ESG Pay in Family Firms: Governance Matters

Abstract:

This study examines the adoption of Environmental, Social, and Governance (ESG) criteria in executive compensation (ESG pay), focusing on how family ownership and corporate governance practices influence this process. Grounded in Agency, Socioemotional Wealth (SEW), and Signaling theories, we investigate competing propositions on how family firms implement ESG pay. While SEW suggests that family firms are less likely than non-family firms to adopt ESG pay, agency and signaling would posit the opposite. Using a dataset of 3,587 publicly traded firms from 2012 to 2020, including 1,084 family firms, our findings indicate that family firms are generally less likely to implement ESG pay than non-family firms, supporting the SEW perspective. Importantly, governance factors such as board independence and CEO duality significantly moderate this relationship by increasing the likelihood of implementing ESG pay in family firms when the board includes a greater proportion of independent members, and the CEO does hold the board chair role. Additionally, family CEOs are more likely to receive ESG pay, potentially due to greater discretion over firm resources. These results underscore the complex interplay between family ownership, governance, and non-financial performance indicators like ESG pay.

Keywords: ESG metrics; executive compensation; family ownership, CEO duality, board independence, family CEO

Introduction:

Environmental, Social, and Governance criteria in executive compensation contracts (hereafter "ESG pay") represent a strategic opportunity for different intertwined and non-mutually exclusive purposes. These include implementing efficient incentive contracting, aligning managerial objectives with the interests of shareholders, and strengthening the credibility of a company's ESG commitments and pledges.

Despite extensive research on the motives behind ESG pay and its implications (e.g., Cohen et al., 2023; Flammer et al., 2019), the role of internal factors such as ownership structure has been overlooked. The presence of controlling owners, particularly in family-owned firms, is a crucial aspect of governance (Villalonga & Amit, 2006). The fact that 33% of S&P 500 firms are family-controlled (Anderson & Reeb, 2003) underscores their significance. Building on Flammer et al. (2019), we argue that ownership structure influences the antecedents of ESG pay, thus underscoring the pivotal role of governance "G" in ESG studies. In addition, it is unclear whether family firms will be driven to adopt ESG pay. The tension between their unique agency dynamics, reputation concerns, and socioemotional endowment introduces ambiguity: will family firms adopt ESG pay metrics more readily or resist them?

In family firms, even those publicly traded, owners not only wield significant control but also typically prioritize non-financial goals, reflecting their socioemotional wealth (SEW) (Gomez-Mejia et al., 2007) and aversion to loss (Berrone et al., 2012). This distinct ownership dynamic (Gomez-Mejia et al., 2010) is critical to understanding how family-controlled firms engage with executive compensation (Cruz et al., 2010). ESG pay in family firms presents unique governance challenges. On the one hand, ESG metrics may address conflicts between controlling owners and minority shareholders (Ashraf et al., 2020; Villalonga & Amit, 2006),

mitigate family altruistic agency costs (Block, 2012; Schulze et al., 2001), and improve the family firm's reputation by signaling a commitment to improving ESG outcomes.

On the other hand, the reduced type I agency problems in family firms and the SEW perspective suggest that family owners might view such incentives as unnecessary, given their presumed long-term focus (Briano-Turrent et al., 2023; Kallmuenzer & Veider, 2015; Tseng, 2020) and commitment to social and environmental welfare (Bhatnagar et al., 2020; Cennamo et al., 2012; Gomez-Mejia et al., 2010; van Gils et al., 2014) that goes beyond symbolic gestures or "box-checking" uses that do not directly address substantive environmental impacts (Dyck et al., 2024). Based on the contrasting arguments of agency theory versus SEW, and short of empirical evidence to date, we start by presenting competing hypotheses regarding the main relationship between family control and ESG pay.

Because corporate governance mechanisms are important for ESG pay adoption (Homroy et al., 2023; Zhu et al., 2023), we also explore key boundary conditions concerning essential governance practices such as board independence, CEO duality, and the CEO's family membership. Having a sufficient proportion of independent board members and separating the CEO role from family membership or board chair roles are key indicators of good governance (Aguilera et al., 2018; Misangyi & Acharya, 2014; Witt et al., 2022). Despite family firms often avoiding these practices (Beji et al., 2021; Davila et al., 2023), their importance for good board functioning and decision-making leads us to hypothesize that they will have significant positive moderation effects. Specifically, we expect board independence and CEO duality to strengthen the main effect of family control on ESG pay. Additionally, because CEOs in family firms are often family members, we analyze how this condition impacts ESG pay. Based on SEW, we expect that family CEOs are less likely to get ESG pay.

To test our hypotheses empirically, we create a unique dataset of publicly traded companies by merging the NRG Metrics and ISS ECA databases, obtaining a large set of

international public firms. Comprising information from 2012 to 2020, the combined number of firms is 3,587, of which 1,084 are FFs. Our dependent variable, *ESG Pay,* is an indicator that equals one if the company's CEO compensation includes any ESG criterion (e.g., carbon emission reduction, environment compliance, safety, governance, people, compliance, CSR, diversity, culture). The key independent variable is the family firm (*Fam firm*), initially defined as the family being the largest controlling shareholder, with at least 10% of shares. Our findings support our main and moderator hypotheses and withstand multiple robustness checks ranging from varying definitions of our key variables to using propensity score matching (PSM) to mitigate the possibility of selection bias on observable factors (DesJardine & Durand, 2020).

This study makes several contributions. First, we contribute to the governance aspects of the ESG debate by building on previous work (e.g., Flammer et al., 2019) and providing evidence that ownership structure significantly influences the antecedents of ESG pay, reflecting the significance of addressing the "G" within ESG studies. Second, we add to the ownership literature on how family-owned companies, a large proportion of firms worldwide, approach paying their leaders for ESG-responsible efforts, and find that family firms may not use compensation mechanisms for sustainable goals. This evidence bridges research from two management domains and expands previous research on executive compensation in family firms that use single-country data. Third, we address the call for papers that use family business theories to better understand executive compensation in family firms (Michiels et al., 2022). Lastly, the findings should inform policymakers, practitioners, and family firms seeking to reinforce sustainability practices.

2. Theory

2.1 ESG pay in family firms vs non-family firms

Previous studies have predominantly examined the motives behind ESG pay for executives and its implications, to the detriment of essential organizational variables like ownership. This oversight is particularly relevant given the influence of controlling owners, especially in family-owned firms (Villalonga, 2018; Villalonga & Amit, 2006).

Research suggests that a firm's ownership structure significantly shapes executive incentives (Jaskiewicz, Block, Combs, et al., 2017; Jaskiewicz, Block, Miller, et al., 2017; Tosi et al., 2000); with recent work linking a firm's ESG/CSR profile to its owners' characteristics (Gillan et al., 2021). Ownership impacts compensation strategies in family firms, reflecting the unique motivations, capabilities, and mechanisms in these organizations (Michiels et al., 2022). While numerous studies suggest a positive correlation between family ownership and proactive ESG actions and ESG performance, the extent to which these firms adopt ESG pay to enhance ESG compliance remains unknown.

The logic for family firms to adopt ESG metrics in executive contracts interplays a complex scenario characterized by their unique agency dynamics, reputation concerns, and socioemotional endowments. First, family firms are characterized by reduced Type I agency problems (Villalonga & Amit, 2006), given that managers and owners often overlap. This suggests family firms might not need additional incentive alignments, such as special KPIs in CEO compensation. However, incentive contracting through ESG metrics can still be relevant to align the goals of family managers with long-term ESG performance, ensuring that personal interests (Block, 2012; Lubatkin et al., 2005; Schulze et al., 2001) do not overshadow broader ESG objectives. In addition, given the potential for higher Type II agency costs due to disagreements between controlling owners and minority shareholders (Ashraf et al., 2020; Singla et al., 2014; Villalonga & Amit, 2006), implementing ESG pay can serve as a tool to

align their interests. By tying executive compensation to ESG outcomes, family firms can demonstrate commitment to ESG principles, thereby reducing conflicts and increasing trust among minority shareholders. For minority shareholders who may have intrinsic preferences for ESG outcomes (Hartzmark & Sussman, 2019), adopting ESG pay can align the business's management with these preferences, increasing shareholder satisfaction and potentially attracting more like-minded investors (Hart & Zingales, 2022; Pástor et al., 2021).

Second, integrating ESG metrics in executive compensation can effectively signal a commitment to ESG outcomes. While family firms emphasize symbolic actions toward business trends to gain legitimacy (Liu et al., 2023), these measures alone have a weaker positive effect on organizational legitimacy than when they are implemented with substantive programs (Berrone et al., 2009; Truong Ceren et al., 2021). Therefore, ESG pay incentives could yield more credibility and trust as responsible corporate citizens, enhancing the firm's reputation and fostering better regulatory relationships (Hartzmark & Sussman, 2019). The direct association between the firm and family members heightens the importance of reputation for family owners, motivating them to signal to external audiences a genuine commitment to ESG outcomes (Chaudhary et al., 2021). In general, implementing ESG pay should counteract perceptions of "greenwashing" by holding both family and non-family managers accountable for ESG performance, thus reinforcing the firm's long-term strategic goals and sustainability.

Third, family firms will find it easier to adopt ESG pay due to their distinctive governance practices, such as placing family members on the board (Feldman et al., 2024; Gentry et al., 2016). In contrast, widely held public firms may be challenged to achieve board consensus on ESG pay.

In summary, family firms leverage their reduced Type I agency costs, address Type II agency conflicts, enhance signaling benefits, and utilize their strategic implementation power

to align management and stakeholder interests with long-term ESG goals. These rationales lead us to propose the following hypothesis:

Hypothesis 1a: Family firms are more likely to implement ESG pay than non-family firms.

In contrast to our previous arguments, socioemotional wealth (Gomez-Mejia et al., 2007) is a key concept in family business research that explains decision-making in family firms. It emphasizes family members' emotional and relational investments, valuing family control, identity, legacy, and financial goals (Berrone et al., 2012; Cruz & Arredondo, 2016; Gomez-Mejia et al., 2010). From the SEW viewpoint, family firms' long-term orientation (Briano-Turrent et al., 2023; Kallmuenzer & Veider, 2015; Tseng, 2020) may not align with ESG pay metrics. Family firms might view their long-term commitment as inherently including responsible stewardship, potentially rendering ESG pay unnecessary as these incentives might deter steward behavior (Madison et al., 2016) or misalign with their holistic business approach. For example, ESG contracts guide managers to prioritize long-term but less visible stakeholders, like society and the environment (Flammer et al 2019). Yet, family firms tend to address the needs of these groups (Abeysekera & Fernando, 2020; Berrone et al., 2023) and engage in environment-substantive compliance (Dyck et al., 2024; Gomez-Mejia et al., 2010), making ESG pay redundant.

In addition, implementing ESG pay can conflict with established compensation practices and disrupt traditional governance (Murphy & Trefftzs Chair, 2012), potentially causing family members to lose control. For instance, implementing ESG pay may involve adjusting the firm's compensation scheme and disclosure (Tharp, 2024) or its operational practices (Flammer et al., 2019) to align these compensation metrics with its sustainability goals. For family firms, these changes often imply bringing in external professionals, which can significantly alter traditional practices and decision-making. Consequently, family

members may feel a loss of control due to new incentives and shifts in governance structure. Altogether, from a SEW viewpoint, we hypothesize that:

Hypothesis 1b: Family firms are less likely to implement ESG pay than non-family firms.

2.2 Corporate Governance Factors

In the previous section, we argue that family ownership is an antecedent of ESG pay and present contrasting views on how family control influences ESG pay. In this section, we discuss how corporate governance practices moderate the relationship between family ownership and ESG pay.

Since corporate governance influences executive compensation and ESG pay adoption (Zhu et al., 2023), we investigate essential boundary conditions linked to governance practices. We focus on board independence, often avoided in family firms (Beji et al., 2021; Davila et al., 2023), CEO duality, and CEO family affiliation. These factors can significantly influence board functioning and decision-making, thereby altering the dynamics of how family firms approach ESG pay.

2.2.1 Board Independence

Board independence is recognized as a fundamental element of effective corporate governance, enhancing transparency and accountability within firms (Aguilera et al., 2018; Misangyi & Acharya, 2014; Witt et al., 2022). In the context of family firms, which often exhibit unique governance structures characterized by a high presence of family members on the board (Gentry et al., 2016), independent directors play a critical role in balancing family interests with corporate governance standards.

Family firms are generally slower in adopting board independence practices than non-family firms (Shaw et al., 2021). This reluctance stems from the preference to appoint directors that align with the family values to preserve their SEW (Mubarka & Kammerlander, 2023).

However, as family firms grow and face external pressures, there is a gradual shift towards embracing board diversity and competencies beyond familial ties (Dibrell et al., 2019), which allows them to incorporate independent directors who bring a clearer perspective on the most relevant corporate issues, such as sustainability.

The presence of independent directors is particularly significant in the domain of ESG practices. ESG pay is critical as it directly influences corporate behavior toward sustainability goals (Flammer et al., 2019; Homroy et al., 2023). Independent directors, with their external perspectives and expertise, can play a pivotal role in aligning the firm's strategic objectives with ESG pay, thus practicing their skills in enhancing the firm's credibility (Arora, 2018).

In family firms, independent directors adhering to good governance practices can advocate for implementing ESG pay structures. This is expected because ESG bonuses reinforce the firm's commitment to long-term vision (Gentry et al., 2016; Gomez-Mejia et al., 2010) and serve as a countermeasure to potential criticisms of greenwashing. By incentivizing ESG goals, independent directors help bridge the gap between the firm's SEW-oriented goals and the increasing demand for corporate accountability (Gillan et al., 2021) and transparency in environmental and social issues. This motivates the following hypothesis:

Hypothesis 2: A greater ratio of board independence positively moderates the relationship between family control and ESG pay.

2.2.2 CEO Duality

CEO duality—where the CEO also serves as the board chairperson—helps mitigate principal problems by concentrating power and decision-making authority in the CEO's hands (Li et al., 2024). This structural overlap might enhance the CEO's ability to impose personal preferences and strategic biases (Krause et al., 2014) and/or provide clear leadership that facilitates decisions (Braun & Sharma, 2007). External pressures typically discourage CEO

duality, prompting organizations to separate the roles of CEO and board chair to reinforce accountability, diminish conflicts of interest, and adhere to corporate governance best practices (Aguilera et al., 2018; Misangyi & Acharya, 2014; Witt et al., 2022).

CEO duality is associated with varying effects in different contexts. In non-family firms, the concentration of power associated with CEO duality has been linked to decreased accountability (Misangyi & Acharya, 2014), worse CSR (de Villiers et al., 2011), and equivocal evidence on firm performance (Elsayed, 2007) In fact, the impact of CEO duality in family firms has shown inconclusive effects on environmental performance (Gomez-Mejia et al., 2010)

Despite mixed evidence of the influence of CEO duality in family and nonfamily firms, we argue that, in family firms, CEO duality can strengthen the alignment of ESG objectives with ESG pay, even for CEOs with no family ties. In the case of external CEOs, ESG pay can serve as an alignment mechanism between managers and owners (Jensen & Meckling, 1976), with CEO duality likely facilitating bonuses oriented toward achieving the long-term legacy of the family business.

Similarly, family CEOs' dual role affords them the unique opportunity to leverage their family values and leadership roles (Braun & Sharma, 2007) to promote responsible and sustainable practices. This condition might give them the power to implement ESG pay in accordance with their vision without risking family control, providing a conducive environment for the adoption of ESG-oriented compensation practices.

Hypothesis 3: CEO duality positively moderates the relationship between family control and ESG pay.

2.3.2 CEO with family affiliations

Research on family CEOs and compensation practices has shown mixed results. For example, CEOs typically receive lower compensation than their non-family counterparts (Bozec & Vito, 2023; Gomez-Mejia et al., 2003), a trend that notably reverses in emerging markets (Chen et al., 2021). These findings raise questions about the underlying factors influencing compensation practices in family firms, particularly in the context of performance incentives like ESG pay.

SEW and agency theories suggest that when CEOs have family ties, the likelihood of considering ESG pay might diminish compared to their professional counterparts. First, agency theory provides a lens through which to view the reluctance of family CEOs to embrace ESG pay. Unlike non-family CEOs, who are often incentivized through performance-linked compensation to align their interests with those of shareholders (Combs et al., 2010), family CEOs may not require such alignment mechanisms. In principle, their interests align with the company's long-term success. Consequently, introducing ESG pay could be considered a good mechanism only for non-family CEOs.

Second, family CEOs are vested in preserving family control and maintaining the family legacy, which extends beyond mere financial performance (Berrone et al., 2012). As we discuss in the previous section, CEOs with family ties might perceive ESG pay as a potential threat to their autonomy, particularly if these metrics impose constraints that could dilute the family's influence over corporate decisions.

Third, family CEOs often experience longer leadership periods (Chang & Shim, 2015) than external CEOs. This extended tenure gives them the time and stability to undertake and see through positive net present value ESG projects, even without incremental incentives from ESG pay. Unlike public companies, where shorter tenures may hinder the implementation of major ESG initiatives and the realization of associated benefits, family firms with longer family

CEO tenures are better positioned to integrate sustainability practices as part of their core strategy, aligning with their values and long-term vision for the business (Ortiz-de-Mandojana et al., 2019).

If family CEOs experience reduced agency conflicts, resist ESG-related compensation due to their interest in preserving socioemotional wealth, and have prolonged tenure, we hypothesize that:

Hypothesis 4: In family firms, family CEOs are less likely to receive ESG pay than professional /external CEOs.

3. Data

3.1 Data Construction

We integrated data from multiple sources to construct a dataset on executive ESG pay across multiple countries, encompassing family and non-family publicly traded companies. Our primary sources were the NRG Metrics Family Firms Dataset and ISS ECA. The NRG dataset is a comprehensive compilation by expert analysts from publicly available documents, categorizing firms as family or non-family based on their ownership structure and providing information about corporate governance practices and executives' profiles. We combined this with data from ISS ECA, which offers detailed insights into incentive awards, including performance metrics, goals, and payout structures for global companies. Additionally, we complemented our dataset with several control variables, including institutional ownership information from FactSet/LionShares, accounting and market data from Datastream/Compustat, and commercial ESG ratings from Refinitiv.

Appendix A specifies the sample selection procedure. Our initial dataset comprises 29,141 firm-year observations from the NRG data set. Firms must be publicly traded and covered by the ISS ECA, Datastream, and FactSet/LionShares databases to be included in the

sample. After a careful matching protocol and exclusion of data from the financial industry, our dataset yields 17,652 firm-year observations spanning from 2012 to 2020, representing 3,587 firms of which 1,084 (30%) are identified as family firms. Geographically, these firms are spread across 23 countries, with approximately 32% of our sample incorporating ESG criteria into executive compensation. Correlation analyses among the main variables are presented in Table 1, showing expected relationships.

3.2 Variable Definitions:

Dependent Variable: *ESG pay* is a dummy variable that captures the extent a firm includes in executive pay Environmental, Social, and Governance (ESG) dimensions within a given fiscal year. It is derived by aggregating binary indicators for multiple ESG categories, including carbon emissions reductions, environmental compliance, CSR community, safety, customer focus initiatives, governance, compliance with ethical standards, employee well-being, and diversity (Flammer et al., 2019).

Independent and Moderators Variables:

Family firm: This dummy variable is set to one when a family is the largest controlling shareholder, holding at least 10% of shares. For robustness, we also use other definitions, including the most considered in the literature, which is a family firm is where the founder, a descendant of the founder, or another family member is an officer, director, or blockholder (with beneficial ownership exceeding 5%), either individually or as a group.

Board independence: defined as the ratio of independent directors to total board size. Independent directors are those who do not have a material relationship with the company, its executives, or its shareholders that could influence their judgment. This typically means they are not current or former employees, do not have significant business dealings with the company, and are not family members of key executives.

CEO duality: Set to one if the CEO is also the board chairman, capturing the CEO's power within the firm.

CEO with family ties: Marks whether the CEO is from the founding family (Chen et al., 2021), suggesting a potential familial influence on governance and compensation.

Control variables:

We control for *CEO tenure* and *female CEO* to capture how the CEO's personal and professional attributes might influence ESG pay. To account for board and governance mechanisms, we include three dummy variables. Each variable equals one if the firm has a *remuneration committee*, a *corporate governance committee*, or a *CSR committee*. These committees indicate governance quality and a focus on social responsibility, likely influencing ESG-related compensation strategies. We also add *the number of family members on the board, which* denotes family involvement in governance, affecting values and ESG pay-related decisions.

At the firm level, we control for firm size measured by *log (Total Assets), profitability measured by ROA, leverage, tangibility, log (Book-to-Market), and dividends*. Each reflects different aspects of firm size, financial health, and market perspectives, which are important as they could affect the capacity and strategy towards ESG pay. We add institutional ownership, volatility, industry, year, and country to control for market and external variables. These account for external pressures and the regulatory and market environment, which can significantly determine ESG policies. Lastly, we conducted several robustness checks (not tabulated) by modifying our models and incorporating additional variables such as the ESG score capital expenditure, return, volatility, and sales.

3.3. Estimation technique:

We employ Ordinary Least Squares (OLS) regression to test our hypotheses, controlling for unobserved heterogeneity through year, country, and industry fixed effects. To mitigate reverse causality concerns, all independent variables are lagged by one year. We also winsorize our continuous variables to reduce the influence of outliers in our analysis.

3.2 Summary statistics and trends in ESG Pay and firm ownership:

Table 1 illustrates a significant negative correlation between family firms and ESG Pay. Table 2, Panel A provides descriptive statistics for the selected variables. Note that 24% of the final sample are family firms, and the mean of ESG Pay is 0.326, which indicates that approximately 33% of worldwide companies use ESG criteria in executive compensation. Table 2, Panel B provides mean-difference tests of family and non-family firms and shows that both groups differ statistically for most of the selected variables.

Table 3 shows the sample distribution by country, illustrating the number of firm-year observations for family firms and firm-year observations for ESG pay. Figure 1 illustrates the progression of ESG pay overtime and shows that ESG pay is on the rise. In 2012, merely 21% of global companies embraced it, a figure that surged to 40% by 2020. Nevertheless, the adoption rate among family firms shows more modest growth, increasing from 2% in 2012 to 4% in 2020.

Insert Tables 1, 2, 3, and Figure 1

3.3 Results from regressions:

Table 4 presents the analysis of how family firm characteristics and governance structures influence the implementation of ESG pay. Models 1 and 2, which include only control variables, establish that factors such as board independence, CEO duality, CEO tenure,

firm size, profitability, leverage, tangibility, and various governance committees significantly impact ESG pay. Notably, family firms (where the largest controlling shareholder holds at least 10%) are less likely to implement ESG pay, as evidenced by Model 3: the statistically significant negative coefficient ($\beta = -0.060$, $p < 0.01$) supports hypothesis 1b. Model 4 reveals that contrary to our H2, board independence in family firms further reduces the likelihood of adopting ESG pay, with a negative and significant interaction term ($\beta = -0.001$, $p < 0.01$). However, this result is reversed, as we predict when using PSM models. Model 5 indicates that in family firms where the CEO also serves as the board chair (CEO duality), there is a significant positive interaction effect ($\beta = 0.041$, $p < 0.10$), suggesting that when the CEO does hold the board chair role, there is a higher likelihood of ESG pay in family firms, as expected in H3. Lastly, Model 6 examines the focus on the effect of a CEO with family ties within the subsample of family firms. The positive and significant coefficient ($\beta = 0.039$, $p < 0.10$) suggests that family firms with a CEO with family ties are more likely to adopt ESG pay, contradicting H4.

Overall, these results underscore the complex interplay between family control and governance structures. While family firms generally resist ESG pay, specific governance configurations like CEO duality can counteract this tendency. In the specific case of family firms, CEOs with family ties increase the adoption of ESG pay.

***Insert Tables 4 ***

4. Robustness checks

To check the robustness of our results, we perform several matching procedures to control for observable characteristics that could influence the treatment (family firm status) and the outcome (ESG pay). First, we use nearest-neighbor matching to create comparable treatment and control groups by estimating the probability of a subject being in the treatment group based on observed covariates. Our covariates include CEO tenure, CEO duality, board

independence, eponymous firm status, the presence of a remuneration committee, corporate governance committee, CSR committee, firm size, profitability, leverage, tangibility, book-to-market ratio, dividends, and institutional ownership. Second, we employ PSM (probit and logit models) to estimate the propensity scores, which are then used to create matched samples. We conduct balancing checks (Appendix B) to ensure the quality of the matching process and perform regressions on the matched samples (PSM probit) to estimate the impact of family firm characteristics on ESG Pay. Results in Table 5 are consistent with those of our main models and thus provide further support for the stated hypotheses.

Insert Table 5

We examine the predictive margins of ESG pay for board independence and CEO duality in family and non-family firms. Figure 2 shows the role of board independence, indicating that in non-family firms, an increase in board independence correlates with a slight increase in the predicted ESG pay. Conversely, within family firms, a greater proportion of board independence attenuates the adverse effects of family ownership on ESG pay, resulting in a less pronounced decline relative to firms with lower board independence. These findings suggest that boards with a higher proportion of independent members have a favorable impact on ESG pay, particularly in the context of family firms.

Figure 3 provides insights into the effects of CEO duality, revealing that in non-family firms, the presence of CEO duality is associated with a marginally higher ESG pay. This suggests a minor positive influence of CEO duality on the predicted ESG pay for non-family firms. In contrast, within family firms, CEO duality, where the CEO also serves as the chairperson, mitigates the decline in the linear prediction of ESG pay more effectively than in firms without CEO duality. This finding indicates that CEO duality may alleviate some of the inherent resistance of family firms toward adopting ESG pay practices.

Insert Figures 2 and 3

5. Discussion and Contributions (work in progress…)

ESG Pay is an increasingly prevalent phenomenon (Cohen et al., 2023; Flammer et al., 2019). In this study, we address antecedents of ESG pay, particularly related to firm's ownership structure and family control, which is a critical gap in ESG studies. For this purpose, we have created a novel dataset covering worldwide family and non-family publicly traded firms during a 9-year period (2012-2020). Our main result indicates that ownership matters substantially for ESG pay adoption.

Consistent with the SEW perspective, our findings support hypothesis 1b; that is, we found that family-controlled firms are less likely to implement ESG pay. The family's commitment to long-term sustainability, rooted in emotional wealth, diminishes the impact and necessity of external incentives. We also explore boundary conditions, examining the influence of corporate governance factors on ESG pay. First, we argue and find that family firms with a higher percentage of board independence are more likely to embrace ESG pay; we found support for this when matching samples through PSM and using regression models. Board independence enhances transparency, mitigates conflicts of interest, and aligns family firms with external stakeholders, strengthening the relationship with ESG-oriented compensation (hypothesis 2).

Second, our results support hypothesis 3, which states that in family firms, the dual role of the CEO as both a board member and leader fosters a stronger commitment to ESG objectives, potentially making ESG pay a plausible mechanism to reinforce sustainable practices compared to non-family firms. Finally, contrary to our expectations, we found family CEOs are more likely to implement ESG pay. One possible explanation is that CEOs with family connections might have more control over firm resources, leading to potential self-

serving nepotism (Chen et al., 2021). These family-affiliated CEOs can secure entrenched positions, allowing them to extract additional managerial benefits (Bebchuk et al., 2022) Incorporating ESG metrics into compensation contracts might serve as a cover for excessive managerial compensation, as it is challenging for outsiders to measure and verify ESG outcomes. Contrariwise, it is also plausible that espousing more ESG pay serves to comply with social norms and improve the firm's reputation through a signaling mechanism, providing external audiences with substantive actions that can increase their legitimacy (Berrone et al., 2009; Truong Ceren et al., 2021). Future research should explore in greater depth the reasons for this finding.

We expect to contribute to the literate in several ways. First, our research enhances the ESG debate by building on previous work (e.g., Flammer et al., 2019) and showing that ownership structure significantly influences ESG pay, highlighting governance (ownership) as a critical factor in ESG studies.

Second, using a dataset covering worldwide family and non-family publicly traded firms, our research bridges and expands previous studies on executive compensation in family firms that use single-country data. We add to the ownership literature how family-owned companies, which are many firms worldwide, approach paying their leaders for ESG-responsible efforts, demonstrating that family firms may not prioritize compensation mechanisms for sustainable goals.

Third, theoretically, we address the call for papers that use family theories to understand executive compensation in family firms better (Michiels et al., 2022).

Finally, from a conceptual perspective, the study prompts reflection on the impact of ESG pay on optimal contracting or rent destruction and explores whether sustainability costs mean that ESG pay is a strategic business decision or a response to external pressure. In

practical terms, our findings hold implications for policymakers, practitioners, and family firms.

We acknowledge several limitations in this study. First, the governance characteristics of the firms are not randomly assigned; instead, they result from the endogenous decisions of firm owners and managers. Second, the study sample spans from 2011 to 2019, a period when ESG pay adoption was rapidly increasing as companies experimented with this novel and unconventional feature of executive compensation. Consequently, the associations established based on the 2011-2019 sample may change in later periods, when ESG pay has become a more standard component of executive compensation systems.

Our findings have significant managerial implications for family and non-family firms, as well as policymakers. For family firms, the results suggest that increasing board independence can mitigate the negative impacts of concentrated ownership on ESG pay, enhance governance practices, and build stakeholder trust. Additionally, maintaining or adopting CEO duality in family firms can balance familial control with professional management, reducing resistance to ESG pay and fostering long-term sustainability. Non-family firms, on the other hand, can benefit moderately from higher board independence, which improves governance and risk management, albeit with modest gains in ESG pay. The presence of CEO duality in non-family firms shows marginal benefits, suggesting that while it can streamline decision-making and improve operational efficiency, it should be considered contextually. For policymakers, these insights underline the importance of promoting regulations around independent boards, particularly in family firms, and providing flexible guidelines on CEO duality that ensure balanced governance.

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Table 1: Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) ESG pay	1.000												
(2) Fam firm	-0.073*	1.000											
(3) Board independence	0.029*	-0.294*	1.000										
(4) CEO duality	0.094*	-0.028*	-0.096*	1.000									
(5) CEO with family ties	-0.068*	0.624*	-0.191*	-0.300*	1.000								
(6) CEO tenure	-0.086*	0.180*	-0.070*	-0.346*	0.342*	1.000							
(7) Eponymous firm	-0.057*	0.038*	0.008	-0.066*	0.016	0.004	1.000						
(8) Nº family members	-0.056*	0.389*	-0.262*	-0.105*	0.421*	0.297*	0.082*	1.000					
(9) Female CEO	0.013	-0.004	0.002	0.029*	-0.020*	-0.051*	-0.021*	-0.019	1.000				
(10) Remuneration committee	0.026*	-0.113*	0.115*	0.007	-0.094*	-0.018	0.001	-0.058*	0.026*	1.000			
(11) CG committee	-0.046*	-0.211*	0.545*	-0.234*	-0.086*	0.010	0.000	-0.055*	0.030*	0.154*	1.000		
(12) CSR committee	0.237*	-0.090*	0.118*	-0.039*	-0.077*	-0.098*	-0.001	-0.082*	-0.002	0.034*	0.092*	1.000	
(13) Log (Total Assets)	0.167*	-0.146*	0.156*	-0.122*	-0.105*	-0.097*	0.121*	-0.055*	0.021*	0.079*	0.139*	0.292*	1.000
(14) Profitability	-0.053*	-0.022*	-0.009	-0.031*	-0.010	0.085*	0.086*	-0.007	0.009	-0.011	-0.037*	-0.007	0.192*
(15) Leverage	0.079*	-0.049*	0.060*	-0.019	-0.064*	-0.105*	0.024*	-0.060*	0.004	0.013	0.036*	0.102*	0.378*
(16) Tangibility	0.290*	-0.049*	0.056*	0.032*	-0.047*	-0.044*	-0.042*	-0.038*	0.033*	0.016	0.063*	0.263*	0.188*
(17) Log (Book-to-Market)	0.133*	0.018	-0.056*	0.043*	0.006	-0.012	-0.041*	-0.003	-0.001	-0.031*	-0.049*	0.105*	0.051*
(18) Dividends	0.044*	0.007	-0.068*	0.027*	-0.011	-0.013	0.027*	-0.026*	0.013	-0.044*	-0.124*	0.052*	0.106*
(19) Institutional ownership	-0.168*	-0.371*	0.506*	-0.172*	-0.201*	0.001	0.035*	-0.153*	0.016	0.179*	0.640*	-0.052*	0.135*

	(14)	(15)	(16)	(17)	(18)	(19)
(14) Profitability	1.000					
(15) Leverage	-0.062*	1.000				
(16) Tangibility	-0.029*	0.210*	1.000			
(17) Log (Book-to-Market)	-0.182*	-0.053*	0.253*	1.000		
(18) Dividends	0.131*	0.059*	0.029*	-0.060*	1.000	
(19) Institutional ownership	0.104*	0.020*	-0.108*	-0.171*	-0.127*	1.000

Notes. Pearson correlation coefficients. The sample includes all firm-year observations for worldwide companies from 2012 to 2020. *** *p<0.01,* ** *p<0.05,* * *p<0.1*

Table 2: Summary Statistics

					Panel A		Panel B
Variable	N	Mean	SD.	Min	Max	Non-FFs	FFs	p-value for diff
ESG pay	17652	.326	.469	0	1	0.346	0.266	***
Fam firm	17652	.244	.429	0	1			
Board independence (%)	17652	72.656	18.845	0	100	75.806	62.881	***
CEO duality	17652	.702	.457	0	1	0.710	0.680	***
CEO with family ties	17652	.111	.315	0	1	0	0.457	***
CEO tenure	17652	10.03	8.773	0	63	9.133	12.811	***
Eponymous firm	17652	.166	.372	0	1	0.158	0.191	***
Nº family members on the board	17652	.449	.876	0	7	0.256	1.049	***
Female CEO	17652	.044	.205	0	1	0.045	0.043	
Remuneration committee	17652	.972	.165	0	1	0.982	0.939	***
Corporate governance committee	17652	.669	.471	0	1	0.726	0.494	***
CSR committee	17652	.135	.342	0	1	0.152	0.081	***
Log (Total Assets)	17652	7.7	1.728	2.102	12.585	7.843	7.255	***
Profitability	17652	.032	.125	-.914	.305	0.033	0.027	**
Leverage	17652	.233	.175	0	.981	0.238	0.218	***
Tangibility	17652	.292	.256	0	.964	0.300	0.270	***
Log (Book-to-Market)	17652	-.913	.781	-3.191	1.063	-0.921	-0.888	**
Dividends	17652	.329	.722	-2.268	4.731	0.326	0.337	
Institutional Ownership	17652	.595	.316	.001	1	0.662	0.388	***

*** *p<0.01, ** p<0.05, * p<0.1*

Table 3: Sample distribution by country

Country	N	ESG pay==1	ESG pay==0	FF	Non- FF
Australia	1,271	860	411	329	942
Belgium	5	0	5	4	1
Bermuda	1	1	0	0	1
Canada	1,649	1,086	563	366	1,283
Switzerland	302	118	184	167	135
Denmark	1	1	0	1	0
Spain	230	103	127	113	117
Finland	139	54	85	56	83
France	819	240	579	436	383
United Kingdom	2,082	662	1,42	425	1,657
Greece	18	9	9	12	6
Isle of Man	3	0	3	3	0
Ireland	75	12	63	22	53
Israel	2	0	2	2	0
Italy	367	140	227	232	135
Luxembourg	28	14	14	16	12
Netherlands	63	24	39	35	28
Norway	155	42	113	79	76
New Zealand	83	47	36	4	79
Portugal	96	25	71	50	46
Sweden	573	78	495	236	337
United States	9,669	2,227	7,442	1,706	7,963
South Africa	21	18	3	8	13
Total	17,652	5,761	11,891	4,302	13,350

Table 4: OLS Regression Analysis

VARIABLES	(1) Controls	(2) Controls 1	(3) H1	(4) H2	(5) H3	(6) FF subsample H4
Fam firm (largest controlling shareholder >=10%) t-1			-0.060***	-0.003	-0.099***	
			(0.010)	(0.028)	(0.023)	
Fam firm x Board independence t-1				-0.001**		
				(0.000)		
Fam firm x CEO duality t-1					0.041*	
					(0.022)	
Board independence (%) t-1	0.002***	0.002***	0.002***	0.002***	0.002***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
CEO duality t-1	0.024***	0.020**	0.028***	0.029***	0.022**	0.071***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.009)	(0.021)
CEO with family ties t-1		-0.026**	0.019	0.020	0.043**	0.039*
		(0.012)	(0.014)	(0.014)	(0.020)	(0.021)
CEO tenure t-1	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)
Eponymous firm t-1	-0.050***	-0.049***	-0.047***	-0.047***	-0.048***	-0.036**
	(0.008)	(0.009)	(0.009)	(0.009)	(0.009)	(0.016)
Nº family members on the board t-1		-0.003	0.001	-0.000	-0.000	0.003
		(0.004)	(0.004)	(0.004)	(0.004)	(0.006)
Female CEO t-1	0.013	0.013	0.014	0.013	0.013	0.005
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.027)
Remuneration committee t-1	0.047**	0.045**	0.045**	0.048**	0.046**	0.039
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.025)
Corporate governance committee t-1	0.034***	0.036***	0.037***	0.037***	0.037***	0.016
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.016)
CSR committee t-1	0.123***	0.121***	0.121***	0.120***	0.121***	0.118***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.028)
Log (Total Assets) t-1	0.041***	0.041***	0.040***	0.040***	0.040***	0.036***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.005)
Profitability t-1	-0.163***	-0.163***	-0.156***	-0.159***	-0.157***	-0.148***
	(0.028)	(0.028)	(0.028)	(0.028)	(0.028)	(0.050)
Leverage t-1	-0.097***	-0.098***	-0.095***	-0.097***	-0.095***	-0.082**
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.038)
Tangibility t-1	0.325***	0.324***	0.322***	0.323***	0.321***	0.236***
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.029)
Log (Book-to-Market) t-1	0.015***	0.015***	0.015***	0.015***	0.015***	0.004
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.008)
Dividends t-1	0.007	0.007	0.006	0.006	0.006	-0.015*
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.009)
Institutional Ownership t-1	0.034**	0.024	-0.006	-0.007	-0.005	0.130***
	(0.016)	(0.017)	(0.018)	(0.018)	(0.018)	(0.034)
Observations	17,652	17,652	17,652	17,652	17,652	4,302
R-squared	0.214	0.215	0.216	0.216	0.216	0.181
Country FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES

DV: ESG Pay. Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5: OLS Regression Analysis of PSM

VARIABLES	(1) H1	(2) H2	(3) H3	(4) FF subsample (H4)
Fam firm (largest controlling shareholder at least 10%) t-1	-0.068***	-0.128***	-0.116***	
	(0.012)	(0.029)	(0.025)	
Family firm x board independence t-1		0.001**		
		(0.000)		
Family firms x CEO duality t-1			0.055**	
			(0.025)	
Board independence (%) t-1	0.001**	0.000	0.001**	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
CEO duality t-1	0.025**	0.025**	0.006	0.072***
	(0.013)	(0.013)	(0.015)	(0.021)
CEO with family ties t-1	0.017	0.016	0.042**	0.039*
	(0.016)	(0.016)	(0.020)	(0.021)
CEO tenure t-1	-0.002***	-0.002***	-0.002***	-0.001
	(0.000)	(0.000)	(0.000)	(0.001)
Eponymous firm t-1	-0.043***	-0.043***	-0.044***	-0.035**
	(0.012)	(0.012)	(0.012)	(0.016)
Nº family members on the board t-1	0.005	0.006	0.003	0.003
	(0.005)	(0.005)	(0.005)	(0.006)
Female CEO t-1	0.024	0.025	0.022	0.005
	(0.021)	(0.021)	(0.021)	(0.027)
Remuneration committee t-1	-0.011	-0.009	-0.009	0.038
	(0.020)	(0.020)	(0.020)	(0.025)
Corporate governance committee t-1	0.031**	0.031**	0.030**	0.015
	(0.012)	(0.012)	(0.012)	(0.016)
CSR committee t-1	0.130***	0.130***	0.131***	0.119***
	(0.019)	(0.019)	(0.019)	(0.028)
Log (Total Assets) t-1	0.040***	0.041***	0.040***	0.037***
	(0.003)	(0.003)	(0.003)	(0.005)
Profitability t-1	0.005	0.008	0.007	-0.138***
	(0.033)	(0.033)	(0.033)	(0.050)
Leverage t-1	-0.124***	-0.122***	-0.123***	-0.082**
	(0.028)	(0.028)	(0.028)	(0.038)
Tangibility t-1	0.298***	0.296***	0.296***	0.237***
	(0.021)	(0.021)	(0.021)	(0.030)
Log (Book-to-Market) t-1	-0.008	-0.007	-0.007	0.003
	(0.006)	(0.006)	(0.006)	(0.008)
Dividends t-1	0.003	0.003	0.003	-0.015*
	(0.007)	(0.007)	(0.007)	(0.009)
Institutional Ownership t-1	0.043*	0.041*	0.046*	0.124***
	(0.024)	(0.024)	(0.024)	(0.034)
Observations	8,604	8,604	8,604	4,302
R-squared	0.193	0.193	0.193	0.182
Country FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES

DV: ESG Pay. Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 1: ESG Pay contracting over time

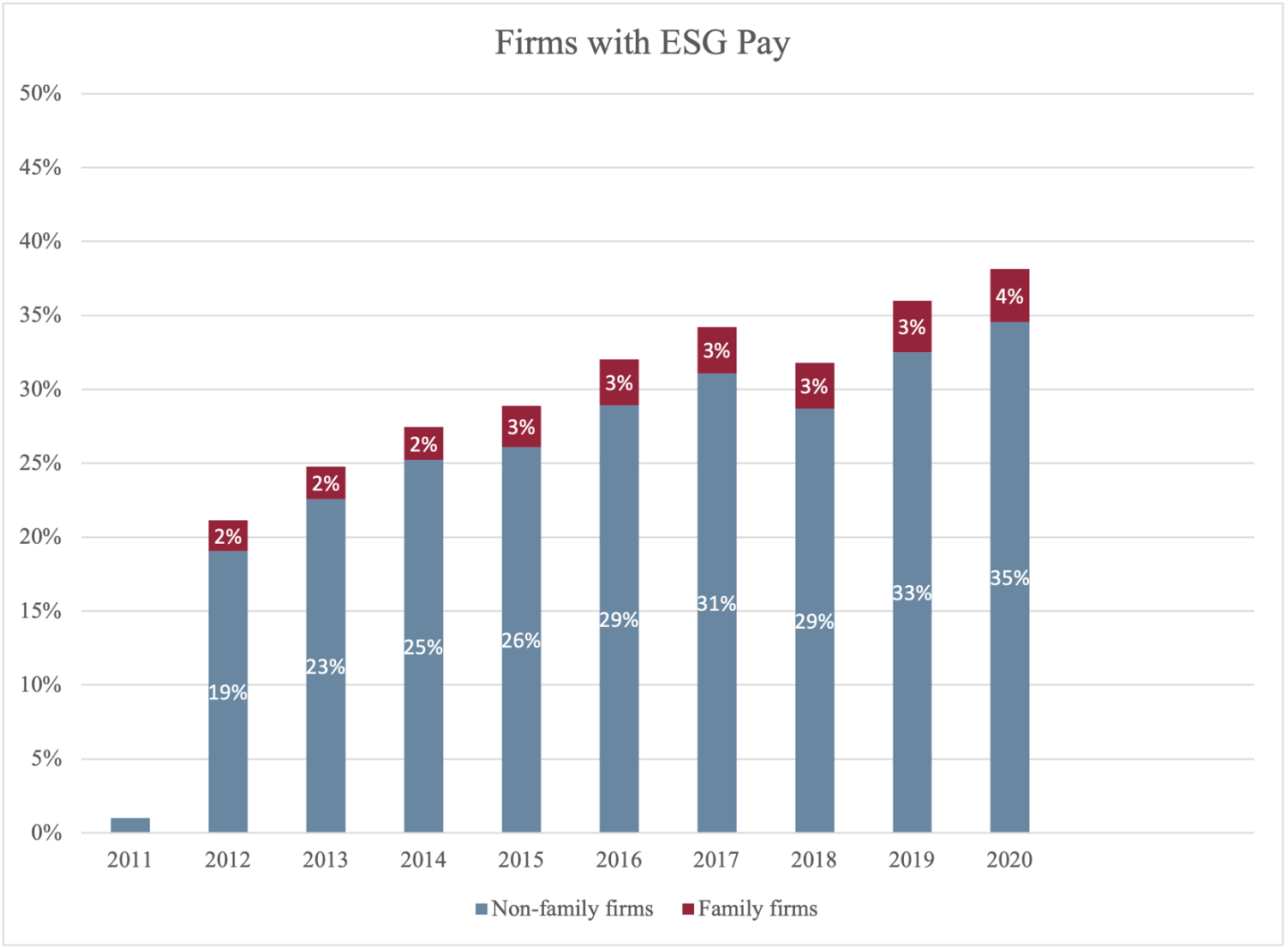


Figure 2: Predictive margins of ESG pay for board independence in family and non-family firms

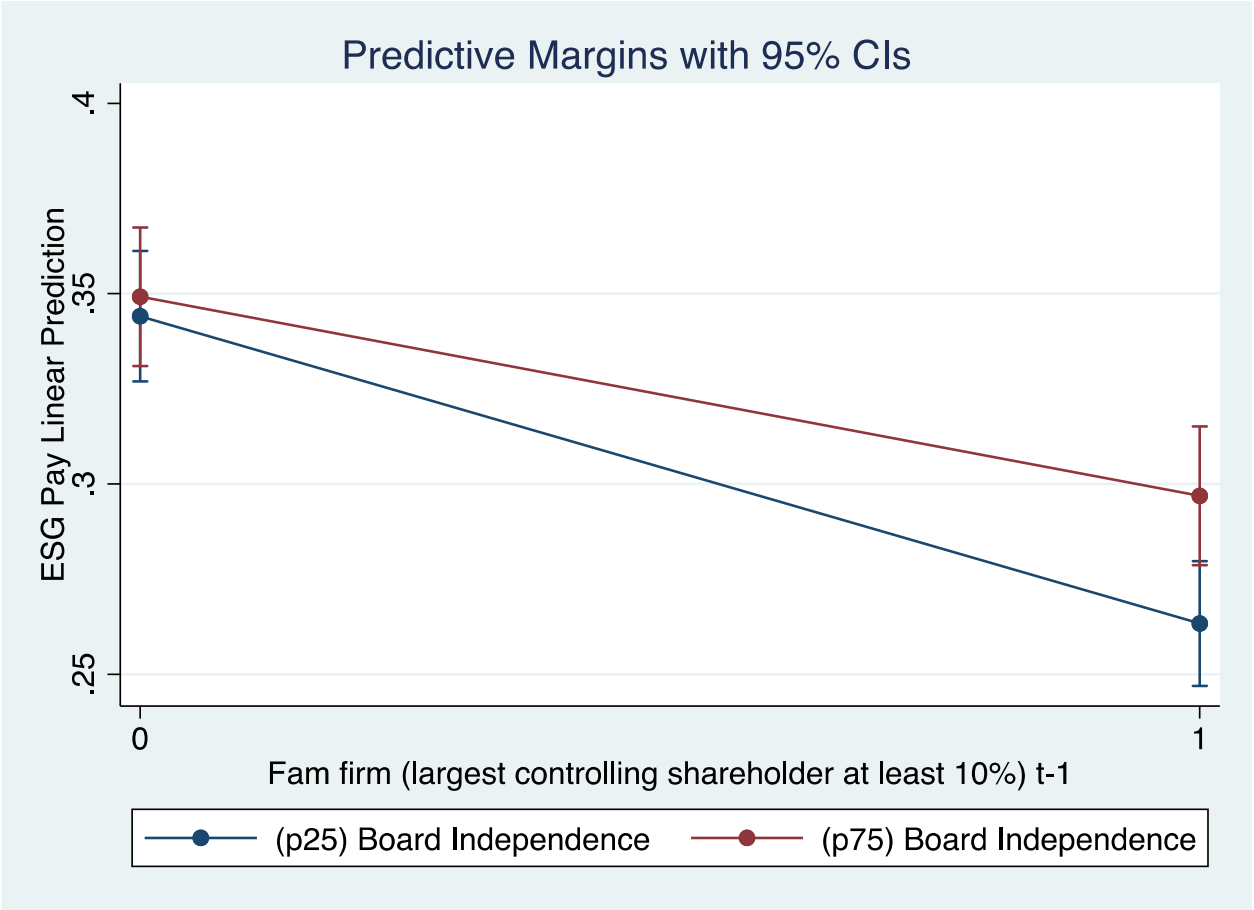
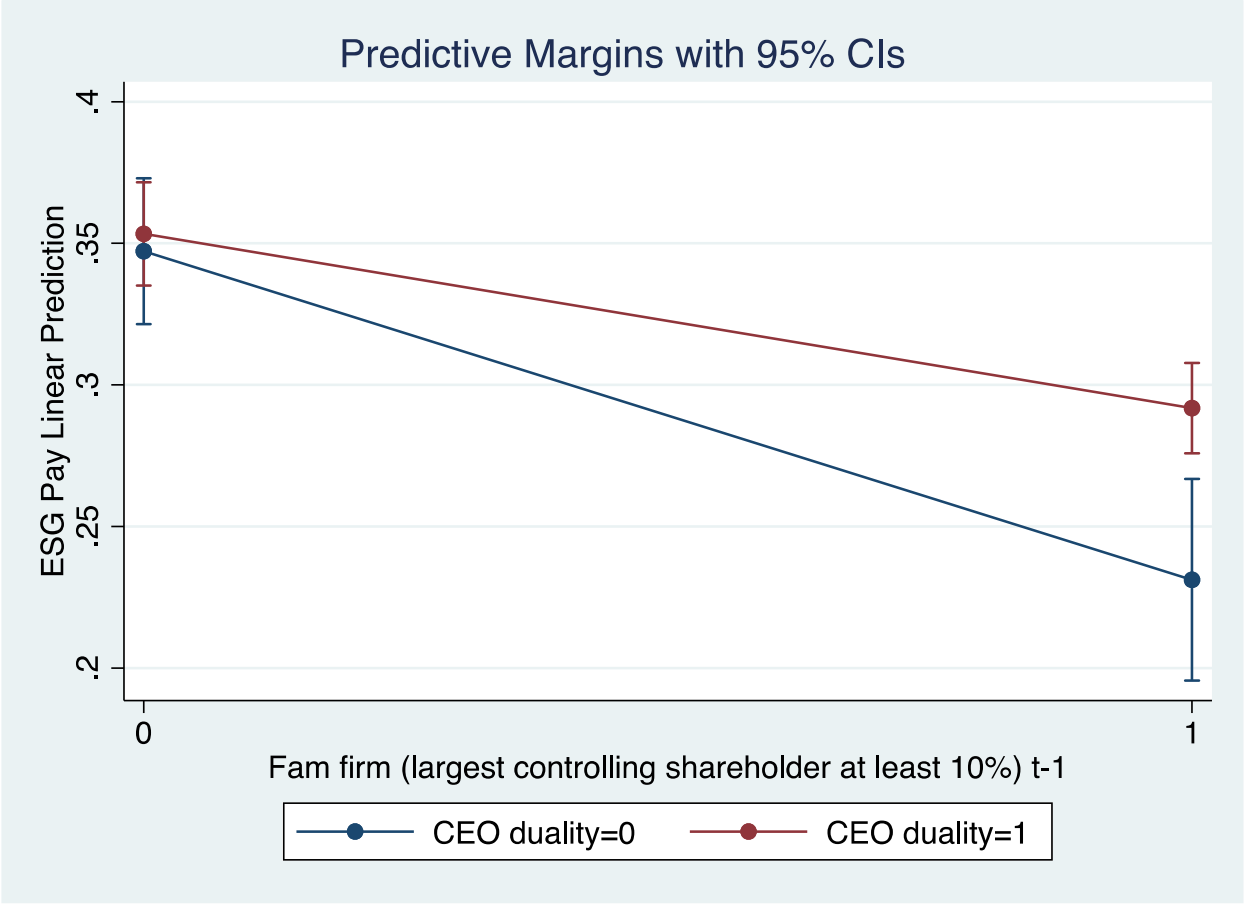


Figure 3: Predictive margins of ESG pay for CEO duality in family and non-family firms



Appendix A. Sample Construction

Sample Observations	# Firm-Years	# Distinct Firms	# Distinct Family Firms
Obs. in NRG database from 2011 to 2019	29,141	5,586	2,344
Obs. overlap with no-missing data from ISS ECA	18,654	3,752	1,300
Obs. overlap with no missing data from DataStream	18,085	3,546	1,217
Obs. overlap with no missing data from FactSet	17,652	3,587	1,084

Appendix B. Balance Tests from PSM

Variable	Mean control (Unmatched)	Mean treated (Unmatched)	Mean control (Matched)	Mean treated (Matched)	p-value for diff (Unmatched)	p-value for diff (Matched)
Board independence (%)	75.806	62.881	66.000	62.000	***	***
CEO duality	0.710	0.680	0.719	0.680	***	***
CEO tenure	9.133	12.811	11.502	12.811	***	***
Eponymous firm	0.158	0.191	0.176	0.191	***	*
Nº family members on the board	0.256	1.049	0.334	1.049	***	***
Female CEO	0.045	0.043	0.032	0.043		**
Remuneration committee	0.982	0.939	0.962	0.939	***	***
Corporate governance committee	0.726	0.494	0.542	0.494	***	***
CSR committee	0.152	0.081	0.100	0.081	***	**
Log (Total Assets)	7.843	7.255	7.341	7.255	***	**
Profitability	0.033	0.027	0.026	0.027	**	
Leverage	0.238	0.218	0.221	0.218	***	
Tangibility	0.300	0.270	0.283	0.270	***	**
Log (Book-to-Market)	-0.921	-0.888	-0.872	-0.888	**	
Dividends	0.326	0.337	0.322	0.337		
Institutional Ownership	0.662	0.388	0.446	0.388	***	***

*** p<0.01, ** p<0.05, * p<0.1