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# Does a "soft" board gender quotas policy work?

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#### Abstract

**Purpose** – The purpose of this paper is to analyze the functioning of a non-sanction "soft" gender quota policy structure (a simple recommendation), using the case of Spain. In the first part of the paper, the authors have reported the dismal improvement regarding the increase of female percentage presence in the companies' boards of members.

**Design/methodology/approach** – The authors provide a detailed sectorial analysis and a classification of board members by type (executive, proprietary, independent and other external). In the second part, the authors exploit the fact that since 2013, the stock-listed companies are legally obliged to respond to a series of questions on gender diversity issues in their annual reports. Using this requirement, the authors perform an analysis using text processing techniques. The authors find that "self-plagiarism" is common in the responses – i.e. they copy responses from previous years – as well as "plagiarism" – i.e. they copy responses from other companies in previous years.

**Findings** – The insufficient progress in respect to the goals of the Law of Equality of 2007 (enacted by Spanish authorities) and the lack of interest that can be inferred from the companies' responses included in their annual reports lead the authors to consider the necessity of changing the law on the corporate policies gender quotas in Spain.

Originality/value – It is the first study that realizes this type of analysis for Spain.

Keywords Gender, Board of directors, Empowerment, Quotas

Paper type Research paper

#### 1. Introduction

The under-representation of women in the leadership positions of companies is well known and has been widely documented by the literature. "Glass ceilings" are generalized in practically all the areas of different professional dimensions and organizations, both public and private (a summary for the case of Spain can be found in Conde–Ruiz and Marra de Artinano, 2016). The data seem to exhibit restrictions and/or invisible barriers that hinder the promotion of women within organizations. Adding to this, even though women are a



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majority among graduates in developed countries and despite the significant increase in their labor participation shares, their activity in positions with high responsibility are significantly lower than their male counterparts.

In addition to these considerations, the fact is that women represent 50 per cent of the population and, at least in developed countries, they achieve a similar level of education, and in many cases superior to men in their generation. Therefore, it seems necessary to not only increase women's labor participation, but also to support their candidacy to leadership positions similar to those of men. A greater participation of women in leadership positions would not only be relevant for organizations and management of companies in general. It also has the potential to become an effective way to break social stereotypes, which are known for building real barriers in the intellectual development of young girls.

In the European Union, the issue of women presence in boards of directors has been playing a key role in the political agenda since 2010. In fact, in that year, the European Commission adopted the "strategy for equality between women and men 2010-2015." One of its key actions was to monitor and stimulate progress towards the aim of 40 per cent of women presence in committees and expert groups established by the Commission (European Commission, 2011). In November 2012, the Commission took another step forward when it proposed a directive establishing a minimum objective of 40 per cent presence of the least represented non-executive member in the board of directors of stock-listed companies in Europe by 2020.

Gender quota policies and the measures of positive discrimination have been proposed as plausible tools able to accelerate the process toward equality of opportunities and to promote the empowerment of women. Two different gender quota policies have been implemented in Europe: binding legislative measures (quotas with sanctions) and nonbinding legislative measures (quotas with no sanctions or simply recommendations). Norway was a pioneer in the introduction of mandatory gender quotas in the boards of directors in 2005. In 2008, Norway obliged stock-listed companies to reserve at least 40 per cent of the spots in the board of directors for women under penalty of dissolution. During the five following years, more than a dozen countries within which we can find including Belgium, France or Italy, established similar quota systems between 30 and 40 per cent. In this regard, the case of Spain is especially interesting. Spain opted to introduce a nonenforceable policy of quotas (i.e. "soft" quota policy). Concretely, in 2007, the Law for the Equality of Men and Women was approved in Spain[1], and it merely issued a recommendation to increase women presence in the companies' boards of directors.

Within this context, the main goal of this article is to analyze the functioning of a "soft" quotas policy with no sanctions or with simple recommendations, using the case of Spain. There are many articles studying the introduction of the mandatory quota policy for the case of Norway (Engelstad and Teigen, 2012; Huse and Seierstad, 2013; Bertrand *et al.*, 2014; Eckbo *et al.*, 2016; Ahern and Dittmar, 2012) or for the case of Italy (Ferrari *et al.*, 2016). But, this paper represents the first analysis of the impact of a non-mandatory quota policy. For this purpose, we are going to study how the gender diversity in the boards of directors of the Spanish stock-listed companies has evolved after the introduction of the aforementioned 2007 Law of Equality. We have manually and through automatic procedures (Web scraping) gathered information of all the members of the boards of directors of the stock-listed companies in Spain in the timeframe between 2013 and 2017[2].

In this article, we also explore useful information that companies must complete in their annual reports. In these reports, they must justify the measures that they have undertaken to improve diversity in their boards. With a text treatment analysis, we could quantify the extent to which such responses are similar to the ones presented by the same company in the previous year (percentage of "self-plagiarism") or to the ones presented by other companies

in the previous year (percentage of "plagiarism"). The idea is to use these quantitative measures obtained through the techniques of text treatment as a sign of the interest that companies show for gender diversity. We find a very high percentage of "plagiarism" and "self-plagiarism," and precisely those companies with a higher indicator in such variables show a lower percentage of women in their boards of directors.

This is the first article that analyzes how women managers have progressed since the introduction of the Equality Act in Spain and how companies have collaborated to achieve the proposed objectives. Mateos de Cabo *et al.* (2019), in a companion study, focus on one aspect of the Act that is interesting: it offers an incentive to companies that meet the percentage of women in councils in the sense that they can receive a preference in the public tendering of contracts. Mateos de Cabo *et al.* (2019) find that companies that rely on public contracts have a significantly higher probability of increasing women in their councils.

This article is organized in the following way. Section 2 is devoted to the business quota policy in Europe and the related literature. In Section 3, we analyze how the general situation of the boards of directors of stock-listed companies has evolved in the timeframe between 2013 and 2017. In Section 4, we study the diversity in the board of directors of Spanish stock-listed companies, putting special attention at the type of board members, as well as a sector analysis. In Section 4, we analyze the different ways stock-listed companies justify their situation of gender diversity in their boards of directors to the CNMV. Finally, Section 5 concludes this work and provides a path to further research.

# 2. Business quota policy in Europe and related literature

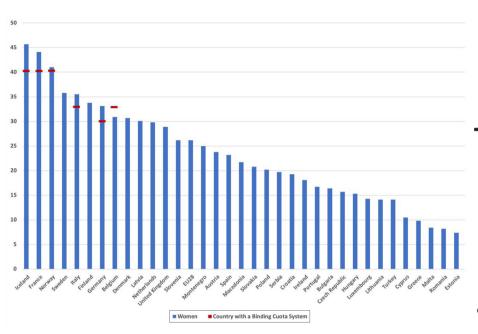
Given the fact that women are severely under-represented in high-responsibility and leadership positions, institutional and governmental agents' actions indicate the willingness to accelerate the process of gender convergence into a situation of greater equality of opportunity. Since the beginning of the twenty-first century, a number of European countries have adopted certain, somewhat strict, regulatory measures directed at the betterment of gender diversity in the boards of directors of listed companies. Norway (pioneer) introduced a 40 per cent legally binding quota system in 2005, which came into force in 2008. Iceland followed Norway's steps and introduced the same 40 per cent quota system in 2013. Currently, there are four other European countries with legally binding quota systems:

- (1) Italy has a 33 per cent quota system since 2015;
- (2) Germany has a 30 per cent quota system since 2016;
- (3) France has a 40 per cent quota system since 2017; and
- (4) Belgium has a 33 per cent quota system since 2018.

Adding to this, other countries such as Spain or The Netherlands have opted for "soft" quota law measures in the form of non-legally binding and non-enforceable quota systems recommendations.

There is a vast literature on the effects of gender quotas in the context of business and/or politics, (Profeta *et al.* (2014) and Pande and Ford (2011) for reviews). Even though gender quotas are a controversial policy, there is no doubt about its effectiveness as a mechanism to equalize opportunity where women have systematic barriers due to discrimination or persistent stereotypes (Holzer and Neumark, 2006).

In Figure 1, we can observe the fact that those countries with legally binding quota systems have a greater proportion of women in the boards of directors than those countries unable to provide legally binding and enforceable measures. Those unwilling to introduce



Soft board gender

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Figure 1.
Representation of women and men in the boards of directors of big stocklisted companies: 2018

Source: European Institute for Gender Equality (EIGE)

gender-based quota systems have based their main argumentations in two main risks. On the one hand, they have argued that the relatively lower professional managerial experience of women in comparison to men could hinder the profitability of enterprises in the case they are forced to hire more women for their workforce staff. On the other hand, they argued that given the limited number of women with the capacity to be a member of a board of directors, quota systems could generate a "golden skirt" phenomenon, where a tiny group of privileged women would gather all the positions in different boards of directors. Nevertheless, reality has dismissed these thoughts.

First, there is an ample literature focused on the impact of female representation in the boards of directors, and the truth is that the results are not as negative as the detractors of the quotas anticipated. More concretely, Pletzer *et al.* (2015) drew a meta-analysis with 20 articles published in refereed academic journals and did not find a significantly negative relationship between the percentage of women in the boards of directors and the financial performance of companies. Post and Byron (2014) drew a meta-analysis with 140 academic articles published and found that the representation of women is positively related to the accounting performance, and this relationship is more positive in countries with higher protections for the shareholders. They also found that even though the relationship between female representation and the performance of the market is close to zero, the relationship is positive in countries with higher gender equality (and negative in countries with lower gender equality).

The greater understanding we have of the effects of mandatory gender quotas on the economy is based on the pioneering experience of Norway and Italy. The Norwegian law obliging companies to reach minimum of 40 per cent of female presence in companies listed on the stock market imposed a dramatic and rapid transformation of the composition of

boards of directors (Engelstad and Teigen, 2012; Huse and Seierstad, 2013). Research has shown that the Norwegian law has been effective in increasing the number of women in top positions, but has not been able to reduce gender gaps in general (Bertrand *et al.*, 2014). In addition, Ahern and Dittmar (2012) found that the increase in the number of women on boards of directors in Norway imposed a significant cost on the value of companies and the benefits of the stock market. However, a "responding" paper, by Eckbo *et al.* (2016), discusses the validity of the result in Ahern and Dittmar (2012) and shows that the negative effects are practically negligible.

The Italian Law 120/2011 imposes a legally binding gender quota system in all the boards of directors of the stock-listed companies and the public ones. Thanks to this law, the presence of female board members has gone from 6 to 34 per cent. There is no doubt that this law has represented a revolution in the Italian companies and has established the presence of women in leading positions. A very important fact is that the Italian quota system is temporary and only lasts up to three renovations of the boards of directors. This characteristic makes sense if we think that quota systems are necessary to break an equilibrium, where the power is concentrated in the hands of men. Once achieved the other equilibrium, with a more egalitarian distribution of power and equality of opportunities for women, the quota system will no longer be needed. Another important characteristic is that the imposition of the quota system is gradual, it began with an initial percentage of 20 per cent for the first renovation and of 33 per cent for the next two. Lastly, having this legally binding quota system or the imposition of sanctions for the companies that do not follow, it is key for its full compliance.

Ferrari et al. (2016) have demonstrated that the Italian law has not only allowed for the presence of female board members to increase, but it has also improved the governance of companies. The board members, male and female, of the companies that have renovated their own boards of directors after the introduction of the law are more qualified and vounger than the ones that were before the introduction of the reform. The presence of quota systems has facilitated the increase of the level of studies of men in the new boards of directors. This is logical, given that with a quota system the companies must reconsider with much more detail who they place in the leading positions; given that certain men have to stay outside, there are great incentives for outsiders to be those who have less talent among the contenders in the same way that there are great incentives to select women with better talents. The quality of the boards of directors can improve under a quota system. Cuberes and Teignier (2016) emphasize the same argument. They demonstrate that in a context of gender discrimination against women, if men and women have the same business talent, putting barriers for women makes men with less talent manage a company less efficiently. Finally, Besley et al. (2017) evaluate the impact of the quota system introduced in the political system by the social-democrat party in Sweden in 1993. Concretely, the quota system really increased the competence of politicians, as these provoked the displacement of mediocre men, both as candidates and leaders. This quota system was colloquially known as the "Crisis of the mediocre man" when the political system debated the law, given that the incompetent men had to fear from the inflow of women in politics. Currently, more than 100 countries have a gender quota system (see www.quotaproject.org) somehow in their political system, and indeed, the increase of women in politics would be difficult to explain without quotas.

Second, the previously mentioned phenomenon of women in more than one board of directors in countries with quotas has also been analyzed in the literature. According to the data, this phenomenon known as "golden skirts" does not seem to really exist, given that the percentage of women in more than one board of directors is similar to that of men. This is what

Ferrari et al. (2016) found in an analysis where they studied the policy of quota systems in Italy. Furthermore, a recent article published in *The Economist* said that ISS Analytics (a consulting company) found that the 19 per cent of female board members of European companies STOXX 600 – which is mainly present in markets with quota systems – were in at least three boards of directors. This is a very similar amount to the number of male board members in the same group of companies, which are a 15 per cent[3].

Furthermore, it is important to highlight that quota systems not only improve justice as they allow women to occupy the roles that would correspond to them through meritocracy, but they can also have important effects from the point of view of efficiency. Quota systems can bring higher efficiency levels if, in a context of discrimination (even if statistically), they break the persistent advantage of the dominant group, which has higher presentation in the selection committee. We cannot forget that there is a tendency in people to prefer those who look like them ("homophily"), as this allows them to evaluate better their personal and non-personal characteristics. Consequently, this leads male referees to prefer male candidates, even without being fully conscious about it. This way, as Conde–Ruiz *et al.* (2017) show, a system of quotas increases the probability of a woman being promoted and allows and incentives (only with its implementation) a higher number of talented women to enter and compete in a highly competitive job market.

In 2007, the Law for the Equality of Men and Women was approved in Spain. The objective of this law was to make effective the equality of opportunities between women and men and eliminate any form of gender discrimination. The law marked as an objective a balanced participation (minimum 40 per cent – maximum 60 per cent) of men and women in electoral lists, in all the areas of the public administration and in the boards of directors of companies. More concretely, Article 75 of this law establishes that "companies obliged to submit a nonabbreviated profit and loss account shall endeavor to include in their board of directors a number of women that allows a balanced presence of women and men to be reached within eight years of the entry into force of this Law". Later, in 2015, the Unified Code of Good Governance of the CNMV established in its Recommendation 14 the commitment to reach 30 per cent of female board members by 2020, and that the board of directors approve a policy for the selection of board members that, among other things, promotes gender diversity. The main characteristic of Spanish law, in comparison with other countries, is that it is a simple recommendation, with no sanction in case of non-compliance. Therefore, as already mentioned. the aim of this article is to analyze how this law is working in the progression of women in the boards of directors of Spanish listed companies. To proceed with this objective, we will not only analyze the evolution of IBEX companies, or the large Spanish corporations, exposed to the media and public debate and scrutiny, but we will also delve our analysis into the rest of the stock-listed companies. We will also pay special attention to the evolution of different types of board members: proprietary, independent, executive and other external directors.

# 3. General situation of the boards of directors of Spanish stock-listed companies

As a preliminary step to the analysis of gender diversity, this section analyzes how the number and composition of the boards of directors of stock-listed companies in Spain has evolved in the 2013-2017 period. In 2015, the Board of the CNMV approved a Good Governance Code for stock-listed companies, prepared with the support and advice of an Expert Commission, with the objective of: "ensuring the proper functioning of the governing bodies and administration of Spanish companies to lead them to the highest levels of competitiveness; to generate trust and transparency for national and foreign shareholders and investors; to improve the internal control and corporate responsibility of Spanish

companies, and to ensure the proper segregation of duties and responsibilities in companies, from a perspective of maximum professionalism and rigor". This code introduces recommendations regarding the size and composition of the boards of directors. In particular, its thirteenth recommendation establishes that the board of directors should have the precise dimension to achieve an efficient and participative functioning, which makes it advisable to have between 5 and 15 members. As can be seen in Table I, the distribution of the number of members has not changed significantly either. In 2013, 14 per cent of companies had five members, 48 per cent between five and ten, and 28 per cent between 10 and 15 and 10 per cent more than 15. In 2017, the percentages are very similar to those of earlier years, with the exception that the boards of directors of more than 15 members have been reduced, probably following the recommendation of the CNMV. The differences are more significant when we compare IBEX companies with non-IBEX companies. In the former, the most numerous boards of directors have between 10 and 15 members, while in the latter, the predominant Boards have between five and ten members.

The boards of directors are composed by executive directors and non-executive directors. Executive director is the member who, in addition to his duties as a director, intervenes in the daily activity of the company performing senior management tasks, or is employed by the company or their group. Non-executive director is a member of the board of directors who does not intervene in the daily management of the company and may be proprietary, independent or other external. Proprietary board member is the one who forms part of the board of directors due to his/her status as a shareholder of the company. Independent director is a member of the board of directors who does not represent the groups of shareholders that control and dominate a company or the management team of the entity. They must defend the interests of all the shareholders, especially minority shareholders and small shareholders who do not have direct representation on the board. Finally, the other external director is the one who is part of the board and cannot be framed in any category previously mentioned. That is, he or she does not exercise executive functions (executive director), does not represent any significant shareholding (proprietary director) and his/her conditions or personal or professional ties do not allow it to be integrated as an independent director.

	2013	2014	2015	2016	2017
All the companies					
5 or less (%)	14	17	13	14	12
5 to 10 (%)	48	46	48	43	46
10 to 15 (%)	28	30	34	36	37
More than 15 (%)	10	7	5	6	5
IBEX					
5 or less (%)	0	0	0	0	0
5 to 10 (%)	17	23	12	18	21
10 to 15 (%)	54	57	71	65	65
More than 15 (%)	29	20	18	18	15
Non-IBEX					
5 or less (%)	18	23	18	19	15
5 to 10 (%)	58	53	59	51	55
10 to 15 (%)	19	20	22	27	28
More than 15 (%)	5	4	1	3	2

**Table I.**Distribution of the number of board members

In this regard, the Good Governance Code establishes that the number of executive directors needs to be the minimum necessary (fifteenth recommendation), and that the number of independent directors represents at least half of the total number of board members (sixteenth recommendation). The purpose of these recommendations is to ensure that the independents can act as guarantors in the face of possible agency conflicts between directors and shareholders and between shareholders represented and not represented on the board. As can be seen in Table II, the composition of the boards has followed more or less these recommendations by increasing the percentage of independent directors and reducing those of the other two types. In addition, the main changes of the past few years englobe a mild reduction of executive members and a substitution of proprietary members for independents. The main difference between IBEX companies and the rest is that in the latter companies, the "weight" of proprietary members, as a result of the reduction of independent members, is higher than in the former companies.

It is important to point out that the IBEX companies (see Table II) comply with the recommendation of the CNMV Good Governance Code, as on an average, at least half of its board members are independent. However, the rest of the companies are still far (mean distance of 41 per cent) from complying with this recommendation.

# 4. Gender diversity in the boards of directors

Spain is traditionally below the average (in harmonized statistics) in women representation in the boards of directors in comparison with the rest of the EU considering only large stocklisted companies (See Figure A1 in the Appendix).

In Table III, we can see the evolution over time of the percentage of female board members in the total number of companies, IBEX companies and non-IBEX companies. As shown, the IBEX companies have made a greater effort to incorporate women in their boards than non-IBEX. This is probably due to the already mentioned relatively higher exposure to the media and public debate/scrutiny, IBEX companies have increased the percentage of female board members by 8 points in comparison to the 5 points increase that the other stock-listed companies have achieved. Overall, the percentage of female board

	2013	2014	2015	2016	2017	
All the companies Executive (%) Proprietary (%) Independent (%)	19 41 35	18 38 37	17 36 40	16 34 42	16 32 43	
Other external (%)	6	6	7	8	8	
IBEX Executive (%) Proprietary (%) Independent (%) Other external (%)	17 32 46 5	17 30 47 6	16 29 48 7	16 24 52 9	16 23 52 8	
Non-IBEX Executive (%) Proprietary (%) Independent (%) Other external (%)	19 44 31 6	18 41 34 6	18 38 37 7	16 37 39 7	17 35 41 8	Table II. Average composition of the boards by the type of board
Source: Own elaboration	n using data from	CNMV				member

AEA 28,82		Executive (%)	Proprietary (%)	Independent (%)	Other (%)
,	TOTAL				
	2013	4.9	11.5	17.6	8.1
	2014	4.8	12.7	18.8	12,2
	2015	4.8	13.7	21.4	11.0
<b>-</b> 4	2016	4.5	12.6	24.0	11.5
54	2017	4.6	15.1	26.5	12.4
	IBEX				
	2013	3.7	10.4	25.5	4.2
	2014	2.5	11.7	25.6	13.3
	2015	2.7	15.3	27.4	12.5
	2016	2.8	11.1	30.4	13.2
	2017	4.3	19.8	33.2	11.1
	Non-IBEX				
	2013	5.5	11.9	11.3	10.0
	2014	6.0	13.1	13.8	11.5
Table III.	2015	5.8	13.1	17.7	10.2
	2016	5.3	13.0	19.8	10.6
Female proportion by the type of board	2017	4.7	13.6	22.3	13.0
member	Source: Ov	wn elaboration using dat	a from CNMV		

members for the total number of listed companies is 18 per cent, being 24 per cent for IBEX companies and 15 per cent for non-IBEX companies.

Table IV shows the distribution of companies by the number of female board members. In 2017, there are still 18 per cent of companies that do not have a female director. This

		0	1	2	3	4	5	6	7
	All the compa	ınies							
	2013 (%)	32.1	34.3	19.3	8.6	4.3	1.4	0.0	0.0
	2014 (%)	30.7	30.7	24.3	8.6	2.9	2.9	0.0	0.0
	2015 (%)	23.9	35.9	18.3	14.8	5.6	1.4	0.0	0.0
	2016 (%)	22.0	33.3	22.7	13.5	5.7	2.1	0.7	0.0
	2017 (%)	18.1	32.6	21.7	14.5	8.7	2.2	2.2	0.0
	$I\!B\!E\!X$								
	2013 (%)	11.4	20.0	28.6	22.9	14.3	2.9	0.0	0.0
	2014 (%)	8.6	28.6	22.9	22.9	8.6	8.6	0.0	0.0
	2015 (%)	2.9	26.5	17.6	29.4	17.6	5.9	0.0	0.0
	2016 (%)	2.9	23.5	23.5	26.5	11.8	8.8	2.9	0.0
	2017 (%)	0.0	14.7	23.5	29.4	17.6	5.9	8.8	0.0
	Non-IBEX								
Table IV.	2013 (%)	39.0	39.0	16.2	3.8	1.0	1.0	0.0	0.0
Distribution of	2014 (%)	38.1	31.4	24.8	3.8	1.0	1.0	0.0	0.0
	2015 (%)	30.6	38.9	18.5	10.2	1.9	0.0	0.0	0.0
companies by	2016 (%)	28.0	36.4	22.4	9.3	3.7	0.0	0.0	0.0
number of female	2017 (%)	24.0	38.5	21.2	9.6	5.8	1.0	0.0	0.0
board members: 2013-2017	Source: Ow	n elaboration	using data f	rom CNMV					

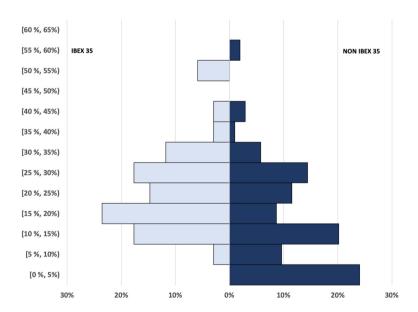
number gets reduced to 0 per cent of the companies when we focus on the IBEX companies, but it reaches 24 per cent of the companies when we look at the non-IBEX companies. Another important fact to highlight is that 72 per cent of all stock-listed companies have two or fewer female directors. The number is 84 per cent when we analyze non-IBEX companies and 38 per cent when we look at the IBEX companies.

In other words, although the average in the percentage of female board members of all companies increases, the previous data seem to indicate that there is a great dispersion. Figure 2 shows the distribution of the percentages of female board members for the year 2017. Very few companies reach 30 per cent. Specifically, only 12 per cent of the companies that do not belong to the IBEX and 24 per cent of the IBEX companies have more than 30 per cent of female board member. As it could already be anticipated, the situation is much worse in non-IBEX companies, wherein 26 per cent of them there are less than 10 per cent of women in their boards in comparison to the 3 per cent in the IBEX companies.

# 4.1 Diversity by the type of board member

In this section, we will analyze the boards of directors according to the type of board member: internal (executive) and external (proprietary, independent and other).

Tables III and V show several interesting facts. In the first place, the percentage of women executive advisors; as a reminder, these board members are those who have more power within the board; is extremely small, as it only represents 4.6 per cent of the total. And, what is even more striking is that this percentage has fallen slightly since 2013. There were 12 executive advisors in 2013 and now there are ten (three in the IBEX companies and seven in the non-IBEX companies). Furthermore, even though proprietary directors have increased slightly from 11.5 to 15.1 per cent, they are below the average of total directors. The female board members who have increased the most are the independents, who have



**Source:** Own elaboration using data from CNMV

Figure 2.
Distribution of companies by percentage of female board members (2017): IBEX vs non-IBEX

AEA 28,82		Executive	Proprietary	Independent	Other external
20,02	All the comp	banies			
	2013	12	68	86	6
	2014	11	68	94	10
	2015	11	70	117	10
=0	2016	10	61	138	12
56	2017	10	69	154	13
	IBEX				
	2013	3	17	55	1
	2014	2	17	54	4
	2015	2	21	58	4
	2016	2	12	69	5
	2017	3	21	75	4
	Non-IBEX				
	2013	9	51	31	5
Table V.	2014	9	51	40	6
	2015	9	49	59	6
Number of female	2016	8	49	69	7
board members by the type of board	2017	7	48	79	9
member: 2013-2017	Source: Ov	wn elaboration using da	ata from CNMV		

gone from 17.6 to 26.5 per cent for the total. This rise from 25.5 to 33.2 per cent is for IBEX companies, whereas from 11.3 to 22.3 per cent is related with non-IBEX companies.

# 4.2 Diversity by the sector of activity

Finally, it is interesting to analyze gender diversity in the boards of directors by sector of activity of each company. If we focus on how much the incorporation of women in the boards of directors has evolved, we can say that it has done so in a similar way in all sectors. Figure 3 shows how all sectors have augmented the presence of women more or less in the

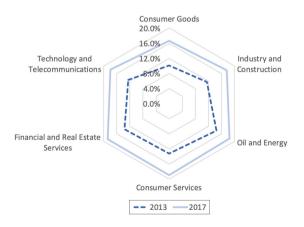


Figure 3.
Distribution of the female board members presence by sectors: 2013 vs 2017

Source: Own elaboration using data from CNMV

same proportion, and we can see that the section of consumer goods has slightly improved over the other sectors, even if it began from a worse situation than other sectors.

Furthermore, as Figure 3 shows, the presence of women in the boards of directors is symmetric by sector at an aggregate level. Therefore, in 2017, for example, the smallest percentage of women is found in the sector of consumer goods with a 16.7 per cent, and the one that has higher representation is the financial and real estate services with an 18.9 per cent. Finally, it is interesting to point out that the increase in the quantity of women has happened thanks to the increase of quantity of independent female board members.

# 5. Companies reaction to the little progress: a text processing analysis

From the 1,363 board members of stock-listed companies in 2017, the percentage of women was an 18 per cent. Only 14.5 per cent of companies (20 companies) reach a representation of 30 per cent. Indeed, even if the threshold of 30 per cent is reached now by 24 per cent of IBEX companies, only 12 per cent of non-IBEX companies reach it.

Following the Gender Equality Act 3/2007 (Article 75), in 2015, the Code of Corporate Governance of the CNMV established its fourteenth recommendation to reach a 30 per cent of female board members in 2020, and that the board of directors should approve a policy of selection of directors that, among other things, should favor gender diversity. The Order ECC/461/2013[4], from March 20, through which the content and structure of the annual report for corporate governance were determined, the annual report on remuneration and other instruments of information of the anonymous stock-listed societies established that companies will have to respond to a series of questions to explain the small representation of women in boards. The questions in relation to gender diversity that they must answer in the annual reports are various, but we will focus on the following question:

**"C.1.5.** Explain the measures that, in your case, would have been adapted seeking to include a number of women in the board of directors that allows to reach a balanced representation of men and women".

The objective of this section is using the answer to the previous question (C.1.5), reported by the companies, as an indicator of the interest that companies show toward gender diversity. In particular, we are going to focus on two indicators: the number of words used and the percentage of companies that repeat the same answer year by year.

Figure 4 shows how companies have doubled, generally, the quantity of words that they use to justify the lack of presence of women in the boards of directors in a period of four years. It is clear that the IBEX companies generally use a higher number of words than other companies; this might be because they have to face a higher reputational cost if they show little interest in gender issues, or on the other hand, it might be because of the higher quantity of resources that they possess, given that they are bigger companies. In any case, it is important to analyze the quality of responses. To measure the quality, we constructed an indicator that analyzes the similarities between the responses within the companies and between companies.

In the first place, we will compare how they have responded to question C.1.5. in one year with respect to the previous year. In other words, the objective is to detect "self-plagiarism" or the percentage of similarities, as we believe that giving the same answer over years might be a sign of lack of interest when completing the questionnaire within the annual report that must be sent to the CNMV. To do so, we will compare the excuse in year t with the excuse in year t-1 searching the subsets of more than five words coinciding in both years. The result is obtained summing the five bigger subsets obtained and dividing them between the length of the text in t, obtaining this way a relative measurement of the similarity between the excuses provided in each year in respect to the previous one. The results are in Table VI.

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Figure 4. Evolution of interest to justify the absence of women. Number of words used in question C.1.5



Source: Own elaboration using data from CNMV

	2014-2013	2015-2014	2016-2015	2017-2016	Media 2013-2017
All the comp	anies				
Average	75.71	56.11	74.44	72.05	74.08
Q1 (%)	62.47	20.32	53.61	51.08	60.08
Q2 (%)	99.13	60.40	88.45	89.48	74.49
Q3 (%)	100.00	99.71	100.00	100.00	92.75
Q4 (%)	100.00	100.00	100.00	100.00	100.00
IBEX					
Average	64.64	54.20	71.16	58.54	62.19
Q1 (%)	37.70	22.26	51.58	32.31	49.89
Q2 (%)	75.06	53.06	82.18	63.07	62.31
Q3 (%)	100.00	91.17	97.52	83.53	70.76
Q4 (%)	100.00	100.00	100.00	100.00	91.53
Non-IBEX					
Average	79.09	56.71	75.53	76.79	77.54
Q1 (%)	75.50	8.99	55.29	56.72	62.09
Q2 (%)	99.79	64.00	92.75	97.16	77.52
Q3 (%)	100.00	100.00	100.00	100.00	97.84
Q4 (%)	100.00	100.00	100.00	100.00	100.00

**Table VI.** "Self-plagiarism" in the response to question C.1.5 with respect to the previous year

The data are surprising, and for example, in the year 2017, 50 per cent of the companies (see the mean Q2 in the table) had replied to question C.1.5., copying at least 74.4 per cent of the text that they had used in the previous year. This percentage is practically a 77 per cent for non-IBEX companies (50 per cent replied exactly the same in spite of the slight progress) and 62 per cent for IBEX companies. Percentages are lower for the year 2015, but that year, two more questions

were added to the annual reports, which made companies adapt their texts.

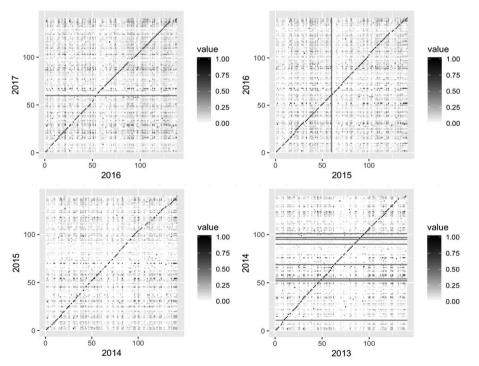
Once we have demonstrated the high percentage of "self-plagiarism" or the percentage of similarity in the responses, we will draw a similar analysis comparing the responses from a

year with those from the previous year done by the other companies. We will focus on the year 2017 and will see how much companies have plagiarized with respect to the responses sent in 2016. As the annual reports are public, it seems easy to "plagiarize" the way other companies respond. In Figure 5, we can see a heatmap that represents the percentage of "plagiarism" of each company with respect to the other companies. The diagonal line (shown by a red line) represents a company in t with its response in t-1, which, as we saw above, is very similar.

As we can see in Figure 5, we have a great quantity of red tonalities, which indicate the high degree of similarity in the responses between the different companies in one year in respect to the previous year. If instead of considering the degree of similarity with respect to the rest of companies we do it only with the company with which the degree of similarity is the maximum, we obtain the following results.

In other words, if we analyze the "maximum plagiarism" that each company has with respect to the others in the previous year (see Table VII), we can see how 50 per cent of companies (i.e.: Q2) have copied at least a 38 per cent of their response from another company. This number is very high, and as we have seen in the previous heatmaps (Figure 5), each company has the percentage of similarity not with a single company, but with several, and it would, therefore, be logical to think that companies are "plagiarizing" their responses using the text of more than one company.

The high percentage of "self-plagiarism" and "plagiarism" or the percentage of similarity with their own responses or with the responses from other companies when replying to



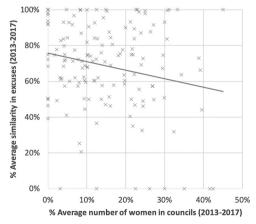
Source: Own elaboration using data from CNMV

Figure 5. Heatmap analyzing the degree of similarity in the responses of each company in t with respect to the responses in t-1

AEA 28,82		2014-2013	2015-2014	2016-2015	2017-2016	Media 2013-2017
,	All the compo	anies				
	Average	39.77	39.28	43.57	42.80	41.54
	Q1 (%)	12.25	21.79	19.34	27.49	24.68
	Q2 (%)	39.29	36.59	43.65	42.26	38.09
CO	Q3 (%)	61.95	53.41	60.71	60.52	56.68
60	Q4 (%)	100.00	100.00	99.74	100.00	100.00
	IBEX					
	Average	42.69	42.46	47.96	46.20	46.03
	Q1 (%)	21.01	26.63	34.47	30.43	28.20
	Q2 (%)	40.18	41.92	46.11	44.55	43.70
T 11 VII	Q3 (%)	62.76	56.59	61.41	61.16	57.77
Table VII.	Q4 (%)	91.51	81.11	99.67	82.64	99.67
Maximum level of	Non-IBEX					
similarity	Average	38.90	38.28	42.11	41.69	40.05
"plagiarism" in the	Q1 (%)	9.22	16.90	16.41	21.91	18.04
response to question	Q2 (%)	38.33	34.13	41.18	41.90	36.98
C.1.5 with respect to	Q3 (%)	60.66	53.20	60.08	59.70	54.57
the response of	Q4 (%)	100.00	100.00	99.74	100.00	99.87
another company in	Q 1 (70)	100.00	100.00	00.14	100.00	33.01
the previous year	Source: Ow	n elaboration using	g data from CNMV	•		

question C.1.5, which is where they have to explain the measures that they have adopted to reach a balanced presence of men and women, is a unequivocal sign of the lack of interest that companies show for this issue.

Another remarkable fact is that, as we can see in Figure 6, the companies that have a higher percentage of women in their boards of directors are precisely the ones that have a lesser degree of "self-plagiarism" (measured as the mean of percentages of "self-plagiarism" over four years)[5]. Even though we cannot demonstrate the causality, we can still infer



**Source:** Own elaboration using data from CNMV

Figure 6.
Relation between the average percentage of "self-plagiarism" and the average percentage of female board members

several interpretations from this correlation. On one hand, that the companies that implement a higher number of new measures and, therefore, introduce greater innovations in their responses are precisely the ones that achieve a higher female representation in their boards of directors. On the other hand, that the companies that should implement more measures due to the low female representation are the ones that do not do much and basically copy the same response year after year.

Despite the little progress in the percentage of female board members, and the signs that we have seen of the lack of interest shown while finding a justification or an excuse, when we analyze what have been the measures to achieve a balanced presence of men and women in the boards of directors, we remain surprised once again. In the year 2017, despite the little progress, only 37 companies had undertaken new concrete measures to try to reduce the gap, only a 26 per cent. It is interesting to point out that that 33 of the 37 companies that have implemented something is the implementation of a director selection policy (i.e. "política de selección de consejeros") to resolve the problem[6]. Precisely, the abovementioned Code of Corporate Governance of the CNMV establishes in its Recommendation 14 that the board of directors should approve a director selection policy that; is concrete and verifiable; assures that the appointment or reelection proposals are based in a previous analysis of the board of directors' necessities; and that favors the diversity of knowledge, experience and gender. It is surprising to see that only 33 companies have followed this recommendation despite not following the recommendations on gender diversity in their boards of directors, and in light of the results, it seems like such policy is not verifiable by the authority.

#### 6. Conclusions

In this paper, we have seen that the results of a "soft" *quota law* such as the Spanish one, with a simple recommendation with no sanctions, are much limited that the ones achieved in countries with a legally binding quota system. In the period between 2013 and 2017, Spain has gone from having 11.6 per cent of women in the boards of directors of the Spanish stock-listed companies to having a 17.2 per cent. This is an annual average growth of 10 per cent or an increase of 1.4 percentage points. This growth has been higher in the large corporations (or IBEX companies) (11 per cent of annual growth and 1.8 percentage points) than the non-IBEX companies (10 per cent or 1.2 percentage points of the annual growth).

We also did a sectorial analysis and a division of types of board members (executive, proprietary, independent and other external). On the one hand, at the sectorial level, we do not find significant differences, but the regression regarding the percentage of female executive directors is remarkable. The number of women as executive directors in such period has declined. In 2013, there were 12 female executive directors and, now, there are only eight. The decrease of female executive directors is a clear sign that women are not really reaching the high-responsibility and leading positions that correspond.

Should this average growth continued with percentage points of 1.8 for IBEX companies and 1.2 for non-IBEX companies, the former would reach 30 per cent of women directors in 2022 (two years later than the recommendation provided by CNMV), and the later would reach such goal in 2030 (ten years later). To reach the 40 per cent required by the Law of Equality of 2007, it would take much longer: until the year 2027 for IBEX companies and the year 2039 for non-IBEX companies.

How many female directors would be necessary to appoint to reach the 30 per cent threshold the CNMV recommends for 2020, and the 40 per cent the Law of Equality of 2007

dictates? To answer this question, we should take into consideration several factors. First, the specific situation of each company, as the objective is for all companies to comply with this goal, and not only the average companies where, for example, some firms with more female directors would compensate those with less. Second, as companies differ in size, it is important to define the threshold for the different sizes of the enterprises. For example, if we consider the 30 per cent threshold and the board of directors of a specific company is composed of ten members, then there would clearly be three female directors. But, if the board of directors is composed of eight members, the 30 per cent would be 2.4 women, and that could be done by having two women (considered low level) or three women (considered high level). It is for this reason that we will consider two scenarios: the "weak" scenario where the threshold for female board members is determined by the low level and the "strong" scenario where the threshold for female board members is determined by the high level. Clearly, the second scenario is much stricter than the first one, hence naming them "weak" and "strong." Third, let us suppose that men get substituted by women and no new board members are added, it is possible that in certain cases it would be preferable to include new female directors than to substitute the ones existing. Table VIII shows the results of this exercise. To comply with the recommendation of the CNMV and reach the 30 per cent of women in the boards of directors, we would need 126 (in the weak scenario) and 235 (in the strong scenario) new female directors. While to archive the target of the Inequality Act (i.e. 40 per cent), we should need 253 and 352, respectively.

In the second part of this article, taking advantage of the fact that since 2013, the stock-listed companies must respond to a series of questions on gender diversity in their annual reports, we have done an analysis using text processing techniques. We find that self-plagiarism is common in the responses – i.e.: they copy responses from previous years – and plagiarism – i.e.: they copy responses from other companies in previous years. The insufficient progress, not only with respect to the goals of the Law of Equality of 2007 to reach a 40 per cent of female representation, but also with respect to the recommendation of the Codes of Corporate Governance of the CNMV that established the commitment to reach 30 per cent female board members in 2020, and the lack of interest that can be inferred from the responses on this topic that the stock-listed companies have included in their annual reports, all lead us to consider the necessity of changing the law on the corporate policies in Spain.

In conclusion, if we really think that talent is equally distributed between genders and we take into account that women in recent decades have not only advanced in professional

Table VIII.  Number of new female board members to reach the 30 and 40 per cent: "weak" vs "strong"	"Strong" scenario
scenario	Source: Own elabor

	All	IBEX	Non-IBEX
Reach the 30% threshold			
Companies that do NOT reach the 30% threshold new board members	118	26	92
"Weak" scenario	126	24	102
"Strong" scenario	235	46	189
Reach the 40% threshold			
Companies that do NOT reach the 40% threshold new board members	130	31	99
"Weak" scenario	253	66	187
"Strong" scenario	352	87	265

experience, but have also reached educational levels higher on average than men, we see no argument for not introducing a system of compulsory and temporary quotas. The replacement of male board members by female board members should be carried out, once the law enters into force, at the time of renewing the council. With this measure, we will not only be able to speed up the achievement of a balance of equal opportunities between the genders and, in a very short time, to place women in the place that corresponds to them, in "meritocracy" speaking terms. We will also will be able to advance in the fight against the stereotypes that we know constitute a real brake on the confidence and professional development of children. Stereotypes, as Brian, Leslie and Cimpian (2017) show, begin as early as age six. In addition, we know that stereotypes can be behind the low proportion of women in careers called STEM (science, technology, engineering and mathematics) or as shown by Boscá *et al.* (2018), behind the specialization within the careers of economics or business.

#### Notes

- 1. See Conde-Ruiz and Hoya (2015) for further information.
- 2. In the Appendix are the details of the database we have used.
- 3. In the Appendix Figure A2, we can find the distribution of male and female board members in relation to the number of the different boards of directors to which they belong for the case of Spain. As we can see, the distribution in 2017 is practically symmetric, and there are no significant differences between both genders.
- 4. www.boe.es/buscar/pdf/2013/BOE-A-2013-3212-consolidado.pdf
- 5. When we analyze this correlation with the percentage of "plagiarism" instead of "self-plagiarism," we get similar results.
- 6. As a complementary analysis, we have counted the words that appear in the answers of all the companies for the year 2017. As you can see in Table AIII of the Appendix I, the policy of selection of directors is one of the most used.

#### References

- Ahern, K.R. and Dittmar, A.K. (2012), "The changing of the boards: the impact on firm valuation of female board representation", *The Quarterly Journal of Economics*, Vol. 127 No. 1, pp. 137-197.
- Bertrand, M., Black, S.E., Jensen, S. and Lleras-Muney, A. (2014), "Breaking the glass ceiling? The effect of board quotas on female labor market outcomes in Norway", NBER Working Paper No. 20256
- Besley, T., Folke, O., Persson, T. and Rickne, J. (2017), "Gender quotas and the crisis of the mediocre man: theory and evidence from Sweden", American Economic Review, Vol. 107 No. 8, pp. 2204-2242.
- Conde-Ruiz, J.I. and Hoya, C. (2015), "Gender (in)equality act and large Spanish corporations", Policy Papers 2015-03, FEDEA.
- Conde-Ruiz, J.I. and Marra de Artinano, I. (2016), "Gender gaps in the Spanish labor market", Studies on the Spanish Economy eee2016-32, FEDEA.
- Conde-Ruiz, J.I., Ganuza, J.J. and Profeta, P. (2017), "Statistical discrimination and the efficiency of quotas", Working Papers 2017-04, FEDEA.

- Cuberes, D. and Teignier, M. (2016), "Aggregate effects of gender gaps in the labor market: a quantitative estimate", *Journal of Human Capital*, Vol. 10 No. 1.
- Eckbo, B.E., Nygaard, K. and Thorburn, K.S. (2016), "How costly is forced gender-balancing of corporate boards?" European corporate governance institute (ECGI)", Finance Working Paper No. 463/2016.
- Engelstad, F. and Teigen, M. (2012), "Firms, Boards and Gender Quotas: Comparative Perspectives", Emerald, Chapter 4.
- European Commission (2011), "Strategy for Equality between Women and Men 2010-2015, Publications Office of the European Union, Luxembourg, available at: https://eur-lex.europa.eu/legal-content/ES/TXT/?uri=LEGISSUM%3Aem0037
- Ferrari, G., Ferraro, V., Pronzato, C. and Profeta, P. (2016), "Do board gender quotas matter? Selection, performance and the stock market effects", WP Dondena, Vol. 92IZA, CESifo.
- Holzer, H.J. and Neumark, D. (2006), "Affirmative action: what do we know?", *Journal of Policy Analysis and Management*, Vol. 26 No. 2, pp. 463-490.
- Huse, M. and Seierstad, C. (2013), "Getting women on to corporate boards: consequences of the Norwegian gender balance law", *The European Financial Review*, Vol. 12, pp. 37-39.
- Mateos de Caboa, R., Terjesen, S., Escot, L. and Gimeno, R. (2019), "Do 'soft law' board gender quotas work? Evidence from a natural experiment", *European Management Journal*, Vol. 37 No. 5.
- Pande, R. and Ford, D. (2011), "Gender quotas and female leadership: a review", Background Paper for the World Development Report on Gender.
- Pletzer, J.L., Nikolova, R., Kedzior, K.K. and Voelpel, S.C. (2015), "Does gender matter? Female representation on corporate boards and firm financial performance a meta-analysis", *PLoS One*, Vol. 10 No. 6.
- Post, C. and Byron, K. (2014), "Women on boards and firm financial performance: a meta-analysis", Academy of Management Journal, Vol. 58 No. 5, pp. 1546-1571.
- Profeta, P., Amidani Alberti, L., Casarico, A., D'Amico, M. and Puccio, A. (2014), Women Directors The Italian Way and Beyond, Palgrave Macmillan, Chapter 3.

#### Further reading

- Beneito, P., Boscá, P.J.E., Ferri, J. and García, M. (2018), "Women across subfields in economics: relative performance and beliefs", Working Papers 2018-06, FEDEA.
- Bian, L., Leslie, S. and Cimpian, A. (2017), "Gender stereotypes about intellectual ability emerge early and influence children's interests", Science, Vol. 355 No. 6323, pp. 389-391.
- CNMV (2015), "Código unificado de buen gobierno", available at: www.cnmv.es/DocPortal/ Publicaciones/CodigoGov/CUBGrefundido\_JUNIO2013.pdf
- CNMV (2018), "Presencia de mujeres en los consejos de administración y en la alta dirección de las sociedades cotizadas", available at: http://cnmv.es/portal/Publicaciones/ConsejerasDirectivas. aspx
- European Commission (2018), "Report on equality between women and men in the EU", available at: https://publications.europa.eu/en/publication-detail/-/publication/950dce57-6222-11e8-ab9c-01aa75ed71a1
- Institutional Shareholder Services Inc. (ISS) (2018), "Gender diversity on boards: a review of global trends", available at: www.issgovernance.com/library/gender-diversity-boards-review-global-trends/

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# Appendix. Description of the data and some figures

To create this database, we have used the corporate governance annual reports that stock-listed companies are obliged to present annually to the National Stock Market Commission ("Comisión Nacional de Mercado de Valores (CNMV)"). On the one hand, the Corporate Governance Annual Report offers information regarding the composition of the board of directors, the positions in the board and the types of board members of the company. It has been available since 2003 on the CNMV's webpage. Furthermore, since 2013, companies must include the measures adopted to increase the presence of women in boards of directors and to offer a justification and explanation in the case there is a low female representation. On the other hand, in the Annual Report on Directors' Remuneration, we can find additional information regarding the boards members' remuneration. We have omitted from the analysis and the database those companies in liquidation and those for which it is understood that Spain is a host member state. In other words, we have omitted those companies whose stock market values are admitted to trading on an official Spanish secondary market and, in accordance with the previous article, Spain is not a member state of origin. Examples of these companies can be Airbus or Arcelor Mittal. For this analysis, all the companies for which their accounts had been published in July 2017 have been considered.

As the introduction mentions, to carry out the analysis, we have gathered the information of all the board members of the stock-listed companies throughout the given period. In Table AI, it can be observed that both the number of companies and the number of board members has hardly changed in the studied period. In 2013, there were 140 listed companies and 1,402 directors, while in 2017, there were 138 companies and 1,363 directors. The medium size and the median size have hardly changed.

It is relevant for this article to distinguish between IBEX companies and the rest of the companies because, as we will later analyze, there are significant differences between the two. A salient difference includes the size of the boards, as it can be seen in Table A1. IBEX companies are larger compared to the rest. Specifically, the average size of the IBEX companies encompasses 13 board members, while those that do not belong to the IBEX have an average of eight board members.

ers         Average size         Median size         Median size         Median size         No. of companies         nem           10.01         9.5         485         13.31         13         105         9           9.64         9.5         454         13.35         13         105         8           9.69         9.5         444         13.06         13         107         9           9.83         10         438         12.88         13         104         9			TOTAL			B	IBEX			Non-IBEX	EX	
140         1,402         1001         9.5         486         13.31         13         105         91         92           141         1,350         964         9         466         13.31         13         105         884           142         1,376         969         9.5         454         13.35         13         108         922           141         1,386         9.83         10         444         13.06         13         107         942           138         1,383         10         438         12.88         13         104         925	Voor	No.	No. of	Aronomore	Modion sino	No. of board	A service on the service A	Modion sin	No of commonities	No. of board	Orio oxogran	Modion oigo
140         1,402         1001         9.5         485         13.86         14         105         917         873           140         1,350         964         9         466         13.31         13         105         884         842           142         1,376         9,69         9,5         454         13.35         13         108         922         854           141         1,386         9,83         10         444         13.06         13         107         942         880           138         1,363         9,88         10         438         12.88         13         104         925         889	real	or companies	Doard members	Average size	Median Size	members	Average size	Median Size	ivo, or companies	members	Average size	Median Size
140         1,350         9.64         9         466         13.31         13         105         884         8.42           142         1,376         9.69         9.5         454         13.35         13         108         922         8.54           141         1,386         9.83         10         444         13.06         13         107         942         8.80           138         1,383         9.88         10         438         12.88         13         104         925         8.89	2013	140	1,402	10.01	9.5	485	13.86	14	105	917	8.73	∞
142         1,376         9.69         9.5         454         13.35         13         108         922         8.54           141         1,386         9.83         10         444         13.06         13         107         942         8.80           138         1,363         9.88         10         438         12.88         13         104         925         8.89	2014	140	1,350	9.64	6	466	13.31	13	105	884	8.42	8
141         1,386         9.83         10         444         13.06         13         107         942         8.80           138         1,363         9.88         10         438         12.88         13         104         925         8.89	2015	142	1,376	69.6	9.5	454	13.35	13	108	922	8.54	6
138         1,363         9.88         10         438         12.88         13         104         925         8.89	2016	141	1,386	9.83	10	444	13.06	13	107	942	8.80	∞
	2017	138	1,363	88.6	10	438	12.88	13	104	925	8.89	∞

**Table AI.**Number of listed companies and board members: 2013-2017

Term	Frequency	No. of companies	Soft board gender
1. Consejo (board)	534	123	gender
2. Administración (management)	373	112	
3. Selección (selection)	284	94	
4. Consejeros (directors)	198	88	
5. Comisión (commission)	166	73	
6. Nombramientos (designations)	153	82	67
7. Consejeras (female directors)	148	76	
8. Diversidad (diversity)	141	61	
9. Política (policy)	134	64	
10. Mujeres (women)	133	78	
11. Como (as)	123	69	
12. Objectivo (objective)	119	57	
13. Género (gender)	109	62	
14. Miembros (members)	109	66	
15. Sociedad (society)	109	58	
16. Candidatos (candidates)	106	63	
17. Retribuciones (retributions)	99	66	
18. Conocimientos (knowledge)	74	49	
19. Nombramiento (designation)	74	40	
20. Reglamento (rules)	74	52	
21. 2017	71	52	
22. Número (number)	71	58	
23. Discriminación (discrimination)	65	48	
24. Sesgos (bias)	64	53	
25. Sexo (sex)	62	48	
26. Artículo (article)	61	39	
27. Establece (states)	59	42	
28. Implícitos (implicit)	59	50	
29. Procedimientos (procedures)	55	43	T-1-1- AT
30. 2020	51	44	Table AII.
Source: Own elaboration using data from CNI	MV		Most frequent terms used in 2017

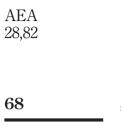
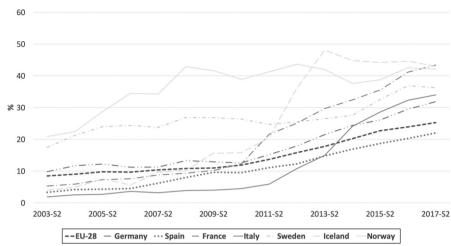


Figure A1.
Percentage of women on boards of large stock-listed companies: cross-country comparison



Source: European commission gender balance in decision making positions database

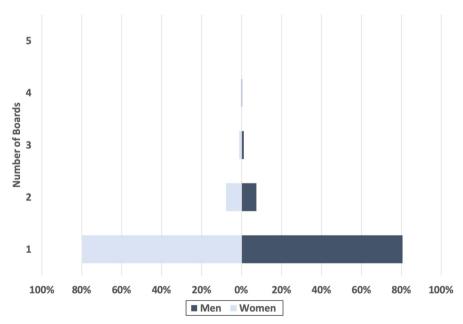


Figure A2.
Distribution of board
members by number
of boards: men versus
women

Source: Own elaboration using data from CNMV