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Gender quotas between glass ceiling crack and firm performance: evidence from Italy's financial sector

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GENDER QUOTAS BETWEEN GLASS CEILING CRACK AND FIRM PERFORMANCE: EVIDENCE FROM ITALY'S FINANCIAL SECTOR

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Highlights

- Gender quotas in the financial sector reduce the glass ceiling barriers increasing the presence of women on boards in both companies directly targeted by quotas and in those that are not.
- The increase of the percentage of women directors in the financial sector does not necessarily produce beneficial effects on firm performance, excepting in the case of companies that have a small board.
- We encourage the adoption of gender quotas laws, as they increase board gender diversity and break the glass ceiling in a sector which is a traditional male domain.

Abstract

Using a panel data of Italian corporate companies, this paper evaluates the impact of mandatory gender quotas in corporate boards in the financial sector. We find that gender quotas reduce glass ceiling barriers in this traditionally male industry, increasing women's presence on boards of both companies targeted by the law and in those that are not, with positive spillover effects on this subsample. We also find that the higher women's presence on boards has different impacts on firms' financial performance: it has a negative effect on the financial sector as a whole and a positive one on firms with small boards. Our results support the introduction of gender quotas, given its positive spillover effects on glass ceiling barriers and on the overall increased women's presence on boards.

Keywords: Gender quotas, Glass ceiling, Financial performance, Small corporate boards, Italian

Financial sector

JEL: C10, G38, J16

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1. Introduction

The introduction of gender quotas on corporate boards is an important affirmative action adopted in several countries, including Italy in 2011. Empirical works evaluate the impact of gender quotas in relation to specific firm outcomes, such as their effects on risk-averse attitudes and on firm financial performance (Kinateder et al. 2022). Nonetheless, in our knowledge there is no evidence of studies focusing on the effects of gender quotas on the glass ceiling barriers in the financial sectors that assess also their possible spillover effects on companies not targeted by this new regulation. Moreover, there are no studies that compare the impact of women's presence on firm performance in specific contextual factors in this industry, such as companies with small board of directors. The aim of our research is twofold. We firstly analyze the effect of gender quotas on board gender diversity in the financial sector, i.e., an industry that is a traditionally male domain (Ramos 2022, Knights & Tulberg 2013). Secondly, we evaluate the impact of a higher presence of women directors on firm-performance in specific contexts in this sector, i.e., firms with small boards, which literature suggests to be characterized by more inclusive communication and decision-making processes (Post & Byron 2015, Yermack 1996).

2. Theoretical background

The financial sector is historically characterized by strong glass ceiling barriers, which obstacle women from advancing in their careers and achieving higher executive roles such as the presence of unequal performance appraisal, cultural barriers and obstacles for accessing influential networks (Ramos et al. 2022, McKinsey et al. 2018). Moreover, women who are employed in this sector are exposed to higher gender pay gap and exclusion from strategic decisions, meetings and informal events (Homroy & Shibashish 2021). Nonetheless, the financial sector is also characterized by low presence of family firms, which enhance the number of female directors by appointing in the board the women of the owner-family. The major aim of gender quotas is to reduce glass ceiling and related

gender barriers, increasing women participation in strategic positions. Therefore, an analysis of changes occurred in gender board diversity in the financial sector provides us some insights about the effectiveness of this law and the dimension of its effects.

3. Data and methodology

Our dataset combines information from R&S Mediobanca[1], Italy's largest investment bank, and AIDA, the databank of the Italian joint-stock companies of Bureau Van Dijk. The sample consists of 116 firms observed in the benchmark years 2010, before the introduction of mandatory gender quotas for listed firms and state-participated enterprises, and 2017, after the full implementation of the new regulation[2]. The variables used in the empirical analysis are presented in Table 1.

Table 1: Variable definition

ROE	Return on Equity, expressed by the ratio of the net income on shareholder equity.
ROA	Return on Asset, identified by the ratio between the net income on total assets.
Women on boards (Wob)	Ratio between the number of women and the number of total directors in the board.
Board size	Number of total directors in the board.
Firm size	Natural logarithm of total assets.
Law	Dummy variable equals to1 for the 2017 and 0 for 2010.

[1] We selected from the Mediobanaca's annual report of the major Italian joint-stock companies "*Le principali società Italiane"* those enterprises with the highest total asset in 2010 and 2017.
[2] Among the 116 companies, 23 are financial (20%) and the other 93 are non-financials.

Financial	Dummy variable equals to 1 for the financial sector and 0 otherwise (for public utilities, manufacturing, services and other sectors)
Small company board	Dichotomous variable equals to 1 for boards composed by a maximum of 8 members and 0 for greater values.

In the empirical strategy, we firstly estimate T-tests for evaluating the presence of significant sectoral differences in terms of ROE, ROA and the Women on board (Wob) before and after the GML. Secondly, the following panel specifications are used to describe the effects of GML on gender representation on board of directors of companies in the financial sectors (model 1) and the gender board diversity impact on firm performance in the financial sector (model 2)

$$(1)\ Wob_{it} = \beta_1 (Law \times Financial)_{it} + \beta_3 Law_t + x'_{it}\gamma + \alpha_i + \varepsilon_{it}$$

$$(2)\ Performance_{it} = \beta_1 Wob_{it} + \beta_2 Inter_{it} + \beta_3 Law_t + x'_{it}\gamma + \alpha_i + \varepsilon_{it}$$

With $i = 1 \ldots 116$ and t = 2010, 2017 and x_{it} a vector of control variables represented by Firm size and Board size. Equation (1) is estimated both on all the enterprises of our dataset and in a subgroup represented only by not listed and not participated firms (NLNP) to assess the existence of positive spillover effects and a reduction of glass ceiling barriers also for firms not mandated to comply with gender quotas. Equation (2) is applied to different specifications with ROE or ROA as dependent variable. *Inter* identifies the interaction (Wob × Financial) or (Wob × Financial × Small company board) depending on the model considered. The interaction (Wob × Financial) pictures the specific impact of women on performance in the financial sector, while the interaction (Wob × Financial × Small company board) permits to evaluate the impact on the performance in the financial sector when the presence of women on boards of small size increases. $\propto_i$ identifies entity fixed effects varying

across companies and fixed over time. Law takes into account the change in Wob and Performance from 2010 to 2017 due to the gender quotas law and/or other potential omitted variables that have remained fixed across companies but which have varied during this time span.

4. Results and discussion

T-tests on the percentage of women directors and firm performance indicators between the financial and non-financial sectors are computed for both 2010 and 2017 (Table 2). The findings are as follows (i) women in 2010 were significantly less represented in the financial sector with respect to the non-financial one, which includes all remaining industries, i.e., manufacturing, public utilities, services and others, (ii) financials had a worse performance than non-financials in both 2010 and 2017.

Table 2: T-tests and average values of women on boards and financial indicators in 2010 and 2017

	Financial	Non -Financial	T-test	P-value
		Year 2010		
Wob	0.034	0.065	|2.056|	0.04
	(0.054)	(0.097)		
ROE	0.051	0.080	|1.661|	0.100
	(0.046)	(0.152)		
ROA	0.004	0.027	|5.069|	<0.001
	(0.011)	(0.036)		
N	23	93		
		Year 2017		
Wob	0.263	0.220	|1.231|	0.221
	(0.161)	(0.219)		
ROE	0.014	0.096	|2.394|	0.018
	(0.169)	(0.140)		
ROA	0.003	0.029	|5.014|	<0.001
	(0.014)	(0.038)		
N	23	93		

Note. Standard errors are in parenthesis. T-tests in absolute values.

Specifically, in 2010 financial companies accounted significantly lower levels of ROA, while in 2017 they had significantly lower levels of both ROE and ROA, (iii) financials show the higher increase of female directors from 2010 to 2017, as women jumped from 3% of directors in 2010 to 26% in 2017. This suggests that gender quotas has produced a visible growth in the presence of women on boards across all the considered companies and with a major intensity in financials.

Models 1 and 2 in Table 3 analyze the increase of women directors in the financial sector from 2010 to 2017. This exercise is conducted on a subgroup of enterprises (the NLNP) which were not targeted by mandatory gender quotas, (Model 1), and on all financials in our dataset, (Model 2). We find that the women's presence on boards has grown more among financials than among non-financials: the interaction term (Law × Financial) is positive and significant both in Models 1 and 2. This supports that gender quotas produce positive spillover effects also on enterprises not required to meet this regulation and typically characterized by gender barriers, that gender quotas seem to have reduced.

We also evaluate the performance indicators (ROE and ROA) with a special focus on the financial sector. Our results suggest that the specific impact of women on firm performance in the financial sector is negative, but statistically significant only with the ROE indicator (Model 3 and Model 5). This negative relationship can be due to the glass ceiling barriers which are particularly strong in this industry. At the same time, we find that the impact of women directors in financials that have a small board is positive on both firm performance indicators, as reported in Model 4 and Model 6[3]. This result can be due to the fact that small boards facilitate participation in decision making, sharing of information, reducing gender stereotypes and glass ceiling barriers (Post & Byron 2015, Nguyen & Faff, 2007, Yermack 1996). Moreover, the reduction of glass ceiling barriers and the different dynamics of the boards of small dimensions promote a higher gender diversity among directors.

[3] This outcome is reinforced by the following results, available on request. The analysis on the only dummy variable "Small company board" and on the interaction term "Small company board × Financial" led to inconclusive results, mostly positive but non-significant. We also find a negative impact of small company boards of the financial sector on ROA, which turns to be positive when we consider also the variable relating Women on Boards, i.e. adopting the interaction Wob× Small company board× Financial.

Board gender diversity is linked to better financial outcomes, as result of a major variety of viewpoints and a better board effectiveness (Wahid 2019). We suggest that future research investigates women's role in small boards in plan relation to the female leadership and decision-making dynamics which characterize these contexts.

Table 3: Panel fixed-effects models on the performance indicators and on Women on boards (Wob).

	Y= Wob		Y = ROE		Y= ROA	
	(1)	(2)	(3)	(4)	(5)	(6)
Wob			0.011	-0.081	-0.001	-0.009
			(0.106)	(0.104)	(0.026)	(0.023)
Law	0.034*	0.14***	0.002	0.004	0.001	0.001
	(0.018)	(0.020)	(0.028)	(0.028)	(0.006)	(0.006)
Board size	-0.010**	-0.001	-0.007*	-0.006	-0.001	-0.001
	(0.004)	(0.004)	(0.004)	(0.004)	(0.009)	(0.000)
Firm size	0.048*	0.064*	0.037	0.056	-0.002	-0.001
	(0.025)	(0.034)	(0.004)	(0.047)	(0.008)	(0.007)
Law × Financial	0.741***	0.106**				
	(0.122)	(0.043)				
Financial × Wob			-0.270*		-0.025	
			(0.148)		(0.024)	
Financial × Wob ×Small company board				0.190*		0.014
				(0.106)		(0.018)
R-squared within	0.446	0.525	0.043	0.029	0.014	0.011

Note. All the models have fixed effects and clustered standard errors for the variable id.

Our overall results support the existence of a differentiated impact of the women on firm performance in financial sector, which is strictly linked to firms' cultural and organizational environments. In fact, we document a negative impact on the firm's performance in the financial as a whole, which contrasts with the outcome of positive effect of a higher women's presence in small boards.

Conclusions

This paper shows that the introduction of mandatory gender quotas for listed and state-partecipated companies has increased significantly the presence of women on boards of Italy's largest financial companies, with positive spillover also for NLNP enterprises – not subject to this regulation. We believe that gender quotas have had a positive impact in reducing the glass ceiling and leading women to be more represented in apical positions in this typically male sector.Moreover, the different impact of higher board gender diversity on firm performance in the financial sector as a whole, that is significantly negative, and in firms with small boards, that is significantly positive, can be due to the latter's specific organizational and cultural models that favor a more active participation of every director in the board's decision-making process. Our results encourage the promotion of regulatory policies as gender quotas as well as managerial strategies for reducing gender barriers and discrimination, leading women to be more effective and represented in apical positions.

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