) data for listed firms and official public filings obtained from the Italian Chamber of Commerce for unlisted firms. Furthermore, we manually collected export data from each company's financial statement for the 8-year period 2011–2018. In particular, the export turnover is usually indicated in the *Notes to the Financial Statement* (i.e., *Nota Integrativa*) or the management report (i.e., *Rapporto sulla Gestione*). Thus, we merged our sources and dropped observations with missing values in the key explanatory variables and observations with a negative or zero book value of assets. Therefore, several financial control variables determined an increase in missing financial performance data, with a final usable sample comprising 14,423 firm-year observations related to 1,934 family firms (78% of the initial sample).

## Variables

The dependent variable, *Export ratio*, was calculated as the proportion of foreign sales on total sales (FSTS) (Calabrò & Mussolino, 2013; Fernández & Nieto, 2005; Ramón-Llorens et al., 2017). Our core independent variable is *Percentage of outside directors*, calculated as the ratio of non-family members who do not belong to the controlling family to the total number of directors (Calabrò et al., 2009). The second key variable is *co-CEOs*, measured as a dummy variable equal to 1 when the family firm is characterized by two or more CEOs that jointly run the firm (0 otherwise) (D. Miller et al., 2014; Pongelli et al., 2021). The choice of a dummy variable is appropriate as it captures the distinction between the standard setting of principal-agent (i.e., one solo CEO runs the firm; dummy = 0) versus this study's proposed setting of agent-agent conflict (i.e., co-CEOs run the firm; dummy = 1). Thus, conditioning regression results on this dummy variable will reflect the differential effect of outside directors in these two settings. We also construct a *Subsequent generations* dummy variable distinguishing first versus second or subsequent generations; this variable is equal to 0 when the founder is the CEO (or the largest owner, for firms with a non-family CEO) (i.e., first generation) and 1 otherwise (i.e., second or subsequent generations) (D. Miller et al., 2022). To further investigate the heterogeneity of co-CEOs leadership models, we distinguish the co-CEOs into three sub-groups: *pure-family co-CEOs*, which includes cases where all CEOs belong to the principal family; *mixed co-CEOs* comprising both family and non-family co-CEOs; *pure-outside co-CEOs*, which includes only external, non-family co-CEOs. Family members are those with blood or marital ties to the owning family, identified through surname affinity (Amore et al., 2014). Moreover, following the approach of Amore et al. (2017), we included the family relationships that are not based on family surname (e.g., spousal relationships).

We included several control variables based on a comprehensive review of prior studies. *Ln firm age* reflected the firm age and was computed as the logarithmic transformation of the number of years since the firm's foundation (D. Miller et al., 2013). *Ln firm assets* was measured as a logarithmic transformation of assets (Sharma et al., 2020) and captured the organization's size. With *Listed*, we check for listing status with a

dummy variable, even though less than 4% of firms are listed in our sample (Pongelli et al., 2021). *Liquidity index* was calculated as the ratio of cash and cash equivalent on total assets (Rubino et al., 2017). *Leverage ratio* represents the ratio of bank debt to sales (Cambrea et al., 2022). *Cost of debt* was calculated as the incidence of financial expenses on sales (Cruz et al., 2014). We also included controls for corporate governance structures. *Ln board size* reflects the size of the board, and it was computed as a logarithmic transformation of the number of directors (Rubino et al., 2017). At the CEO level, we included *Leader age*, which refers to the age of the CEO (D. Miller et al., 2018), and *Leader tenure* by calculating the number of years that the CEO has been in their position (Strike et al., 2015). For co-CEOs, we selected the most senior and experienced CEO (Boellis et al., 2016). *Female board members* is computed by the percentage of women on board (González & González-Galindo, 2022). Then, we control for *TMT ratio*, calculated as the top executive members (directors with executive powers) sitting on the board on the total number of board members (Li et al., 2023; D. Miller et al., 2018), and for the CEO ownership, measured by the proportion of the firm's shares owned by the CEO (Calabrò et al., 2013).

### Empirical Strategy

We used the Ordinary Least Squares (OLS) regression strategy with industry-year fixed effects, as adopted by previous research (Gormley et al., 2013). This methodology was required as the governance structure in family firms changes slowly over time. In particular, in our dataset, our variables, *Percentage of outside directors* and *co-CEOs*, rarely changes: this phenomenon reduces the concern of endogenous variations relative to business conditions. Thus, OLS was necessary because there is slight within-group variation in the main independent variables of our study (Amore et al., 2017), making the fixed effect model useless (N. Beck, 2001; Gormley & Matsa, 2014; Plumper & Troeger, 2007). On the other hand, applying OLS regression without any group indicator could engender biased results, given that such a choice assumes that there is no unobserved group heterogeneity or that the heterogeneity is not correlated with the independent variable. We used a different methodology to eliminate this bias and consider unobserved heterogeneity across industry-year combinations (Gormley et al., 2013). Thus, we estimated the resulting value for each firm as

$$Q_{i,j,t} = \alpha + \beta' x_{i,j,t} + \delta_t + \varepsilon_{i,j,t},$$

where  $Q_{i,j,t}$  is the value associated with firm  $i$  in two-digit (ATECO 2007 CODE) industry  $j$  and year  $t$ ;  $X_{i,j,t}$  is a vector of predictors affecting the dependent variable; and  $\delta_t$  is a year fixed effect. Thus, our model includes a complete set of interactions between industry and year dummies to account for time-invariant heterogeneity across industries and time trends. This strategy is acceptable when within-firm variance is limited, and it is considered the best way to control for unobserved group-level heterogeneity, avoiding the “industry-adjust” or “average effects” alternative approaches (Gormley & Matsa, 2014). Moreover, all independent and control variables are lagged by 1 year to avoid simultaneity problems (Fang et al., 2018).

Although many empirical studies use only lagged independent and control variables to mitigate reverse causality, this strategy may not fully address endogeneity issues (Hill et al., 2021). Consequently, we followed Sanders and Hambrick's (2007) and Walters et al. (2010) approaches to deal with endogeneity. Specifically, we employed as our endogeneity control the predicted percentages of outside directors estimated by regressing the percentage of outside directors in  $t - 1$  on all control variables in  $t - 2$  used in our main empirical models and on industry and year dummies. Then, we calculated the predicted values of outside directors' percentages, which were included as an *endogeneity correction* in all our analyses.

## Results

### Main Results

Tables 1 and 2 report descriptive statistics and correlations. All correlations are below the threshold of 0.40 (except pure-family co-CEOs, mixed co-CEOs, and pure-outside co-CEOs, which are correlated with co-CEOs as a subsample of these cases), signaling little potential for collinearity problems. Nevertheless, we formally checked for the absence of multicollinearity via a variance inflation factor, using the typical threshold of 10, which is never exceeded across our models (Hair et al., 2006).

Table 3 reports the regression results. The estimated coefficients of the control variables are consistent with findings reported by prior studies. The results show that larger companies, the listed firms, and those with greater

**Table 1.** Descriptive Statistics.

Variables	Whole family firms		Exporting family firms (1)		Non exporting family firms (2)		Mean difference (1) - (2)	t-statistic
	Mean	SD	Mean	SD	Mean	SD		
Export ratio	.3413	.3455	.1964	.2462	.1512	.2331	-.0451***	-10.14
% Outside directors	.1832	.2433	.4861	.4998	.3828	.4861	-.1033***	-13.78
Co-CEOs	.4521	.4977	.6460	.4782	.5619	.4961	-.0841***	-11.45
Subsequent generations	.6182	.4858	.1697	.3754	.1158	.3200	-.0538***	-9.93
Mixed co-CEOs	.1519	.3590	.2873	.4525	.2336	.4231	-.0536***	-8.00
Pure-family co-CEOs	.2696	.4438	.0292	.1686	.0332	.1792	.0039	1.50
Pure-outside co-CEOs	.0305	.1722	3.2337	.7426	3.0089	.8421	-.2248***	-22.23
Ln age	3.1470	.7901	11.5192	1.1181	11.0356	1.3680	-.4836***	-29.58
Ln assets	11.3322	1.2433	.0453	.2081	.0157	.1246	-.0295***	-12.71
Listed	.0339	.1810	1.4765	.4355	1.3178	.4036	-.1587***	-21.71
Ln board size	1.4300	.4324	21.7175	18.3252	15.2741	16.8104	-6.4433***	-26.59
Leverage ratio	19.2811	18.0399	.0686	.0647	.0524	.0695	-.0162***	-18.07
Liquidity index	.0624	.0670	1.1450	2.1109	1.0289	2.8493	-.1160***	-3.55
Cost of debt	1.1006	2.4204	.1997	.2070	.2045	.2195	.0048	1.33
Female board members	.2011	.2107	13.7811	9.2872	12.5898	9.1234	-1.1912***	-7.50
Leader tenure	13.4329	9.2552	60.7809	12.3925	58.0319	13.2677	-2.7489***	-14.11
Leader age	59.8784	12.7517	.2329	.3751	.1982	.3640	-.0347***	-6.17
TMT ratio	.2215	.3718	.3076	.4615	.2018	.4013	-.1058***	-18.69
CEO ownership	.2667	.4422						

Note. \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.10$

**Table 2.** Correlation Matrix.

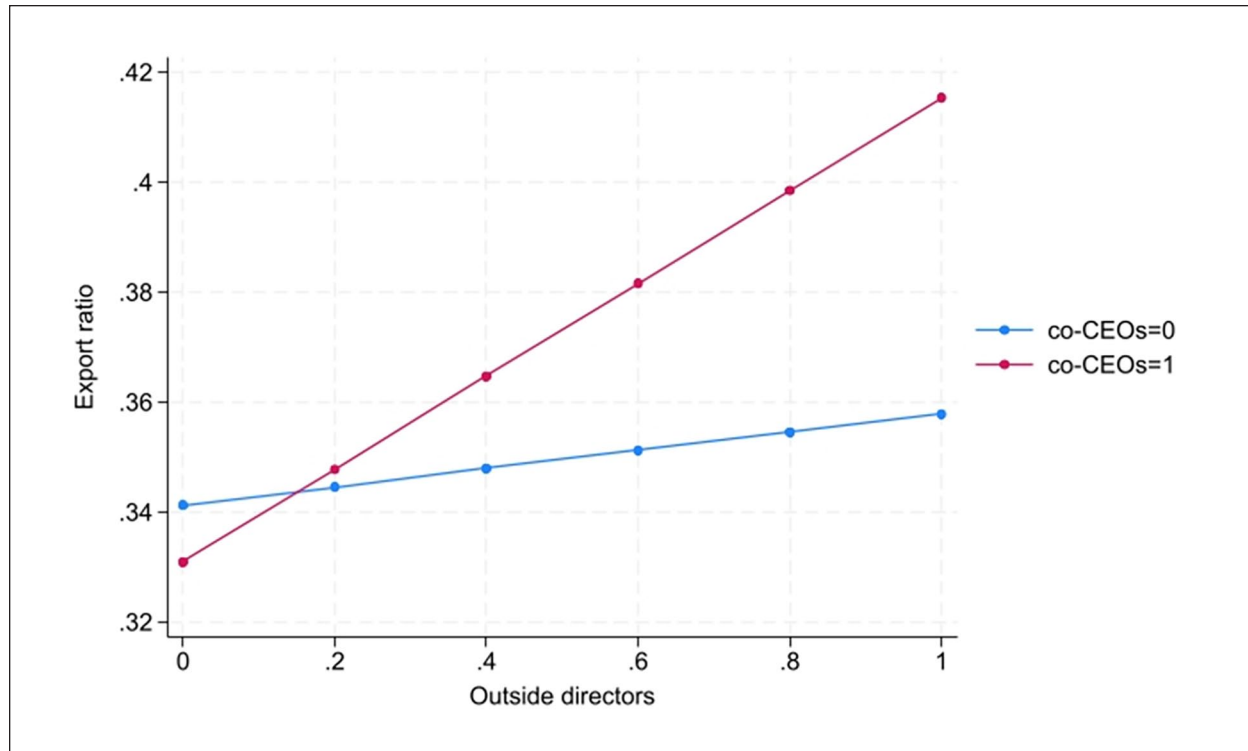
Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1. Export ratio	1																			
2. % Outside directors	.1326*	1																		
3. Co-CEOs	.0668*	-.2777*	1																	
4. Subsequent generations	.0821*	.0139*	.0084*	1																
5. Mixed co-CEOs	.0503*	-.0731*	.4764*	.0161*	1															
6. Pure-family co-CEOs	.0331*	-.2544*	.7216*	-.0177*	-.1898*	1														
7. Pure-outsider co-CEOs	.0037	.0291*	.1974*	.0421*	-.0516*	-.0787*	1													
8. Ln age	.1006*	-.0478*	.1309*	.1871*	.0476*	.1148*	-.0027	1												
9. Ln assets	.2430*	.2198*	.1073*	-.0755*	.0965*	.0274*	.0650*	.2102*	1											
10. Listed	.1403*	.1970*	-.0031	-.0070*	.0242*	-.0275*	.0170*	.0204*	.1832*	1										
11. Ln board size	.1832*	.3511*	.0455*	.0339*	.1549*	-.1016*	.0811*	.1140*	.3722*	.2588*	1									
12. Leverage ratio	.1293*	.0152*	.0482*	-.0047	.0254*	.0360*	.0011	.0896*	.2171*	.0515*	.0817*	1								
13. Liquidity index	.1464*	-.0145*	.0196*	-.0032	.0089*	.0151*	.0017	.0133*	.0157*	.0026	.0333*	-.0319*	1							
14. Cost of debt	.0488*	.0786*	-.0260*	.0125*	-.0064*	-.0294*	.0129*	-.0470*	.1822*	.0605*	.0743*	.3230*	-.0279*	1						
15. Female board members	-.0324*	-.1465*	.0044	.0199*	-.0670*	.0804*	-.0628*	.0639*	-.0495*	-.0381*	.0231*	-.0258*	.0184*	-.0332*	1					
16. Leader tenure	.0348*	-.1324*	.1544*	-.1289*	.0076*	.1914*	-.0850*	.3638*	.0035	-.0468*	-.0107*	.0099*	.0227*	-.0597*	.0725*	1				
17. Leader age	.0919*	-.0538*	.1406*	-.1875*	.0399*	.1348*	-.0080*	.2509*	.1894*	-.0207*	.1240*	.0442*	.0083*	-.0133*	.0331*	.4043*	1			
18. TMT ratio	.0447*	.2495*	.1009*	.0955*	.3625*	-.2765*	.3465*	-.0152*	.1691*	.0897*	.2099*	-.0001	-.0028	.0459*	-.1491*	-.2086*	-.0396*	1		
19. CEO ownership	.0698*	-.0929*	.2623*	-.0645*	.1524*	.1955*	-.0267*	.0993*	.1139*	.0110*	.0445*	.0594*	.0030	-.0187*	.0308*	-.0688*	.0426*	-.0188*	1	

Notes. \* Correlation is significant at 5% level ( $p < 0.05$ )

**Table 3.** The Moderating Impact of Co-CEOs/Different Types of Co-CEOs and Subsequent Generations on the Relationship Between Outside Directors and Export Ratio.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable: Export ratio	Full sample	Full sample	Full sample	Full sample	Subsequent generations	First generation
% Outside directors	0.0422*** (0.0002)	0.0420*** (0.0003)	0.0194 (0.1673)	0.0192 (0.1762)	0.0282 (0.1038)	0.0388 (0.1335)
Co-CEOs		-0.0004 (0.9374)	-0.0094 (0.1093)			
Co-CEOs × % Outside directors			0.0588*** (0.0040)			
Pure-family co-CEOs				-0.0052 (0.4140)	-0.0170** (0.0354)	0.0069 (0.5159)
% Outside directors × Pure-family co-CEOs				0.0115 (0.6555)	0.0259 (0.4183)	-0.0334 (0.4652)
Mixed				-0.0189** (0.0337)	-0.0263** (0.0190)	0.0347** (0.0309)
% Outside directors × Mixed				0.1275*** (0.0000)	0.1305*** (0.0004)	0.0749 (0.1428)
Pure outside co-CEOs				-0.0062 (0.7480)	-0.0174 (0.4050)	0.1129* (0.0631)
% Outside directors × Pure outside co-CEOs				0.0412 (0.4594)	0.0733 (0.2430)	-0.3017* (0.0658)
Ln age	0.0000 (0.9942)	0.0000 (0.9971)	-0.0002 (0.9596)	-0.0003 (0.9357)	-0.0057 (0.2018)	0.0037 (0.5514)
Ln assets	0.0498*** (0.0000)	0.0498*** (0.0000)	0.0498*** (0.0000)	0.0498*** (0.0000)	0.0510*** (0.0000)	0.0489*** (0.0000)
Listed	0.0913*** (0.0000)	0.0914*** (0.0000)	0.0904*** (0.0000)	0.0884*** (0.0000)	0.0857*** (0.0000)	0.0885*** (0.0003)
Ln board size	-0.0060 (0.3324)	-0.0059 (0.3384)	-0.0072 (0.2410)	-0.0066 (0.2885)	-0.0123 (0.1160)	-0.0033 (0.7618)
Leverage ratio	-0.0008*** (0.0000)	-0.0008*** (0.0000)	-0.0008*** (0.0000)	-0.0008*** (0.0000)	-0.0007*** (0.0009)	-0.0008** (0.0123)
Liquidity index	0.4700*** (0.0000)	0.4700*** (0.0000)	0.4739*** (0.0000)	0.4766*** (0.0000)	0.5841*** (0.0000)	0.4208*** (0.0000)
Cost of debt	0.0274*** (0.0000)	0.0274*** (0.0000)	0.0274*** (0.0000)	0.0271*** (0.0000)	0.0331*** (0.0000)	0.0216*** (0.0000)
Female board members	-0.0284*** (0.0055)	-0.0285*** (0.0055)	-0.0282*** (0.0061)	-0.0285*** (0.0056)	-0.0496*** (0.0001)	0.0503*** (0.0069)
Leader tenure	0.0002 (0.6084)	0.0002 (0.6121)	0.0002 (0.6221)	0.0002 (0.6136)	0.0010** (0.0216)	-0.0009 (0.1204)
Leader age	0.0002 (0.4254)	0.0002 (0.4265)	0.0002 (0.3615)	0.0002 (0.3786)	-0.0004 (0.1677)	0.0009*** (0.0074)
TMT ratio	-0.0087 (0.1959)	-0.0087 (0.1976)	-0.0077 (0.2550)	-0.0073 (0.3758)	0.0118 (0.2170)	-0.1042*** (0.0000)
Endogeneity correction	0.0169 (0.3203)	0.0173 (0.3285)	0.0162 (0.3583)	0.0163 (0.3636)	0.0396* (0.0650)	-0.0034 (0.9233)
CEO ownership	-0.0023 (0.5983)	-0.0022 (0.6370)	-0.0020 (0.6770)	-0.0023 (0.6272)	0.0020 (0.7367)	-0.0023 (0.7788)
Constant	-0.2733*** (0.0000)	-0.2734*** (0.0000)	-0.2672*** (0.0000)	-0.2673*** (0.0000)	-0.2458*** (0.0000)	-0.3255*** (0.0000)
Year dummies	Y	Y	Y	Y	Y	Y
Industry dummies	Y	Y	Y	Y	Y	Y
R-squared	0.5031	0.5031	0.5034	0.5038	0.5249	0.5207
Observations	14,423	14,423	14,423	14,423	9,306	5,117

Note. *p*-values in parentheses \*\*\**p* < .01, \*\**p* < .05, \**p* < .10.



**Figure 1.** Moderating Effect of Co-CEO Structures on the Relationship Between Outside Directors and Export Ratio.

cash reserves exhibit higher levels of internationalization. By contrast, leveraged companies and those with greater percentages of women directors exhibit relatively low levels of firm export.

As shown in Model 1, the *Percentage of Outside directors* exerts a positive effect on *Export ratio* (+0.0422;  $p < .001$ ), which is in accord with previous research (Arregle et al., 2012; Calabrò & Mussolino, 2013; Majocchi & Strange, 2012; Nam et al., 2018).

Hypothesis 1 predicts that the outsider ratio exerts a stronger positive effect on firm export under co-leadership rather than a solo CEO. Table 3, Model 3 reports a positive and significant coefficient for the interaction term of *co-CEOs*  $\times$  *Percentage of Outside directors* (+0.0588;  $p < .01$ ), providing strong support for Hypothesis 1. Figure 1 displays the moderating relationship, showing that a larger percentage of outside directors increases the levels of the *Export ratio* and that such a positive effect is greater under co-CEO structures than in solo-CEO structures.

Hypothesis 2 predicts that outside directors exert a stronger positive effect on firm export under Mixed (family and non-family) co-CEOships. Results for this hypothesis are reported in Model 4 of Table 3. This model shows that the interaction term comprising *Percentage of Outside directors* and the *mixed co-CEOs* is positive and statistically significant (+0.1275;  $p < .001$ ), while both the interaction terms between *Percentage of outside directors* and *pure-family co-CEOs* and *pure-outside co-CEOs* are not significant, providing support for the hypothesized effect.

Hypothesis 3 predicts that the positive effect of outside directors under mixed co-leadership is further magnified in family firms at their second or subsequent generations. These results are reported in Models 5 and 6 of Table 3, distinguishing two subsamples, second/subsequent generations (Model 5) and first generation (Model 6). The results show that, under subsequent generations (Model 5), the moderating effect of outside directors is positive and significant only in the scenario

of *mixed co-CEOship* (+0.1305;  $p < .001$ ), while under first family generations (Model 6), the coefficient is not significant. To further ascertain the results, we conducted a three-way interaction for differences in coefficients encompassing *the Percentage of Outside directors*, *Subsequent generations*, and the three types of co-CEOs models (*pure-family*, *mixed*, and *pure-outside*), which showed that the only significant 3-way moderating variable concerns the *mixed co-CEOship*. This result supports the hypothesized effect in our Hypothesis 3.

### Robustness Analyses

We performed several robustness tests to increase the confidence in our results.

First, we address a reverse causality issue with our analysis, according to which firms with better export ratios may be more likely to appoint or maintain outsider board members. In contrast, firms with worsening export ratios would avoid appointing outsider directors. To this end, we estimate a linear regression using outside board members as the dependent variable, the 1-year lagged export ratio as the key explanatory variable, and the same control variables of our primary analyses and firm fixed effects as additional controls. Our results indicate that the export ratio coefficient is negative but not statistically different from zero ( $p$ -value = .4). Neither do we find significant evidence of export ratio on outsider board ratio if we employ a 2-year export ratio lag (Amore et al., 2017). More generally, our results indicate that changes in leadership models are rare, and this evidence reduces the concern about endogenous changes relative to business conditions.

Second, while we adopted the Export ratio as our primary measure of internationalization, we explored the robustness of our findings by using the number of Foreign Direct Investments (FDIs) as a different dependent variable. Although we could use only a restricted 3-year time window (2016–2018, instead of the 2011–2018 period for the primary analyses), the results are unchanged (available upon request).

Finally, given that, in our sample, 70.8% of the companies are exporters (29.2% of the companies do not export their products/services) and, as descriptive statistics point out in Table 1, exporting companies significantly differ from non-exporting ones, supposing the export sales might be explained by dissimilarities in

characteristics between family exporting companies and family non-exporting companies. To tackle this potential endogeneity issue, we conduct a matched sample analysis using the propensity score matching of Rosenbaum and Rubin (1983).

To obtain a matched sample, we first estimate a logit model in which the binary dependent variable is whether or not a family firm is an exporting company. Second, each exporting family firm is matched with control firms. The control firms are non-exporting family firms with the nearest (the closest predicted propensity score) characteristics to the exporting family firms. Propensity score matching yields a matched sample of 354 treatment cases (exporting family firms) and 354 comparison cases (non-exporting family firms). Finally, we estimated the regression in Model 3 (see Table 3) based on the matched sample of firm-year observations.

The empirical results, which we do not show for brevity, confirm our main findings, suggesting that our empirical evidence is not likely to be driven by (observable) differences between the exporting and non-exporting family firms.

### Discussion

This study reveals that outside directors can significantly boost firm export, especially under co-leadership instead of a solo CEO. Delving deeper into co-leadership composition, it shows that the effect of outside directors is most pronounced under “mixed co-CEO” structures. In addition, the positive effect of mixed co-leadership is amplified in family generations after the first. These insights contribute to research on family businesses and agency theory at large. We outline both contributions below.

### Contributions to Family Business Research

This study contributes to the long-lasting, unresolved debate on the suitability of agency theory for family businesses. The applicability of agency theory to family firms has been highly debated. Some scholars suggest that close family ties offset information asymmetries and goal conflict, thereby rendering agency theory unfit for family businesses (Chrisman et al., 2004). Other scholars argue, instead, that close family ties are inconsequential for agency issues: delegation of power and

authority *per se* engenders agency problems, regardless of social ties (Cruz et al., 2010; Dalton et al., 2007). The mixed empirical findings have fuelled the conceptual controversy (Alayo et al., 2021; Arregle et al., 2021; Debellis et al., 2021).

This study challenges the extant agency framings for applying the standard agency model (i.e., a single agent) without considering the family firms' widespread use of co-leadership and the implications of such managerial arrangement for agency costs. By unveiling the co-agency problems implied in co-leadership, this study suggests that the influence of outside directors is not direct as previously assumed, but it is rather contingent on the managerial structure at the top, with outside directors having a stronger positive impact under co-leadership and a weaker impact under a solo-CEO structure. Hence, this study contributes: (a) conceptually, by elucidating the *specific dynamics of agency relationships in the family firms' co-agency*, refining the sources of agency costs and control needs in these firms; (b) empirically, by offering a potential explanation for the wide inconsistent findings observed in previous studies that overlooked the role of co-leadership.

This insight has implications for agency-based research in family businesses.

First, family firm scholars originally began illuminating the peculiar agency issues of family businesses, as implied in the principal opportunism (Schulze et al., 2001). By recognizing the family firms' widespread adoption of co-leadership (Miller et al., 2014), and its implications in terms of co-agency (Camyar, 2014; Roszkowska et al., 2023; Shapiro, 2005; Strøm, 2000), this study offers novel insights into the specific agency problems characterizing family firms. It conceptualizes a refined agent-agent conflict of co-leadership, clarifying the agency costs generated by co-CEOs in the face of the owner opportunism. In so doing, this study *illuminates the dynamics of principal-agent relationships in family firms featuring co-agency and principal opportunism, as a source of agency costs and monitoring needs in these firms*. Thus, it *highlights the co-leadership as a key factor that triggers and magnifies the owner opportunism originally envisaged by Schulze and colleagues (2001)*. Studies may expand on this framework, further advancing explanations of family firm behaviors as a result of board monitoring under varying levels of agent-agent conflict and owner

opportunism. Overall, this study moves ahead early efforts of agency theorists (Lubatkin et al., 2007; Schulze et al., 2001, 2003), offering a comprehensive, refined view of agency problems affecting family firms. It thus provides a promising new avenue for enriching our understanding of family firms' behaviors under varying managerial arrangements and in conditions of principal opportunism.

Second, by reconsidering agency issues in family businesses, this study refines the agency explanations of family firm behaviors in reference to firm export and a number of strategic decisions at large. Concerning firm export, it offers a possible explanation of why past studies relying on standard agency theory (thus neglecting the role of co-leadership for agency costs) may have yielded mixed results (Alayo et al., 2021; Arregle et al., 2021; Casprini et al., 2020). For example, while Calabrò and Mussolino (2013) report that the outsider ratio fosters the family firm's export intensity, Ilhan Nas and Kalaycioğlu (2016) find the opposite. Such studies test the agency theory via main effects, positing that the outsider ratio boosts firm export directly, with no reference to the underlying managerial structure at the top. This study posits instead that the outsider ratio acts as a *moderator*: Claiming that its effects are conditional on the co-agent structure (and its composition) reframes the agency problems in family firms and may ultimately help resolve these controversies. Future research can employ the co-agency framework to deepen knowledge of various dimensions of international business, such as the internationalization processes (De Massis, Frattini et al., 2018; Lin, 2012) or diversification (Xu et al., 2020; Zona et al., 2022).

Besides firm export, agency research on family firms yields mixed results for a vast variety of decision outcomes, such as R&D expenditures, innovation, and performance (Akram et al., 2022; Roed, 2016). For example, while Chen and Hsu (2009) find board independence to enhance R&D investing, Ashwin et al. (2015) find the opposite, that is, that family members (rather than outsiders) on the board boost such investments. By integrating co-agency, scholars may explore whether considering the influence of outside directors as a *moderator* helps reconcile these conflicting results. Overall, this study's framework on agent-agent conflict offers a new paradigm to examine board monitoring contingent on the (co-)leadership structures, opening up new avenues to study agency problems in family firms

and the effectiveness of governance mechanisms in their monitoring roles.

This study also advances family firm research on international corporate governance. Published studies are acknowledging the relevance of co-CEOs across countries, including Western economies (Arena et al., 2011; Cirillo et al., 2015; D. Miller et al., 2014) and Eastern countries/Asia (Banai & Tulimieri, 2024; Choi et al., 2018; Hong & Kim, 2022; Yoo et al., 2021). The refined co-agent framework may impact this consistent body of published research, offering a different agency perspective on why and how outside directors may affect decision outcomes across countries and institutional settings.

Third, this study's framework solicits new research combining agency and complementary theoretical perspectives (Boyd et al., 2011). One such example is the upper-echelon theory. While agency theory represents a theory of motivation and incentives, the upper-echelon theory (Hambrick & Mason, 1984) points to executives' ability and expertise. Recognizing that both incentives and ability are needed to explain behaviors (Hillman & Dalziel, 2003), scholars may build on the willingness-ability framework (De Massis et al., 2014) and explore how co-agency and co-CEOs' competence/expertise interact to affect family firms' decision-making. For example, the presence of co-CEOs having similar competence may accentuate co-CEOs' competition and the implied monitoring needs, whereas competence complementarity may diminish them. Alternatively, scholars may consider self-serving vs. collective motivations, combining this study's co-agency framework with stewardship theory (J. H. Davis et al., 1997) to explore the conditions under which co-leadership is capable of generating co-agent versus co-steward behaviors. For example, the finding that co-leadership consisting of family members only minimizes control needs evokes the idea that family co-CEOs may reinforce collective motivation, requiring empowering rather than monitoring, as stewardship theory maintains (J. H. Davis et al., 1997). Scholars may also explore the integration of this study's agency framework with SEW theory (Gomez-Mejia et al., 2011). For example, they may examine how an emphasis on SEW is altered under differing combinations of co-agent/s and owner opportunism, or explore whether the two dimensions of SEW preservation (Gómez-Mejia et al., 2007) and mixed gambling

(Gomez-Mejia et al., 2014) resonate differently under various board and managerial structures. Finally, regarding the resource dependence theory (Pfefer & Salancik, 1978), scholars may build on this study's framework of moderating effects to advance the long-standing research about the competing board roles of monitoring (an agency view) or resource provision (a resource dependence view) under differing solo-CEO versus co-CEOs managerial structures.

Overall, the refined view of agent-agent conflict offers a new paradigm to reconsider theory-multiplicity to study board functioning and performance under varying managerial arrangements.

A fourth contribution pertains to co-CEO composition and identities, as in Hypothesis 2. The extant research examining solo CEOs has been uncertain about which CEO identity, family or non-family, magnifies control needs (Villalonga et al., 2015). This study shows that, when distinguishing co-CEOs, one specific configuration, that is, mixed co-CEOships, magnifies control needs. Hence, rather than the presence of each CEO-type individually (family or non-family), the co-presence of both family and non-family CEOs magnifies agency costs. Building on the notion that co-leadership magnifies agency costs, future research may further refine our understanding in this domain. For example, scholars could examine the role of outside directors as co-leadership evolves over time, and the balance of family vs. non-family co-CEOs modifies. Alternatively, recognizing that mixed co-leadership (comprising family/non-family CEOs) may represent a good setting for an heir-apparent succession—whereby non-family CEOs assist young family successor(s) (Shen & Cannella, 2003)—researchers may explore board monitoring as these individuals interact in co-agency vis-à-vis the family principals. Finally, scholars could explore whether pay incentives differ for family vs. non-family co-CEOs under varying board and co-CEO structures, refining the existing research that has primarily focused on solo CEOs (Gomez-Mejia et al., 2003). For instance, scholars from economics examining co-agency suggest that collective pay schemas, linking an agent's rewards to the others, may be especially effective in tempering co-agency costs (Mookherjee, 1984). Thus, scholars may enquire into the effectiveness of these collective rewards for co-CEOs in family vs. non-family firms or family/non-family co-CEOs within family firms. Overall, the

theory and findings from Hypothesis 2 point out that, from an agency logic, mixed (family/non-family) co-leadership is especially detrimental to the firm outcome: motivational issues affecting mixed co-CEOships warn family principals against too easily calling on outside co-CEOs to support family co-CEOs.

A fifth implication concerns Hypothesis 3 about mixed co-leadership in the first versus the subsequent family generations. This study refines previous research, which has offered conflicting views on whether control needs are greater across generations (Bammens et al., 2008; Kerai et al., 2023; Singh & Delios, 2017; Villalonga & Amit, 2006). After including the notion of agent-agent conflict, this study shows that mixed co-leadership amplifies control needs, particularly in family generations after the first. This finding suggests that incorporating co-leadership is relevant for understanding the influence of outside directors as the family dynasty unfolds over time. Consequently, studying monitoring across generations without considering co-leadership, as much of the existing literature has done (Debellis et al., 2021), may lead to misleading conclusions. Scholars interested in exploring boards and agency problems across family generations are urged to explicitly consider the managerial structure through which the principal demands are conveyed.

In sum, in proposing the “agent-agent” paradigm, this study introduces a valuable new framework for agency research. It opens up fresh avenues to enhance our understanding of decisions and behaviors in family firms operating under different agency configurations.

### *Contributions to Agency Theory and Managerial Studies at Large*

This study expands upon traditional agency theory by introducing a new dimension beyond the well-established paradigms of principal-agent and principal-principal conflicts.

In the agency literature, scholars commonly recognize two primary agency problems: the “principal-agent” problem, in which one agent acts in their interest at the expense of the principal (Jensen & Meckling, 1976), and the “principal-principal” problem, where a dominant principal acts to the detriment of other principals (Young et al., 2008). While the principal-agent problem points to the foundational delegation of power

between two actors, the “principal-principal” problem arises from the composition of ownership (the principal configuration). Adding to these views, this study introduces a distinct agency problem: the “agent-agent” conflict, which arises from the composition of the agent structure (the agent configuration). In a multi-agent setting, co-agents may intensify their commitment to the demands of a dominant principal, even if such demands deviate from economic rationality and pose risks to the firm’s viability. Under owner opportunism (Jensen, 1994), this phenomenon results in increased agency costs to impair other agents, stakeholders, and the firm viability, requiring outside directors to foster firm decision outcomes. The co-agency problem above has several implications for agency research at large.

First, in management and finance studies, Jensen (1994) was the first to recognize the problem of the principal opportunism, where the principal can take actions which “harm themselves as well as those around them” (p. 43), but subsequent agency research mainly focused on the agent opportunism, leaving the principal side in the background for a long time. This study refines the agency framework, unveiling the agency costs and the monitoring needs jointly arising from co-agency and the principal opportunism. Drawing from this study, scholars can refine the agency problems encompassing both the co-agent and the principals’ conducts.

Second, this study elicits some reflections on agency problems in international endeavors. Building on the original work on internationalization by Sanders and Carpenter (1998), Singla et al. (2014) move beyond the public company to examine secondary agency problems, arguing that control needs are stronger in family businesses, particularly when family CEOs run these firms. Thus, they argue, non-family CEOs stifle agency problems, minimizing monitoring needs. By introducing agency problems implied in co-leadership, this study adds an interesting nuance to the above framework, suggesting that—rather than the family identity of the CEO per se—the co-presence of multiple CEOs, and particularly the joint presence of family and non-family co-CEOs (per Hypothesis 2), magnifies control needs to require effective monitoring mechanisms. Thus, adding to the Singla et al. (2014) view, not only the principal-side problems, but also the complexity on the agent side,

with the potential for agent-agent conflict, boosts agency costs. Future studies on internationalization may draw from this study to refine the understanding of agency issues for international decision-making and performance based on co-leadership structures.

Third, the “agent-agent” conflict points to a far-reaching agency problem, which may apply to a wide array of differing settings: subsidiaries of MNC headquarters (Hoenen & Kostova, 2015), sales managers of commercial enterprises (Echchakoui & Ghilal, 2019), affiliates of controlling firms in business groups (Yiu et al., 2007). Scholars can draw from this study to develop new research in these domains. For example, the notion of agent-agent conflict can help understand how multiple subsidiaries—as co-agents of a common MNC headquarters—compete for scarce resources and behave opportunistically as performance declines or exceeds certain thresholds (Miller & Chen, 2003; Mishina et al., 2010).

Fourth, this study can be of value to research on multiple-agency theory (Hoskisson et al., 2013). Scholars have begun studying multi-agency involving more actors simultaneously (Arthurs et al., 2008). That framework differs from ours, as it focuses on the multiple roles that one actor may enact, that is, an actor serving as an agent in one relationship and as a principal in another (Hoskisson et al., 2013). This study extends this line of inquiry beyond the actors’ roles, suggesting that conflicts can arise when multiple distinct co-agents are tied to a common principal. Scholars may draw from this study to refine their theoretical predictions further. Future research should apply the multi-agency framework offered by this study to alternative specifications of corporate strategies.

Insights and findings from the Hypotheses 2 have implications for research in other distinct domains, such as group fault-lines. Scholars in this domain point to the detriments of mixed group compositions (Zhang & Liu, 2019). While they draw from social categorization/social identity theories, this study indicates an additional nuance affecting these groups in terms of motivational forces, that is, the fuelled individual self-interests triggered by subgroup fault-lines. Scholars in that domain may draw from this study’s theory and findings to enrich the understanding of how group fault-lines affect their effective functioning and performance.

Regarding Hypothesis 3 combining co-agent and family ownership generations: while the extant research

typically focuses on the principal-agent or principal-principal problems *separately* (Purkayastha et al., 2019; Young et al., 2008), this study illuminates why the agency costs implied by principal-principal conflict are contingent on the managerial structure, indicating that principal-principal conflict must be examined jointly with the agent-agent conflict. Consequently, this study encourages a revision of existing agency research and paradigms in light of joint agent-agent and principal-principal conflict. While this study examines the identities of co-CEOs participating in co-leadership, future studies could investigate how the principal-principal and the agent-agent conflicts are jointly shaped by board monitoring under distinct principal-owners’ identities (Thomsen & Pedersen, 2000).

### Managerial Implications

Co-CEOs are a common feature among family firms and represent an often-adopted solution in current times. For example, a mixed co-leadership has been adopted by Brunello Cucinelli, OTB (Diesel Group) and Oniverse (Calzedonia Group). Attention on co-CEOships is growing worldwide and involves managerial arrangements beyond the very top of corporations to include managerial structures of subdivisions, as shown by the recent 2023 appointment in HSBC of David Liao and Surendra Roshia as co-CEOs in charge of its Asia Pacific division; or the appointment in Accenture of Atsushi Egawa and Ryoji Sekido as co-CEOs of its division in Asia.

In recent times, advisors, practitioners, and opinion leaders are propelling the adoption of co-CEOs as a valuable managerial practice, emphasizing the benefits it can bring to management under varying settings and circumstances (DeBiase, 2024; Feigen et al., 2022). This study unveils the possible perils implied by co-agency in the contexts whereby co-CEOs share a common influential principal-owner. As with any theoretical perspective, the present study only sheds some light on the actual phenomenon, where the reality is richer and involves multi-faceted dynamics. Hence, the findings from this study do not universally dismiss the co-leadership as a possible solution. Instead, it illuminates some risks implied in such an arrangement, especially when the dominant principal/owner is prone to self-serving opportunism. Hence, this study warns advisors and opinion leaders against overstating the benefits of co-CEOs, and it recommends a thorough and careful

examination of the setting in which co-CEOs come to operate, from both the agent and principal sides.

### Limitations

This study is not devoid of limitations. First, we conduct our inquiry in a single country while addressing a general agent-agent conflict. Therefore, we recommend caution when generalizing our results to other contexts. Furthermore, we examine our theory in the setting of family firms, whereby co-leadership is quite common. Future research may apply this study's theory and framework to other settings, such as MNCs and contractual relationships. Second, this study unpacks co-leadership by types, distinguishing family, outside, and mixed co-CEOships. Furthermore, the outside co-leadership (i.e., "Pure outside leadership") represents only 3.1% of observations, which could be a marginal percentage influencing the company's exporting choices. Aware that any co-leadership may surround differing compositional nuances, future studies may deepen our understanding of the specific features of any single co-leadership in terms of agent-agent conflict. Third, while we focus on outside directors, recent research has begun to investigate the competence and skills of individuals sitting on boards as a co-determinant of the monitoring function (Hillman & Dalziel, 2003). Future studies may examine how directors' expertise contributes to firm outcomes under differing managerial structures at the top. Fourth, as for the methodology, we do not directly measure agency costs (Ang et al., 2000; Calabrò et al., 2017; Florackis, 2008). Therefore, we recommend that in future research, a proxy that can consider agency costs should also be employed in the empirical analyses. Finally, while we run multiple tests to mitigate potential endogeneity, research on causal effects is undoubtedly warranted to determine the hypothesized effects of agent-agent conflict.

### Conclusion

This study advances agency theory by elaborating on the agent-agent conflict. It addresses this phenomenon in the context of family firms' co-leadership and exporting strategies. The study's findings document that the effect of outside directors is greater under co-leadership structures than solo CEOs, particularly when co-leadership comprises mixed co-CEOs, that is, family and non-family. In addition, this study examines whether these

effects change in family generations after the first when the principal-principal conflict among descending nuclear families arises. The empirical results suggest that the positive effects of outside directors under mixed co-leadership are magnified when family generations are subsequent to the first. This study reveals that the monitoring effects of outside directors are not immediately direct as previously believed (main effects) but are contingent on the managerial structure at the top and the principal/owner configurations.


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### Notes

1. *Altruism* has a dark side: it leads family principals to be overly generous with their relatives, generating free riding, shirking, selfishly action from the recipients (Lubatkin et al., 2007; Schulze et al., 2001, 2003). *Self-control* refers to one's ability to curb immediate impulses (Lubatkin et al., 2007): family principals are vulnerable to lose self-control and indulge in instant gratifications at the expense of the long-term welfare of the firm as a whole. While planning for the long-term survival and success, they constantly fail to act consistently in this direction and indulge short-term consumption under the belief that such behaviors are acceptable. These problems are salient in family firms due to (a) incommensurability of noneconomic utilities (i.e., it is impossible to measure the comparative values of noneconomic vs. economic utilities) and (b) high discretion of family principals in choosing between economic and noneconomic alternatives (Lubatkin et al., 2007).
2. It has been recognized that some family principals *willingly* subjugate their actions to the inputs of independent others, such as outside directors (Sharma, 2004). In so doing, they seek to rationally temper, ex-ante, their future familial biases and impulses (Lubatkin et al., 2007).

Thus, “the independence criterion refers more on the independence from the owner family (or the main decision-maker)” (Calabrò & Mussolino, 2013, p. 376).

3. It has been noted that “many firms worldwide, especially family firms, employ co-CEO structures” (Miller et al., 2014, p. 552). Co-leadership is present in the US, mostly in smaller, private firms. About 20% of surveyed U.S. family firms reported co-CEOs in 2007 (Frauenheim, 2009). In addition, about 42% of U.S. family firms with at least \$1 million in sales considered employing co-CEOs (MassMutual et al., 2007). Co-CEO structures are present in public firms involved in mergers and acquisitions (Arena et al., 2011). They are becoming common among publicly traded firms, with a slight increase in firms adopting this structure over time (Zillman, 2014).
4. Co-leadership has been also examined through other lens, such as the unity of command (Mintzberg, 1989) or the complementary cognitive resources (O’Toole et al., 2002) perspectives.
5. The aberrant behaviors of any co-CEO may ultimately turn into reduced performance and/or sanctions for the whole team that shares responsibility at the top, negatively affecting an individual co-CEO’s utility in terms of pay-losses, greater employment risk, market sanctions, legal responsibilities.
6. Scholars over time have maintained that the needs of board monitoring are greater under a family or a non-family CEO. Some scholars apply the standard agency rational of agent opportunism to suggest that monitoring is more needed under a non-family CEO. Others suggest instead that monitoring is more needed under a family CEO, due to aberrant behaviors such as shirking, entrenchment, or nepotism in hiring policies, all phenomena which typically accompany family ties (see Villalonga et al., 2015 for a review).

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