

## ACADEMICS IN THE BOARDROOM: THE EFFECT OF A GENDER QUOTA REGULATION

PAOLA DE VINCENTIIS\* and NOEMI OGGERO†

*Department of Management, University of Turin  
Corso Unione Sovietica 218bis, 10134 Torino, Italy*

*\*paola.devinctiis@unito.it*

*†noemi.oggero@unito.it*

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In the framework of literature devoted to corporate governance and board composition, we take a peculiar viewpoint and focus on the presence of university professors in the governing body of Italian banks. In particular, we test whether the gender quota regulation increased the presence of female professors as directors. We find evidence of a relevant increase in the probability of designating women from the academia in the years immediately following the entry into force of the gender quota regulation in Italy, whereas no significant increase is in place for male professors over the same period. Our results suggest the need to enhance the career opportunities for women up the C-levels in order to fuel diversity in the boardrooms, not only in independent but also in executive roles. In light of the empirical evidence provided, a re-thinking of gender quota regulations would also be advisable in order to better pursue the desired outcomes.

*Keywords:* Banking; gender; gender quota; board of directors; female directors; glass ceiling.

*JEL Classifications:* G21, J16, K38

### 1. Introduction

What makes a good board of directors? Does board composition affect corporate performance, risk appetite and sustainability? Is diversity beneficial or detrimental to board effectiveness? What are the roles and importance of non-executive outsider directors? These and other questions attracted enormous attention, both at academic and regulatory levels, after a few shocking corporate meltdowns took place at the beginning of the millennium, in particular the Enron and WorldCom collapses. More recently, the debate focused on the issue of gender diversity. The evidence of a relevant under-representation of women on the board of directors surfaced as a

\*Corresponding author.

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critical problem to be addressed, either through moral suasion or through harder measures based on compulsory gender quotas.

In the framework of this long-standing debate, we adopt a peculiar viewpoint and explore the presence of academics in corporate boards in conjunction with minimum gender diversity imposed by quota regulations. In particular, we address the following question: Do gender quota regulations boost the presence of academic directors of the least represented gender? We expect an increase in the probability of appointing a female academic as director following the entry into force of the minimum gender quota rule. The rationale for this hypothesis is twofold. On the one hand, the designation of university professors may be perceived as less invasive and threatening by the dominating gender elite. In other words, being forced to introduce a woman in the boardroom, men would tend to choose an outsider who is felt as less menacing for the internal equilibria. In line with this argument, [Wearing & Wearing \(2004\)](#) found that women on board in the UK tend to be excluded from more prestigious roles, such as the presidency of committees, with a negative impact on their total compensation as well. Thus, sitting in the board of directors does not automatically grant full access to the inner power circle. On the other hand, due to the glass ceiling affecting women's career opportunities in top managerial positions ([Tharenou et al. 1994](#)), the designation of female executive directors could be limited by the availability of candidates with suitable level of professionalism and experience. The scarcity of women in the top layer of managerial positions would force banks — constrained by a compulsory gender quota — to look for suitable candidates outside the firm. We expect the issue to be particularly relevant in the banking sector where the Supervisory Authorities impose very stringent fit and proper criteria for the designation of directors.

Despite the rich research on board composition and gender quota regulations' effects, the topic of academic presence in corporate governing bodies has been addressed by only few papers. [White et al. \(2014\)](#) found that academic directors tend to be appointed by small and mid-cap firms expanding their boards. They also found that market reaction to the appointment of a professor depends on background and university affiliation. [Jiang & Murphy \(2007\)](#), [Francis et al. \(2015\)](#) and [Liu \(2020\)](#) showed that companies with academic directors tend to be characterized by better performance and stronger monitoring. [Peterson & Philpot \(2009\)](#) proved that academic directors are appointed to increase board diversity and to improve the relationship with the stakeholders and the local community. [Cho et al. \(2017\)](#) investigated the impact of academic directors on corporate social responsibility and found a positive correlation. Even though not specifically focusing on the academic presence, [Hillman et al. \(2002\)](#) found that female and Afro-American directors are more likely to come from non-business background, confirming a prevalent outsider role for the minorities.

To the best of our knowledge, no previous research paper has analyzed the interplay between the gender quota legislation and the probability of appointing a university professor of the least represented gender. Exploring the behavior of

companies in selecting the board composition when constrained by a gender quota rule is relevant from different points of view. First, the role and background of the “minority” directors — executive versus non-executive, insider versus outsider — have an impact on their potential weight on the decision-making processes of the governing body. A prevalence of outsider and non-executive roles for women may not be fully in line with the empowerment objectives pursued by the legislator. Second, a prevailing non-business background of the directors belonging to the least represented gender reveals a potential scarcity of candidates in the managerial teams with appropriate levels of knowledge, skills and seniority, due to the glass ceiling phenomenon. The gender quota legislation, applied to the board composition, would thus require integrative measures to ensure equal opportunities in career development for men and women.

Our work focuses on the evolution of board compositions in the Italian banking sector over a period of 13 years, from 2006 to 2018. The choice of the banking sector is motivated by the peculiar stringency of regulatory requirements concerning individual directors and the board as a whole. In line with the requirements by Article 91 (12) of the Directive 2013/36/EU (CRD) and Article 9 of the Directive 2014/65/EU, both the European Banking Authority and the European Central Bank set precise and demanding criteria to be evaluated during the so-called Fit and Proper Assessments. This assessment — that is performed by the Supervising Authority after the designation by the shareholders’ assembly — may bring to the objection and request for substitution of board members that are deemed not to satisfy the required criteria. These criteria concern the knowledge, skills and experience, the reputation, the potential for conflicts of interest and the time commitment. The severity and stringency of fit and proper criteria upscale the potential offering constraints of female directors with appropriate skills and managerial experience, increasing the difficulty in finding suitable candidates, especially for executive positions. Furthermore, the banking sector is traditionally characterized by a strong masculine culture that has prevented, even more than elsewhere, a spontaneous increase of female presence in C-suites and board of directors (Cardillo *et al.* 2020, Girardone *et al.* 2021, Arnaboldi *et al.* 2021).

The choice of Italy is motivated by two concurring elements. First, the country used to score particularly low in terms of female representation in corporate boardrooms (Table 1). Second, in 2012, the Golfo-Mosca Law introduced a compulsory quota for the least represented gender in the board of directors of listed companies. The minimum quota was set at 20% at the first mandate renewal after 2012 and raised to 33% at the second renewal. Thanks to this regulation, Italy climbed up the European rankings and became, in a few years, one of the countries with larger female representation in corporate boards of listed companies (Table 1). Thus, Italy represents a sort of natural experiment and is particularly suited for studying the effects of gender quota regulations.

Our estimates show that the gender quota reform caused an increase in the presence of female professors in bank boards, instead of providing an opportunity of career growth to women not in the academia but already working in the field.

Table 1. Shares of women (%) on the boards in EU countries (larger listed companies, all sectors).

Country	2006	2009	2012	2015	2018	$\Delta_{2018-2006}$
<i>Countries with gender quota legislation in place</i>						
France <sup>1</sup>	7.6	10.2	25.1	35.6	43.9	36.3
Italy <sup>2</sup>	3.6	4	10.8	28.6	36.4	32.8
Germany <sup>3</sup>	11.2	12.9	17.9	26.1	33.8	22.6
Belgium <sup>4</sup>	5.8	7.6	12.9	26	32	26.2
The Netherlands <sup>5</sup>	8.4	15	21.5	25.5	30.7	22.3
Spain <sup>6</sup>	4.5	9.6	12.3	18.7	23.7	19.2
Austria <sup>7</sup>	5.9	7	11.9	20	26.1	20.2
Greece <sup>8</sup>	7.9	5.1	7.9	9.8	9.1	1.2
Average	6.8	8.9	15	23.8	29.4	22.6
<i>Countries without gender quota legislation in place</i>						
Sweden	24.4	26.8	25.5	32.6	36.1	11.7
Finland	20.4	23.6	28.6	29.2	34.5	14.1
Latvia	20.9	17.1	28.2	30.4	29	8.1
Slovenia	19.3	10	18.7	21.5	27.9	8.6
Denmark	12.1	17.6	20.8	25.8	27.7	15.6
Slovak Republic	9.7	18.2	13.8	12.7	24.1	14.4
Portugal	6.8	3.7	7.4	13.5	21.6	14.8
Poland	9.4	9.5	11.8	19.4	21	11.6
Ireland	5.1	8.3	8.7	15.3	18.7	13.6
Hungary	11.5	13.3	7.4	17.8	14.9	3.4
Czech Republic	7.6	13.3	16.4	10.4	13.8	6.2
Luxembourg	1	2.7	9.7	12.1	13.3	12.3
Lithuania	15.6	15	17.8	14.3	10.8	-4.8
Estonia	13.1	6.4	7.8	8.1	8	-5.1
Average	12.6	13.2	15.9	18.8	21.5	8.9

Source: European Institute for Gender Equality, Gender Statistics Database. The information on the gender quota regulation is taken from the European Commission’s “Gender balance on corporate boards” (2016), pp. 7–8. <sup>1</sup>From 2011; minimum quota of 40% to be achieved by 2017. <sup>2</sup>From 2012; minimum quota of 33% to be achieved by 2015. <sup>3</sup>From 2016; minimum quota of 30%. <sup>4</sup>Minimum quota of 33% to be achieved by 2017. <sup>5</sup>Target of 30% by 2016. <sup>6</sup>Minimum quota of 40% to be achieved by 2015. <sup>7</sup>Minimum quota of 35% to be achieved by 2018 in state-owned companies only. <sup>8</sup>Minimum quota of 33% in state-owned companies only.

This finding is corroborated by the fact that we did not find evidence of a similar trend among men.

The rest of the paper is organized as follows. Section 2 introduces the data and provides some descriptive statistics. Section 3 describes the estimation strategy. Section 4 presents the main estimation results. Section 5 concludes the paper.

## 2. Data

To investigate how the boards’ composition changed with the reform, we hand-collected data on the members of listed banks’ boards in Italy between 2006

and 2018, using the online public registry held by the Chamber of Commerce (Infocamere). Indeed, the so-called Golfo-Mosca Law that imposed listed banks and firms to have a minimum quota of the least represented gender in their boards entered into force in 2012. The minimum quota was set at 20% for the first board renewal after January 1, 2012 and raised to 33% for the second one. Hence the adjustment happened gradually, in function of the length of mandates and their end dates. As mandates of board members usually last for at least 3 years, in our analysis we decided to focus on a time span that covers 6 years prior and 7 years after the implementation of the reform. Thus, in most cases, we included two board renewals before and two after the gender quota regulation.

In particular, we considered all the listed banks which were active throughout the period 2006–2018 and we collected data on the individuals who sat on the listed banks' boards between January 1, 2006 and December 31, 2018. While we are interested in the effects of such a reform on the female composition of boards, we collected information on both female and male directors for a necessary comparison. Indeed, we conduct our empirical analysis on the men subsample too, which should not be directly affected by the reform.<sup>a</sup>

For all the board members of listed banks between 2006 and 2018, we collected names and surnames, gender, birthdate and the age at the beginning of the mandate. Also, for all the directors, we collected the date of first appointment, which could be prior to 2006 as mandates may be renewed. Furthermore, we have information on whether a member sits on the board of a popular bank. To investigate the potential change in the presence of female academics in bank boards after the reform, we merged the data on the board members of listed banks with the archive of professors in the Italian universities, which is available on the website of the Italian Ministry of University. To minimize cases of homonymy, we looked at the lists of professors belonging to the research areas of business and management, economics and law, as defined by the Italian university regulation.

Our final sample includes 926 male and female directors for whom we have complete information on the characteristics that are relevant to our empirical analysis. Table 2 summarizes the descriptive statistics for the whole sample of board members of listed banks between 2006 and 2018. The composition of the sample is strongly shifted toward men, as only 16% of board members are women. The average age at which individuals entered a board of directors is 57 years. While there are some outliers as indicated by the minimum and maximum values, the median age in our sample is 57 years as well. Table 2 also shows that 12% of individuals in our sample are board members of popular banks, while 37% have been appointed after 2012, i.e. the year the reform was implemented. Finally, more than one in 10 individuals in our sample (11%) are university professors.

<sup>a</sup>We recognize that an indirect effect could occur also for the male component, since the need to accommodate a few women in the board may decrease the seats available for men. However, the total dimension of the boards is not constrained and women may simply be added to current composition without replacing directly the former directors.

Table 2. Descriptive statistics (full sample).

	Mean	Std. dev.	Min	Max	Median
Female	0.16	0.36	0	1	0
Age	57.19	10.56	26	86	57
Popular_bank	0.12	0.32	0	1	0
Post-reform	0.37	0.48	0	1	0
Professor	0.11	0.31	0	1	0

Note: The number of observations is 926.

Table 3. Descriptive statistics by gender.

	Women ( $N = 146$ )			Men ( $N = 780$ )		
	Mean	Min	Max	Mean	Min	Max
Age	52.40	26	76	58.09	28	86
Popular_bank	0.12	0	1	0.12	0	1
Post-reform	0.84	0	1	0.28	0	1
Professor	0.18	0	1	0.10	0	1

Table 3 reports the descriptive statistics for male and female directors separately. The sample age appears to be slightly higher among the male members of listed banks' boards (58 years for men compared to 52 years for women), while the percentage of directors in popular banks is the same in the two subsamples (12%). The proportion of board members appointed after the implementation of the reform is much higher among women. Indeed, 84% of women sitting on the board of listed banks between 2006 and 2018 had been appointed after 2012. On the other hand, only 28% of male board members between 2006 and 2018 had been appointed after 2012. Thus, looking at the descriptive statistics, we see the significant effects of the reform in terms of female appointments. The last row of Table 3 also shows that the percentage of professors is higher among the female board members compared to their male counterparts: 18% of female directors are professors compared to 10% of male directors.

In order to investigate whether the presence of female academics increased after the implementation of the Golfo-Mosca Law, we use multivariate regression models.

### 3. Estimation Strategy

Our estimation strategy aims at exploring whether the women appointed in the board of directors of listed banks after the gender quota reform were more likely to be professors compared to the pre-reform period. To do so, we assume that the probability of having a professor among the female board members of a listed bank is a linear function of several temporal dummy variables. In a first specification, we regress the probability that a professor is appointed only on the dummy variable

“Post-reform” that indicates whether the directors have been appointed after January 1, 2012, i.e. the date of implementation of the reform. Then, we regress the probability of having a professor among the female board members on time dummies for the years from 2007 to 2018. Hence, we estimate the following regression model:

$$\begin{aligned} \text{Professor}_i = & \beta_0 + \beta_1 \text{Year2007}_i + \beta_2 \text{Year2008}_i + \beta_3 \text{Year2009}_i + \beta_4 \text{Year2010}_i \\ & + \beta_5 \text{Year2011}_i + \beta_6 \text{Year2012}_i + \beta_7 \text{Year2013}_i + \beta_8 \text{Year2014}_i \\ & + \beta_9 \text{Year2015}_i + \beta_{10} \text{Year2016}_i + \beta_{11} \text{Year2017}_i + \beta_{12} \text{Year2018}_i + \varepsilon_i, \end{aligned}$$

where  $i$  is the individual identifier and  $\varepsilon_i$  is an idiosyncratic error term. “Professor” is our dichotomous measure of being a professor and all the time variables are dummies taking a value of 1 if the year the mandate began for the individual  $i$  is the one indicated in the variable name. Our baseline category is represented by those who began their mandate prior to 2007. If our hypothesis is correct, we should observe an increase in the probability that a professor is appointed among the female members of a bank board only after 2012, i.e. after the reform was implemented. Moreover, we expect the effects to be larger in the first years of implementation of the gender quota law.

Next, in a less parsimonious specification, we include as control variables the age of the female director when she was first appointed and whether the bank is a popular one. We include this additional information in the following OLS specification:

$$\begin{aligned} \text{Professor}_i = & \beta_0 + \beta_1 \text{Year2007}_i + \beta_2 \text{Year2008}_i + \beta_3 \text{Year2009}_i + \beta_4 \text{Year2010}_i \\ & + \beta_5 \text{Year2011}_i + \beta_6 \text{Year2012}_i + \beta_7 \text{Year2013}_i + \beta_8 \text{Year2014}_i \\ & + \beta_9 \text{Year2015}_i + \beta_{10} \text{Year2016}_i + \beta_{11} \text{Year2017}_i + \beta_{12} \text{Year2018}_i + \beta_{13} \text{Age}_i \\ & + \beta_{14} \text{Popularbank}_i + \varepsilon_i, \end{aligned}$$

where “Age” is a discrete variable that we use as a proxy for the experience of the director and “Popular\_bank” is a dichotomous one. We control for the effect of the juridical form of the appointing bank because the peculiar limits to share ownership applying to popular banks may have an impact on the selection of board members. We first estimate linear probability models as the OLS models impose less assumptions and they are easier to interpret. We then redo all our estimates through probit models for robustness.

As discussed above, if our hypothesis is correct, we should observe an increase in the probability that a professor is appointed among the female members of a bank board after 2012, i.e. we expect positive and statistically significant coefficients on the time dummy variables representing the first years of implementation of the reform. Indeed, the gender quota imposed by the Golfo-Mosca Law was applicable from the first renewal of the board of directors after January 1, 2012, hence the compliance process happened gradually, in function of the length of mandates and their end dates.

Yet, one could argue that the growth in the presence of female professors in listed banks' boards of directors after 2012 is due to other factors we are not able to control for which have increased the attractiveness of having academics on board. In order to exclude this option, we conduct the empirical analysis discussed before on the sample of male directors. Indeed, if the increase of academic female directors after 2012 was not the effect of the reform, we should observe such a rise among the male directors too. By repeating the regression analysis on the male subsample, we are able to detect whether a trend in the presence of academics in bank boards was in place.

#### **4. Results**

The first regression results for the subsample of women are provided in Table 4. In the first column, we only include the dummy variable "Post-reform" that indicates whether the female directors had been appointed in 2012 or later. We find that the probability that a professor is appointed among the female members of a bank board was higher after the gender quota reform was implemented. To dig deeper into the impact of the reform, in the second column of Table 4 we regress the probability of having a professor among the female board members on time dummies for the years from 2007 to 2018. Indeed, the Italian law entailed a gradual increase in gender quota, due to the variation in board renewal years (Maida & Weber 2022). Our estimates show that the probability of having a professor among the female board members of a listed bank increased every year after the implementation of the reform. In particular, the post-reform trend of having professors among the female members of a bank board was bigger in magnitude and statistical significance in the years 2012 and 2015. The second column of Table 4 shows that the probability that a professor was among the female directors of a bank increased by 47 percentage points in 2012 and 23 percentage points in 2015.

In the third column of Table 4, we include as control variable the age of the individual when she was first appointed as director and we find that age is not associated with the probability of being a board member and a professor at the same time. Even after controlling for this individual-level characteristic, we still observe the rise in the presence of professors among the female members of a listed bank's board of directors. Finally, in the fourth column of Table 4, we include the information on whether the bank where the individual was involved is a popular one. Even when controlling for this additional bank-level characteristic, the estimates confirm a new trend of having professors among the female members of a bank board after the gender quota reform, i.e. after 2012. In particular, the estimates in the richer specification show that the probability that a professor was appointed among the female members of a bank board increased by 49 percentage points in 2012, 14 percentage points in the following year and 24 percentage points in 2015.

Up to now, we have showed that the gender quota reform caused an increase in the presence of female professors in bank boards, instead of providing an opportunity of career growth to women not in the academia but already working in the field. Yet,



Table 4. Multivariate regression model of having a professor among the female members of a listed bank's board of directors.

	(1) Professor	(2) Professor	(3) Professor	(4) Professor
Post-reform	0.168** (0.060)			
Year_2007		0 —	-0.006 (0.013)	0.003 (0.018)
Year_2008		0 —	0.014 (0.019)	0.022 (0.022)
Year_2009		0 —	-0.002 (0.010)	0.007 (0.016)
Year_2010		0.500 (0.379)	0.499 (0.370)	0.508 (0.375)
Year_2011		0 —	0.006 (0.014)	0.001 (0.018)
Year_2012		0.471*** (0.122)	0.481*** (0.129)	0.487*** (0.129)
Year_2013		0.130** (0.058)	0.136** (0.058)	0.141** (0.059)
Year_2014		0.100* (0.049)	0.101* (0.051)	0.097 (0.057)
Year_2015		0.235*** (0.068)	0.239*** (0.067)	0.243*** (0.067)
Year_2016		0.182** (0.085)	0.180* (0.090)	0.186* (0.089)
Year_2017		0.250* (0.134)	0.256* (0.130)	0.265* (0.134)
Year_2018		0.188* (0.091)	0.190* (0.094)	0.196* (0.097)
Age			0.002 (0.002)	0.002 (0.002)
Popular_bank				0.040 (0.083)
Observations	146	146	146	146
R-squared	0.025	0.118	0.120	0.121

Note: Coefficient estimates from OLS regressions, robust standard errors in parentheses. \* $p < 0.10$ , \*\* $p < 0.05$  and \*\*\* $p < 0.01$ .

one could argue that the rising presence of female professors in bank boards after 2012 is due to other factors, such as the increasing severity of the fit and proper scrutiny undertaken by the Supervising Authorities or the need to improve bank reputation.<sup>b</sup> If this was the case, we should observe the same new trend observed for women among the male members of listed banks' boards of directors as well.

<sup>b</sup>One could argue that the increasing presence of female academic directors could be driven by an increase in the number of female professors. Although career development opportunities actually improved for women in Italian universities over the period, this trend would not explain why the year 2012 should make any difference. If this was the explanatory factor, we would have observed a continuous increase in the presence of female professors in the boards of directors well before 2012.

Table 5. Multivariate regression model of having a professor among the male members of a listed bank's board of directors.

	(1) Professor	(2) Professor	(3) Professor	(4) Professor
Post-reform	0.009 (0.021)			
Year_2007		-0.020 (0.028)	-0.020 (0.027)	-0.006 (0.026)
Year_2008		0.034 (0.032)	0.031 (0.031)	0.041 (0.028)
Year_2009		-0.045 (0.035)	-0.048 (0.035)	-0.050 (0.038)
Year_2010		0.016 (0.042)	0.020 (0.046)	0.022 (0.047)
Year_2011		0.080* (0.039)	0.075* (0.041)	0.041 (0.054)
Year_2012		0.042 (0.045)	0.037 (0.044)	0.042 (0.044)
Year_2013		0.045 (0.038)	0.042 (0.041)	0.043 (0.042)
Year_2014		-0.036 (0.039)	-0.033 (0.043)	-0.054* (0.028)
Year_2015		0 (0.071)	-0.010 (0.073)	0.003 (0.073)
Year_2016		-0.095*** (0.021)	-0.094*** (0.024)	-0.080*** (0.023)
Year_2017		-0.095*** (0.021)	-0.108*** (0.024)	-0.096*** (0.023)
Year_2018		0.072 (0.068)	0.068 (0.067)	0.078 (0.068)
Age			-0.003*** (0.001)	-0.003*** (0.001)
Popular_bank				0.112*** (0.028)
Observations	780	780	780	780
R-squared	0	0.017	0.029	0.042

Note: Coefficient estimates from OLS regressions, robust standard errors in parentheses. \* $p < 0.10$ , \*\* $p < 0.05$  and \*\*\* $p < 0.01$ .

To verify this possibility, we conduct the same empirical analysis shown in Table 4 on the sample of male directors.

The regression results for the subsample of male members of a listed bank's board are reported in Table 5. In the first column, we immediately notice that the coefficient on the dummy variable indicating the post-reform period is not statistically significant. Moreover, in the second column of Table 5, the temporal dummies for the years after 2012 are never positive. This result is confirmed even after controlling for both the age of the director when he was first appointed and whether the bank is a popular one. Hence, we do not find evidence of a positive trend in the presence of

male academics in bank boards after 2012 and we even detect a negative sign for the years 2016 and 2017, which could be related to a sort of crowding out effect among men due to the entry of women and the consequent decrease in available seats.

If the increase of academic female directors after 2012 was not the effect of the reform, we should have observed an increase of professors among the male directors too. Since we did not find evidence of this trend among men, we can conclude that the gender quota reform caused a rise in the presence of professors among the female members of listed banks' boards of directors.

As in Tables 4 and 5 we estimated linear probability models, we now redo all our estimates through probit models. We first focus on the subsample of women in Table 6. Since for some years before 2012 the dependent variable takes a value of zero for all observations in those specific years and such observations would be dropped from the probit estimation automatically, we use as reference category the years prior to 2012. The first column of Table 6 confirms that the probability that a professor is appointed among the female members of a bank board was higher after the gender quota reform was implemented in 2012. Moreover, the estimates reported in columns 2–4 show that the probability of having a professor among the female

Table 6. Multivariate regression model of having a professor among the female members of a listed bank's board of directors (probit).

	(1) Professor	(2) Professor	(3) Professor	(4) Professor
Post-reform	0.235* (0.132)			
Year_2012		0.394*** (0.118)	0.406*** (0.121)	0.409*** (0.122)
Year_2013		0.141 (0.116)	0.146 (0.118)	0.149 (0.118)
Year_2014		0.104 (0.134)	0.102 (0.131)	0.096 (0.137)
Year_2015		0.238** (0.118)	0.241** (0.117)	0.242** (0.117)
Year_2016		0.193 (0.167)	0.191 (0.169)	0.193 (0.169)
Year_2017		0.250* (0.145)	0.257* (0.142)	0.262* (0.143)
Year_2018		0.199 (0.136)	0.199 (0.135)	0.201 (0.135)
Age			0.003 (0.002)	0.003 (0.002)
Popular_bank				0.031 (0.080)
Observations	146	146	146	146

Note: Probit average marginal effects, standard errors in parentheses.  
\* $p < 0.10$ , \*\* $p < 0.05$  and \*\*\* $p < 0.01$ .

Table 7. Multivariate regression model of having a professor among the male members of a listed bank’s board of directors (probit).

	(1) Professor	(2) Professor	(3) Professor	(4) Professor
Post-reform	0.009 (0.023)			
Year_2007		-0.023 (0.038)	-0.024 (0.038)	-0.009 (0.038)
Year_2008		0.032 (0.053)	0.029 (0.053)	0.041 (0.052)
Year_2009		-0.058 (0.051)	-0.060 (0.050)	-0.061 (0.050)
Year_2010		0.016 (0.059)	0.022 (0.058)	0.024 (0.058)
Year_2011		0.066 (0.044)	0.063 (0.044)	0.035 (0.044)
Year_2012		0.038 (0.042)	0.033 (0.042)	0.038 (0.042)
Year_2013		0.041 (0.042)	0.039 (0.042)	0.042 (0.041)
Year_2014		-0.044 (0.063)	-0.040 (0.062)	-0.068 (0.065)
Year_2015		0 (0.069)	-0.005 (0.067)	0.011 (0.066)
Year_2016		—	—	—
Year_2017		—	—	—
Year_2018		0.060 (0.051)	0.057 (0.050)	0.065 (0.050)
Age			-0.003*** (0.001)	-0.004*** (0.001)
Popular_bank				0.095*** (0.031)
Observations	780	744	744	744

*Note:* Probit average marginal effects, standard errors in parentheses.  
 \* $p < 0.10$ , \*\* $p < 0.05$  and \*\*\* $p < 0.01$ .

board members of a listed bank sharply increased in 2012. A lower increase — in terms of both magnitude and statistical significance — is observed in the years 2015 and 2017. Hence, the main findings from Table 4 are confirmed in Table 6 using probit models.

Finally, in Table 7 we focus on the subsample of men. The first column only reports the coefficient on the dummy variable indicating the post-reform period, which is not statistically different from zero. Moreover, in the second–fourth columns of Table 7, the temporal dummies are never statistically significant (we notice that observations for the years 2016 and 2017 were dropped because the dependent variable takes a value of zero for all of them). This result is confirmed even after controlling for both the age of the director when he was first appointed and whether the bank is a popular one. Hence, we do not find evidence of a positive trend in the

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presence of male academics in bank boards after 2012 and we can confirm the results from Table 5.

## 5. Conclusions

Who are the women in boardrooms? Many research papers have investigated whether the presence of female directors affects corporate performance, risk monitoring, conduct risk and corporate social responsibility. On the basis of a growing consensus on the positive contribution of gender diversity to companies' health, some countries adopted regulations positively imposing a minimum quota of the least represented gender in the governing bodies, and other countries sponsored female presence through softer actions and moral suasion. In June 2022, the Council and the European Parliament reached a deal on a new law promoting a more balanced representation of men and women in the boards of listed companies. The quota of the under-represented gender shall reach 40% of non-executive positions by 2026.

Even though the topic of fostering the role of women in corporate governance is high in the political agenda, limited research has been undertaken to understand the features and roles of the women who eventually climb up to the boardroom. Our paper contributes to filling this gap. We specifically focus on the presence of academic directors and the impact of minimum quota regulations on the appointment of university professors of the least represented gender.

Our analysis — applied to the Italian banking sector — confirms a sharp increase in the probability of selecting a female professor as director in the years immediately following the entry into force of the minimum gender quota regulation, the so-called Golfo-Mosca Law. As a counterfactual, we do not find any increase in the probability of appointing a male professor in the same period, and this finding allows us to exclude the impact of other potential factors.

Is the increase of academic female directors good news or bad news? Evidence from past research indicates that the presence of university professors in the board gives a positive contribution to performance and risk monitoring, due to their knowledge, reputation and networking capacity. However, the “segregation” of women into independent and outsider roles may not be fully in line with the empowerment objectives pursued by the legislator. Moreover, the need for companies to turn massively to academia, when constrained to select a woman for the board, may indicate a lack of candidates with the appropriate levels of skills and seniority at the top managerial levels, due to the glass ceiling phenomenon.

In order to overcome these potential issues, minimum quota regulations should favor the presence of women in various roles inside the board of directors, including the presidency of subcommittees and the chairmanship, in order to better foster diversity in the decision-making processes of the governing body. Moreover, the imposition of minimum quota rules applied to the board of directors should come along with integrative measures that may facilitate the access of women to top managerial and C-level positions, avoiding bottlenecks and supply constraints of the

female candidates with suitable levels of skills and seniority. These integrative measures should insist on equal opportunities in career development, training and job rotation, along with a better gender balance in succession planning for top managerial positions.

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