The Daughter Effect in CEO Appointments: Evidence from Swedish SMEs

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Abstract

Appointing a female CEO is an endogenous decision shaped by firm-specific preferences and organizational characteristics, which makes it challenging to identify the causal drivers of gender diversity in executive leadership. This paper examines whether male board directors with daughters are more likely to support the appointment of female CEOs. Drawing on matched employer-employee data from approximately 7,000 Swedish SMEs, I find that firms with a higher share of daughter-having male directors are significantly more likely to appoint a female CEO. To mitigate concerns about reverse causality, the analysis includes robustness checks focusing on directors whose daughters were born after their board appointment. These findings suggest that the gender composition of directors' children may serve as a quasi-exogenous predictor of CEO gender and could be leveraged in future research. However, limitations remain, particularly concerning residual endogeneity and the specificity of the Swedish context.

Keywords: Corporate Governance, Gender Diversity, CEO Appointments, Board Composition, Social Preferences, Behavioral Biases

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1 Introduction

Over the past century, female labor force participation has steadily increased and is often regarded as one of the most remarkable economic developments of the modern era (Esteban Ortiz-Ospina & Roser 2020). Yet, despite decades of progress in education and labor market engagement, women remain underrepresented in corporate leadership positions (Catalyst 2024, Bertrand 2019). This persistent gap raises important questions about the structural and cultural barriers that impede women's advancement to top executive roles.

In Sweden, only 6% of CEOs in publicly listed firms were women in 2017, and international figures remain similarly low. More recent figures suggest that this underrepresentation is not only persistent but may be worsening. The overall share of female CEOs has declined from 12% to 11%, and among the largest firms, the drop is particularly stark. For the first time since the pandemic year of 2020, the proportion of women CEOs in major companies has fallen below 10%, reaching just 9%. International data reveal similar patterns of stagnation or decline. In the United States, only 10.4% of Fortune 500 companies (Catalyst 2024). In Europe, the trend is even more pronounced: the share of female CEOs in Fortune 500 Europe companies declined from 7% to just 6.2% in the same year (Fortune 2024).

Men continue to hold a majority of board seats. In 2018, female board representation in Fortune 500 companies stood at 22.5% (Alliance for Board Diversity and Catalyst 2018). In 2024, female board representation in countries like Australia, China, Canada, Japan, the U.S., and India ranged from 3.9% to 21.8% (Suisse 2024). Sweden stands out with women holding 40% of board seats in 2024, surpassing the EU average of 33.8% (Allbright 2024).

Although many policymakers advocate for increased female participation in leadership, the question of whether and how greater gender diversity improves corporate decision-making remains unsettled. Empirical findings vary considerably in sign and magnitude (Watson 2002, Davis et al. 2010, Krishnan & Parsons 2008, Khan & Vieito 2013, Smith et al. 2006, Peni 2014).

From a theoretical perspective, the persistent gender gap in executive leadership may reflect labor market inefficiencies stemming from discriminatory practices (Becker 1957). However, demand-side discrimination alone is unlikely to explain the entire gap. Supply-side factors – such as career interruptions due to family formation (Goldin 2014, Kleven et al. 2019) and gender differences in occupational preferences and risk tolerance (Blau & Kahn 2017) – can reduce the pool of eligible women for top roles.

Nonetheless, demand-side barriers such as the 'glass ceiling' continue to be identified as key drivers of inequality (Bertrand 2019, Azmat & Petrongolo 2014). Recent studies highlight how both supply- and demand-side factors interact to shape the gender distri-

bution in executive leadership (Card et al. 2022, Cortés & Pan 2023).

In this paper, I investigate a specific demand-side mechanism: whether male board directors who have daughters are more likely to appoint female CEOs. Prior research suggests that fathering daughters may shift men's social preferences and attitudes toward gender equity. For instance, fathers of daughters have been shown to vote more liberally on gender-related issues (Washington 2008), offer higher pay to female employees (Dahl et al. 2012), and lead firms with more inclusive practices (Cronqvist et al. 2017).

To provide a conceptual foundation for the empirical analysis, I develop a utility-based framework in which corporate directors weigh firm performance against socially motivated preferences when evaluating CEO candidates. In this framework, the weight assigned to social utility – such as the promotion of gender equity – is heterogeneous and shaped by the director's personal experiences. Specifically, directors with daughters are assumed to place greater emphasis on social outcomes. This prediction is examined empirically using detailed matched employer-employee data from Sweden, enriched with family structure information that allows identification of directors with daughters at the individual level.

Using matched employer-employee register data on approximately 7,000 Swedish small and medium-sized enterprises (SMEs), I examine the relationship between board members' family composition and CEO appointment decisions. The approach exploits the exogenous nature of child gender and distinguishes between having daughters, the timing of childbirth, and the gender of the firstborn child. The regression models include controls for firm size, board composition, industry, and year fixed effects. The results reveal a robust and economically meaningful daughter effect: an increase in the share of male directors with daughters is associated with a 3.5 to 3.7 percentage point increase in the probability of appointing a female CEO. This effect is comparable in magnitude to that of adding one additional female director to the board.

In line with these findings, Wu et al. (2023) show that male founders with daughters tend to promote greater gender diversity in their ventures, likely due to vicarious learning from their daughters' experiences. Additional studies reveal that gender disparities in parental financial investment begin early: parents often invest more in stock-based savings for sons than daughters (Oskarsson 2023), laying a foundation for long-term economic inequality.

This paper contributes to the literature in several ways. First, I show that personal life experiences – specifically, fatherhood of daughters – can shape corporate decision-making. Unlike most previous studies, which focus on listed firms and rely on manually collected data, I use comprehensive register data for all Swedish firms over a 15-year period, including SMEs. Second, I shift the analytical focus from CEOs to board composition, testing whether male board members with daughters are more likely to support

the appointment of female CEOs. Third, I expand theoretical work by relaxing the assumption that daughter effects arise solely from ideological shifts. Drawing on Becker (1964, 1981), I propose that fatherhood alters utility functions to incorporate intergenerational welfare. When board members have daughters, they may perceive gender-equal policies as a means of improving their daughters' long-term economic prospects - and thus their own family's welfare.

While I do not evaluate gender quotas directly, my findings are relevant to ongoing policy debates. Several countries – including Norway, France, and Spain – have adopted gender quota regulations. In 2022, the EU introduced a directive requiring publicly listed companies with over 250 employees to have at least 40% of non-executive directors from the underrepresented gender by 2026 (European Commission 2022). My results suggest that increasing the share of female directors has a larger effect on female CEO appointments than the daughter variable, highlighting the role of professional networks and peer dynamics.

The remainder of the paper is organized as follows. Section 2 reviews the related literature. Section 3 outlines the theoretical model. Section 4 describes the data and variable construction. Section 5 presents the empirical strategy. Section 6 reports the results. Section 7 concludes.

2 Literature Review and Previous Findings

A. Female Leadership and Corporate Performance: Mixed Evidence
The question of whether and how a more equitable distribution of female and male CEOs, as well as a more diversified boardroom, improves corporate decision-making and performance remains a significant point of inquiry. Empirical findings on the impact of female leadership have been mixed. Some studies suggest that firms led by female CEOs tend to outperform those led by male counterparts (Watson 2002, Davis et al. 2010, Krishnan & Parsons 2008, Khan & Vieito 2013, Smith et al. 2005, Peni 2014).

While some scholars argue that gender-diverse boards enhance various aspects of governance and performance, the empirical evidence is inconclusive. Positive (Carter et al. 2003, Erhardt et al. 2003), negative (Ahern & Dittmar 2012, Adams & Ferreira 2009), and null (Rose 2007, Smith et al. 2006) effects have all been reported. This heterogeneity likely stems from endogeneity concerns, as unobserved firm characteristics may influence both board composition and performance.

For example, Adams & Ferreira (2009) find that gender-diverse boards correlate with lower firm valuation but better monitoring, including improved attendance and performance-sensitive CEO turnover. Ahern & Dittmar (2012) use Norway's gender quota as an instrument and find a negative effect on firm value, attributing it to newly appointed female directors having less CEO experience. Similarly, Parrotta & Smith (2013) report

a negative correlation between female leadership and firm performance in Denmark. In contrast, Faccio et al. (2016) find that female-led firms in Europe exhibit lower leverage, more stable earnings, and greater survival rates, using interlocking director ties to female CEOs as an instrument.

B. Attitudes, Socialization, and Support for Feminism

Scholars have explored how parenting daughters influences men's support for feminism. Warner (1991) finds that parents – particularly women – who have daughters are more likely to support feminist views. Men, on the other hand, tend to adopt such beliefs when aligned with their broader ideology. Support for feminism among Canadian men increases when they have daughters, but this pattern does not hold for American men.

C. Political and Behavioral Effects of Having Daughters

Subsequent research has expanded this literature, uncovering a 'daughter effect' in political attitudes. Washington (2008) shows that U.S. congresspersons with more daughters vote more liberally, particularly on reproductive issues. Glynn & Sen (2015) finds that judges with daughters are more likely to support feminist rulings, especially Republican judges. Owsald & Powdthavee (2010) and Conley & Rauscher (2013) present contrasting findings on political leanings among parents of daughters, suggesting the effect varies with context. Pogrebna et al. (2018) add a behavioral dimension, finding that expecting a daughter increases parental risk aversion.

Recent studies refine this effect by focusing on the sex of the firstborn. Sharrow et al. (2018) and Greenlee et al. (2018) report stronger support for gender-equality policies among fathers of firstborn daughters. However, Lee et al. (2015), using cross-national data, finds no causal effect, highlighting contextual moderation.

D. Corporate Implications and Policy Contexts

Several studies examine daughter effects within firms. Cronqvist & Yu (2017) find that CEOs with daughters lead firms with 9% higher CSR scores. Dahl et al. (2012) show that male CEOs reduce wages after fatherhood, but less so when the child is a daughter. Female employees are also less negatively affected. Wu et al. (2023) find that male founders with daughters employ more women in senior roles. Wang & Huang (2019) and Bennedsen et al. (2019) show similar effects in China and male-dominated industries, respectively. Dasgupta & Hauser (2018) and Green & Homroy (2018) link daughter effects to female board appointments and improved firm performance.

E. Early Origins of Gender Disparities: Intra-Household Dynamics

Experimental studies suggest that father-daughter interactions influence cognitive and behavioral responses. Mascaro & Rilling (2017) finds that fathers of daughters show stronger neural responses to emotional cues and engage in more verbal, nurturing play than fathers of sons. These early behaviors may shape broader social preferences, including workplace decisions.

Additionally, disparities in parental investment appear early. Oskarsson (2023) document that parents invest more in stock-based savings for sons than daughters, creating long-term economic inequality. Data from Sweden's Financial Supervisory Authority show that boys as young as three are more likely to have stock-based accounts. Trinh & et al. (2024) further highlight that intergenerational wealth transfers disproportionately favor sons, contributing to persistent wealth gaps.

In this paper, I build on this literature by testing whether male board directors with daughters are more likely to appoint female CEOs. I draw on findings from economics, sociology, and political science to hypothesize that personal life experiences – specifically fatherhood – shape corporate leadership decisions. In the next section, I outline a utility-based model that formalizes this mechanism.

3 Theoretical Framework: A Utility-Based Model of the Daughter Effect

This section presents a conceptual framework intended to illustrate the potential mechanism linking fatherhood of daughters to the appointment of female CEOs. The model is not directly estimated or tested in the empirical analysis, nor are its parameters (e.g., θ_i, δ) identified. Rather, it serves as a theoretical lens to motivate the core hypothesis and clarify how personal life experiences might influence corporate decision-making.

Given data limitations – particularly the inability to observe real-time preference shifts or attitudinal change – the framework should be interpreted as an organizing device for expectations, not as a formally testable model. Its main value lies in structuring the proposed behavioral channel from private experiences to board-level outcomes.

In the model, corporate board directors are conceptualized as utility-maximizing agents. The framework builds on foundational insights from Becker (1964, 1981), incorporating theories of social preferences and identity-based utility. In particular, it draws on Akerlof & Kranton (2000), Bénabou & Tirole (2006), and Fehr & Schmidt (1999), who model utility not only as a function of material payoffs, but also as shaped by social norms, fairness concerns, and prosocial motivations.

Directors' utility is assumed to derive from both the expected performance of the firm and socially motivated preferences, which may be influenced by personal experiences – most notably, fatherhood of daughters.

3.1 Environment

Consider a firm governed by a board consisting of N directors. In each hiring period, the board selects a CEO from a candidate pool containing both male and female applicants, denoted $c \in \{M, F\}$.

Each director $i \in \{1, \ldots, N\}$ evaluates candidates based on a utility function comprising two components:

$$U^i(c) = (1 - \theta_i)U_e^i(c) + \theta_i U_s^i(c), \tag{1}$$

where $U_e^i(c)$ captures the expected performance of the firm under candidate c, $U_s^i(c)$ reflects the social utility gained from non-performance-related candidate attributes (such as the promotion of gender equity), and $\theta_i \in [0, 1]$ denotes the director-specific weight placed on social considerations.

3.2 The Daughter Effect on Preferences

The parameter θ_i is modeled as a function of the director's family composition. Specifically, directors with daughters place greater weight on social utility:

$$\theta_i = \theta_0 + \delta D_i, \tag{2}$$

where D_i is an indicator variable equal to 1 if director i has at least one daughter, and $\delta > 0$ measures the magnitude of the daughter-induced preference shift.

3.3 Candidate Evaluation and Voting Behavior

Board decisions are made by majority vote, with each director selecting the CEO candidate who maximizes their individual utility.

Define the difference in utility between appointing a female versus a male CEO:

$$\Delta U^i = U^i(F) - U^i(M) = (1 - \theta_i)[U_e^i(F) - U_e^i(M)] + \theta_i[U_s^i(F) - U_s^i(M)]. \tag{3}$$

Let $\Delta_e^i = U_e^i(F) - U_e^i(M)$ and $\Delta_s^i = U_s^i(F) - U_s^i(M)$. Then:

$$\Delta U^i = (1 - \theta_i)\Delta_e^i + \theta_i \Delta_s^i. \tag{4}$$

A director supports the appointment of a female CEO if $\Delta U^i > 0$. Solving for θ_i yields a threshold condition:

$$\theta_i > \frac{-\Delta_e^i}{\Delta_s^i - \Delta_e^i} = \theta_i^*. \tag{5}$$

Only directors whose preference weight θ_i exceeds this threshold will vote in favor of a female candidate.

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3.4 Comparative Statics

Since θ_i increases with D_i, the likelihood that $\theta_i > \theta_i^*$ is higher among directors with daughters. It follows that the overall probability of appointing a female CEO rises with the proportion of daughter-having directors:

$$P(\text{Female CEO}) = F\left(\sum_{i=1}^{N} I\{\theta_i > \theta_i^*\}\right), \tag{6}$$

where $F(\cdot)$ denotes the board's decision rule under majority voting.

3.5 Hypothesis and Empirical Implication

This leads to the illustrative hypothesis:

> **Hypothesis:** Firms are more likely to appoint a female CEO when a greater proportion of board directors have daughters.

The model yields a clear comparative static: firms are more likely to appoint a female CEO when a greater proportion of board directors have daughters. This hypothesis is illustrated in Equation (7), where I test whether the share of male directors with daughters predicts the likelihood of appointing a female CEO, conditional on firm and board characteristics.

The conceptual framework thus serves as a guide for the empirical analysis, providing theoretical structure to the central hypothesis. In the next section, I examine this empirical prediction using matched employer-employee data from Sweden, estimating a probit model in which the key explanatory variable is the proportion of male board members with daughters.

4 Data and Empirical Strategy

4.1 Data Sources and Construction

I use detailed administrative microdata from Statistics Sweden, combining the Longitudinal Integrated Database for Health Insurance and Labour Market Studies (LISA) with firm-level register data from the Swedish Companies Registration Office (SCRO). The LISA database includes annual, individual-level information on demographics, education, earnings, employment, and family links for the full Swedish population from age 16 (15 since 2010), covering the period 1990-2017. The SCRO register provides audited annual reports for all limited liability firms in Sweden, including information on board composition and firm-level characteristics.

By merging these datasets, I construct a panel of directors and firms spanning the years 2000-2017. Using family identifiers, I identify the children of board members, including their gender and birth year. This enables me to create a categorical variable

indicating whether each male director has (i) no children, (ii) only sons, or (iii) at least one daughter. I then construct a firm-year level variable, *Director Dads with Daughters* (*DDD*), defined as the share of male directors in firm i at time t who have at least one daughter.

4.2 Sample Selection and Key Variables

The sample consists of all Swedish limited liability companies (both listed and unlisted) with at least 10 employees in the first year of observation. To focus on top management hiring, I identify externally recruited CEOs by selecting the two highest-paid employees in each firm-year and checking whether any of them was hired from a different firm. I construct binary outcome variables indicating whether the newly appointed external CEO is female or male.

Board characteristics include size, gender composition, and the share of outside directors. I also measure board-level human capital as the share of directors with at least three years of university education. Firm-level controls include log total assets as a proxy for firm size.

Table 1: Variables

Variable	Description
New E Fem CEO$_t$	Indicator (0/1): Externally recruited CEO is a woman t.
New E Male CEO$_t$	Indicator (0/1): Externally recruited CEO is a man t.
DDD$_{t-1}$	Director dads with daughters: Share of male directors in year (t-1) who have at least one daughter
DDS$_{t-1}$	Director dads with only sons: Share of male directors in year (t-1) who have only sons
DDNC$_{t-1}$	Director dads with no children: Share of male directors in year (t-1) who have no children
Out directors$_{t-1}$	Share of outside directors in year (t-1).
Female directors$_{t-1}$	Number of female directors in year (t-1).
Male directors$_{t-1}$	Number of male directors in year (t-1).
Board size$_{t-1}$	Number of directors on the focal firm's board in year (t-1)
Board HC$_{t-1}$	Share of directors with university education $\geq$ 3 years in year (t-1)
Log(Total assets)$_{t-1}$	Log of total assets in year (t-1)

4.3 Empirical Strategy

To test the prediction derived from the theoretical model, I estimate a probit model where the dependent variable is an indicator for whether a firm appoints a female CEO in year t. The main explanatory variable is DDD_{it-1}, the lagged share of male directors with daughters. The empirical model is specified as follows:

Table 2: Summary statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
New external female CEO$_{t-1}$	0.361	0.48	0	1	7913
DDD$_{t-1}$	0.262	0.357	0	1	7913
DDS$_{t-1}$	0.317	0.376	0	1	7913
Board size$_{t-1}$	2.567	1.929	1	39	7913
Female directors$_{t-1}$	0.277	0.673	0	17	7913
Male directors $_{t-1}$	2.29	1.683	1	22	7913
Out directors$_{t-1}$	0.38	0.409	0	1	7913
Board HC$_{t-1}$	0.147	0.206	0	1	7913
Log(total assets)$_{t-1}$	15.906	1.256	11.513	24.983	7913

$$\Pr(\text{Female CEO}_{it}) = \alpha_1 DDD_{it-1} + B'_{it-1}\beta + X'_{it-1}\gamma + \mu_j + \lambda_t + \varepsilon_{it} \tag{7}$$

where B_{it-1} is a vector of board-level covariates, X_{it-1} is a vector of firm-level controls, μ_j are industry fixed effects, and λ_t are year fixed effects. The coefficient α_1 captures the effect of the daughter-related preference shift on CEO gender selection.

The identifying assumption is that, conditional on observed firm and board characteristics, as well as industry and time effects, the gender composition of directors' children is exogenous to the firm's CEO appointment decision. This assumption is supported by prior literature using child gender as a plausibly exogenous instrument for social preference shifts.

Robustness checks include controlling for the gender of the firstborn child, total number of children, and placebo tests using directors with only sons. I also compare the magnitude of the DDD effect to the effect of increasing the number of female directors on the board.

5 Results

This section presents the main empirical findings. I estimate Equation 7 using a pooled probit model. Table 3 reports coefficient estimates for the likelihood of appointing a new external female CEO. All specifications include two-digit industry and year fixed effects to account for systematic variation across sectors and over time.

The primary explanatory variable is DDD_{t-1}, the lagged share of male board directors with at least one daughter. Consistent with the theoretical prediction, the estimated coefficients on DDD_{t-1} are positive and statistically significant across all specifications, ranging from 0.106 to 0.115. These findings provide robust evidence in support of the hypothesis that fathering daughters increases male directors' propensity to support female CEO appointments.

Columns (2) to (6) include an additional control for the share of male directors with only sons (DDS_{t-1}), using those with no children as the reference category. The estimated coefficients for DDS_{t-1} are small, ranging from -0.004 to 0.006, and not statistically significant, suggesting that having only sons does not significantly influence the likelihood of appointing a female CEO.

Column (3) introduces board size as a control, which yields no significant effect. However, when disaggregating the board composition by gender in columns (4) to (6), the results reveal a positive and statistically significant association between the number of female directors and the likelihood of female CEO appointment. The coefficients for female directors range from 0.118 to 0.137, while those for male directors are negative and significant (-0.019 to -0.035). These findings suggest that greater female presence on the board increases gender-diverse executive appointments, while male-dominated boards may inhibit them.

Columns (5) and (6) examine the influence of board characteristics such as the share of outside directors and board human capital (measured as the proportion of directors with at least three years of university education). Both variables are positively associated with the probability of appointing a female CEO. The coefficients for outside directors range from 0.104 to 0.115 and are significant, while board human capital has a large and highly significant effect (coefficient = 0.437, $p < 0.01$). These results suggest that independent and highly educated boards are more supportive of gender-equitable executive hiring.

Firm size, proxied by the log of total assets, is negatively and significantly associated with female CEO appointments across all specifications. The coefficients range from -0.044 to -0.050, indicating that larger firms are less likely to appoint female CEOs, potentially reflecting more entrenched organizational structures or conservative hiring norms.

To aid interpretation, Table 4 reports average marginal effects (AMEs). A one-unit increase in the share of male directors with daughters increases the probability of appointing a female CEO by approximately 4 percentage points.

Table 3: Probit - New external Female CEO

	New external female CEO$_{t-1}$					
	(1)	(2)	(3)	(4)	(5)	(6)
DDD$_{t-1}$	0.108**	0.106**	0.109**	0.111**	0.110**	0.115**
	(0.042)	(0.046)	(0.046)	(0.046)	(0.046)	(0.046)
DDS$_{t-1}$		-0.004	-0.001	0.002	0.002	0.006
		(0.044)	(0.044)	(0.044)	(0.044)	(0.044)
Board size$_{t-1}$			0.011			
			(0.009)			
Female directors$_{t-1}$				0.137***	0.133***	0.118***
				(0.025)	(0.024)	(0.024)
Male directors$_{t-1}$				-0.019*	-0.028**	-0.035***
				(0.011)	(0.011)	(0.011)
Out director$_{t-1}$					0.104**	0.115***
					(0.042)	(0.042)
Board HC$_{t-1}$						0.437***
						(0.086)
Log(total assets)$_{t-1}$	-0.045***	-0.045***	-0.050***	-0.044***	-0.045***	-0.050***
	(0.013)	(0.013)	(0.014)	(0.014)	(0.014)	(0.014)
Constant	1.134***	1.136***	1.194***	1.116***	1.126***	1.189***
	(0.264)	(0.264)	(0.269)	(0.270)	(0.270)	(0.269)
Observations	7913	7913	7913	7913	7913	7913

Clustered standard errors in parentheses. Industry and year fixed effects included in all specifications
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4: Probit - New external Female CEO - The average marginal effects (AME)

| | New external female CEO$_{t-1}$ | | | | | |
	(1)	(2)	(3)	(4)	(5)	(6)
DDD$_{t-1}$	0.035**	0.035**	0.036**	0.036**	0.036**	0.037**
	(0.014)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
DDS$_{t-1}$		-0.001	-0.000	0.001	0.001	0.002
		(0.014)	(0.015)	(0.014)	(0.014)	(0.014)
Board size$_{t-1}$			0.003			
			(0.003)			
Female directors$_{t-1}$				0.045***	0.043***	0.038***
				(0.008)	(0.008)	(0.008)
Male directors$_{t-1}$				-0.006*	-0.009**	-0.011***
				(0.003)	(0.004)	(0.004)
Out directors$_{t-1}$					0.034**	0.037***
					(0.014)	(0.014)
Board HC$_{t-1}$						0.142***
						(0.028)
Log(total assets)$_{t-1}$	-0.015***	-0.015***	-0.017***	-0.014***	-0.015***	-0.016***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
Observations	7913	7913	7913	7913	7913	7913

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

5.1 Robustness and Alternative Specifications

This section evaluates the robustness of the main findings and explores alternative model specifications. First, I re-estimate the model using a binary indicator for whether any male director had his first daughter *after* joining the board. This approach rules out the possibility that firms select directors based on pre-existing family structures, as board members and firm owners cannot predict a child's gender ex ante.

Table 5 presents results from probit models where the key explanatory variable is DDD ND_{t-1}, a dummy equal to one if any director had a first-born daughter in the previous year. Due to data limitations, the sample is restricted to the years 2002 and 2003, reducing the number of observations from 7,913 to 1,524. Despite this, the estimated coefficients are large, positive, and statistically significant, indicating that firms with a newly daughtered director have a 24 percentage point higher likelihood of appointing a female CEO (see Table 6 for AMEs).

Next, I assess whether the main findings reflect a general tendency to appoint new CEOs. Table 7 reports results for the probability of appointing any new external CEO, regardless of gender. The coefficient on DDD_{t-1} is negative and weakly significant, suggesting that the presence of daughters among directors does not generally increase CEO turnover, but specifically supports the appointment of female CEOs.

To further validate the findings, Table 8 focuses on the likelihood of appointing a male CEO. The share of male directors with daughters is negatively associated with male CEO appointments, consistent with earlier results. Additionally, a greater number of female (male) directors is associated with a lower (higher) probability of appointing a male CEO. Educated and outside directors also exhibit a lower propensity to appoint male CEOs.

Finally, I test whether the observed effect extends to female directors with sons. Table 10 replaces DDD with DMS (Director Moms with Sons) as the main explanatory variable. The results show a significant negative effect of DMS on the likelihood of appointing a male CEO. A similar pattern emerges for DMD (Director Moms with Daughters), with the effect being even stronger. These findings suggest that the underlying mechanism may reflect broader parent-of-daughters effects on gender attitudes, reinforcing the conclusion that personal family experiences shape decision-making in executive appointments.

Table 5: Probit - New external female CEO

	New external female CEO$_{t-1}$				
	(1)	(2)	(3)	(4)	(5)
DDD ND$_{t-1}$	0.811***	0.802***	0.805***	0.778**	0.735**
	(0.307)	(0.307)	(0.305)	(0.303)	(0.314)
Log(total assets)$_{t-1}$	-0.052	-0.055	-0.047	-0.051	-0.055
	(0.032)	(0.034)	(0.034)	(0.034)	(0.034)
Board size$_{t-1}$		0.008			
		(0.021)			
Female directors$_{t-1}$			0.109*	0.109*	0.094*
			(0.057)	(0.056)	(0.057)
Male directors$_{t-1}$			-0.009	-0.026	-0.033
			(0.023)	(0.024)	(0.024)
Out directors$_{t-1}$				0.229**	0.244**
				(0.099)	(0.099)
Board HC$_{t-1}$					0.525**
					(0.217)
Constant	1.450**	1.477**	1.336**	1.367**	1.431**
	(0.649)	(0.665)	(0.669)	(0.663)	(0.661)
Observations	1524	1519	1519	1519	1519

Robust standard errors in parentheses. Industry and year fixed effects included in all specifications.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Probit - New external female CEO - AME

	(1)	(2)	(3)	(4)	(5)
DDD ND$_{t-1}$	0.263***	0.260***	0.260***	0.251***	0.236**
	(0.099)	(0.099)	(0.098)	(0.097)	(0.100)
Log(total assets)$_{t-1}$	-0.017	-0.018	-0.015	-0.016	-0.018
	(0.010)	(0.011)	(0.011)	(0.011)	(0.011)
Board size$_{t-1}$		0.003			
		(0.007)			
Female directors$_{t-1}$			0.035*	0.035*	0.030*
			(0.018)	(0.018)	(0.018)
Male directors$_{t-1}$			-0.003	-0.008	-0.011
			(0.007)	(0.008)	(0.008)
Out directors$_{t-1}$				0.074**	0.078**
				(0.032)	(0.032)
Board HC$_{t-1}$					0.169**
					(0.069)
Observations	1524	1519	1519	1519	1519

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7: Probit - Any new external CEO

	(1)	(2)	(3)	(4)	(5)	(6)
			New External CEO$_t$			
DDD$_{t-1}$	-0.035**	-0.026	-0.030*	-0.030*	-0.029*	-0.029*
	(0.015)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)
DDS$_{t-1}$		0.021	0.015	0.015	0.016	0.016
		(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Board size$_{t-1}$			-0.019***			
			(0.003)			
Female directors$_{t-1}$				-0.012	-0.016**	-0.014*
				(0.008)	(0.008)	(0.008)
Male directors$_{t-1}$				-0.020***	-0.027***	-0.026***
				(0.003)	(0.004)	(0.004)
Out directors$_{t-1}$					0.098***	0.097***
					(0.014)	(0.014)
Board HC$_{t-1}$						-0.063**
						(0.030)
Log(total assets)$_{t-1}$	-0.154***	-0.154***	-0.144***	-0.144***	-0.145***	-0.145***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
Constant	0.915***	0.908***	0.795***	0.792***	0.796***	0.796***
	(0.093)	(0.093)	(0.096)	(0.096)	(0.096)	(0.096)
Observations	287143	287143	287143	287143	287143	287143

Cluster robust standard errors in parentheses. Industry and year fixed effects included in all specifications

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 8: Probit - New external Male CEO

	New external male CEO$_{t-1}$					
	(1)	(2)	(3)	(4)	(5)	(6)
DDD$_{t-1}$	-0.108**	-0.106**	-0.109**	-0.111**	-0.110**	-0.115**
	(0.042)	(0.046)	(0.046)	(0.046)	(0.046)	(0.046)
DDS$_{t-1}$		0.004	0.001	-0.002	-0.002	-0.006
		(0.044)	(0.044)	(0.044)	(0.044)	(0.044)
Board size$_{t-1}$			-0.011			
			(0.009)			
Female directors$_{t-1}$				-0.137***	-0.133***	-0.118***
				(0.025)	(0.024)	(0.024)
Male directors$_{t-1}$				0.019*	0.028**	0.035***
				(0.011)	(0.011)	(0.011)
Out directors$_{t-1}$					-0.104**	-0.115***
					(0.042)	(0.042)
Board HC$_{t-1}$						-0.437***
						(0.086)
Log(total assets)$_{t-1}$	0.045***	0.045***	0.050***	0.044***	0.045***	0.050***
	(0.013)	(0.013)	(0.014)	(0.014)	(0.014)	(0.014)
Constant	-1.134***	-1.136***	-1.194***	-1.116***	-1.126***	-1.189***
	(0.264)	(0.264)	(0.269)	(0.270)	(0.270)	(0.269)
Observations	7913	7913	7913	7913	7913	7913

Clustered robust standard errors in parentheses. Industry and year fixed effects included in all specifications.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

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Table 9: Probit - New external Male CEO

New external male CEO$_t$

	(1)	(2)	(3)	(4)	(5)	(6)
DMS$_{t-1}$	-0.216***	-0.221***	-0.227***	-0.039	-0.037	-0.044
	(0.054)	(0.054)	(0.055)	(0.063)	(0.063)	(0.063)
DMD$_{t-1}$		-0.232***	-0.240***	-0.048	-0.045	-0.047
		(0.059)	(0.060)	(0.068)	(0.068)	(0.068)
Board size$_{t-1}$			0.006			
			(0.009)			
Female directors$_{t-1}$				-0.150***	-0.149***	-0.132***
				(0.028)	(0.028)	(0.028)
Male directors$_{t-1}$				0.031***	0.037***	0.044***
				(0.010)	(0.011)	(0.011)
Out directors$_{t-1}$					-0.068*	-0.077*
					(0.040)	(0.040)
Board HC$_{t-1}$						-0.447***
						(0.083)
Log(total assets)$_{t-1}$	0.049***	0.059***	0.056***	0.046***	0.047***	0.051***
	(0.011)	(0.013)	(0.014)	(0.014)	(0.014)	(0.014)
Constant	-1.039***	-1.391***	-1.356***	-1.227***	-1.233***	-1.294***
	(0.228)	(0.257)	(0.262)	(0.263)	(0.263)	(0.262)
Observations	7913	7913	7913	7913	7913	7913

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 10: Summary of Probit Model Results for New External Male CEO

New external male CEO$_t$	(1)	(2)	(3)	(4)	(5)	(6)
DMS$_{t-1}$ (Director Moms with Sons)	-0.216***	-0.221***	-0.227***	-0.039	-0.037	-0.044
	(0.054)	(0.054)	(0.055)	(0.063)	(0.063)	(0.063)
DMD$_{t-1}$ (Director Moms with Daughters)		-0.232***	-0.240***	-0.048	-0.045	-0.047
		(0.059)	(0.060)	(0.068)	(0.068)	(0.068)
Board size$_{t-1}$			0.006			
			(0.009)			
Female directors$_{t-1}$				-0.150***	-0.149***	-0.132***
				(0.028)	(0.028)	(0.028)
Male directors$_{t-1}$				0.031***	0.037***	0.044***
				(0.010)	(0.011)	(0.011)
Out directors$_{t-1}$					-0.068*	-0.077*
					(0.040)	(0.040)
Board HC$_{t-1}$						-0.447***
						(0.083)
Log(total assets)$_{t-1}$	0.049***	0.059***	0.056***	0.046***	0.047***	0.051***
	(0.011)	(0.013)	(0.014)	(0.014)	(0.014)	(0.014)
Constant	-1.039***	-1.391***	-1.356***	-1.227***	-1.233***	-1.294***
	(0.228)	(0.257)	(0.262)	(0.263)	(0.263)	(0.262)
Observations	7913	7913	7913	7913	7913	7913

Standard errors in parentheses. Industry and year fixed effects included in all specifications.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

6 Concluding Remarks

This paper has examined how male corporate directors' family structures – specifically, fathering daughters – relate to their professional choices in the context of CEO recruitment. The empirical results reveal a robust and economically meaningful daughter effect: firms with a higher proportion of male board members who have daughters are significantly more likely to appoint a female CEO. This suggests that personal experiences can influence gender-related outcomes in corporate governance in meaningful ways.

A key strength of the study lies in its identification strategy. By focusing on directors who had their first-born daughter after joining the board, the analysis leverages a plausibly exogenous variation in child gender – minimizing the risk that companies selectively appoint directors based on their existing family composition. Since the gender of a child is essentially random, this design supports a causal interpretation: directors' shifting preferences appear to be shaped by life events rather than by pre-existing traits.

However, an important limitation arises from the structure of the Swedish register data: child gender is only observable once the child reaches age 16. Consequently, the analysis cannot determine with certainty whether a director became the father of a daughter while serving on the board. This constraint precludes the ideal sequencing for a clean causal test – observing that fatherhood precedes the appointment of a female CEO.

Given this limitation, the results should be interpreted with caution regarding effect sizes. While the estimated coefficients are positive and statistically significant, I refrain from making strong claims about their magnitudes. Instead, the findings point to a consistent pattern aligned with the theoretical prediction. The use of child gender as an instrument nonetheless constitutes a novel empirical contribution and lays the groundwork for future research.

Further studies could explore richer data sources with more precise temporal resolution, or employ survey-based instruments that measure attitudinal shifts following personal events. Experimental designs, field interventions, or cross-national replications could also enhance understanding of the daughter effect's generalizability and underlying mechanisms.

The dataset's scope presents additional empirical constraints. First, it is limited to Sweden and focuses on SMEs, which may differ from larger or publicly listed firms in both governance and hiring practices. Second, although the birth timing condition helps address concerns about selection, the reliance on identifying child gender among directors who became parents during their tenure reduces sample size and limits statistical power in some robustness checks. Third, the time span of the data is relatively short, which restricts the analysis of long-term effects.

Nonetheless, the findings underscore how personal experiences can shape organizational

outcomes, challenging standard economic assumptions of fixed and exogenous prefer-
ences. They resonate with a growing literature that integrates identity, social values,
and life experience into models of decision-making. In particular, fathering daughters
may increase male leaders' sensitivity to gender equity concerns, even in elite corporate
settings.

This study also contributes to broader discussions in behavioral economics on pref-
erence formation and change. While traditional models assume stable utility functions,
the daughter effect suggests that deeply personal events can shift decision criteria in
systematic ways. Whether such shifts reflect rational updating or bounded rationality
remains an open question.

From a policy perspective, the findings imply that exposure to gendered life experi-
ences may influence elite decision-making beyond the effects of formal interventions.
Future research might profitably examine the neurobiological mechanisms behind the
daughter effect, using tools from neuroeconomics or social psychology to explore how
empathy, identity salience, or implicit bias intersect with corporate behavior.

Ultimately, the paper highlights that in the realm of economic governance, the personal
and the professional are closely intertwined. A more nuanced view of decision-makers as
socially embedded individuals – shaped by both private and professional experiences –
may enrich our understanding of leadership, corporate outcomes, and economic theory.

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