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Networks of Boards of Directors: Is the "Golden Skirts" Only an Illusion?[1]

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Abstract: *In this empirical research, using a database of 41,107 directors from 38 European countries from 1999 to 2015, we analyze the topological features of the director's networks and observe that the degree distribution for both men and women follows a power law. The exponent of the power law is higher for women than the one for men, suggesting a milder role of interlocking for women that points to the absence of the "Golden Skirts" phenomenon at the European level (i.e., women who accumulate more directorships than men). This gender gap in power laws has faded away during the studied period, coinciding with two counteracting external forces. On one hand, the diffusion of corporate governance good practices in European companies, reducing the size of boards and discouraging the multiple directorships by a single person, democratizing the director's network. On the other, the political and regulatory pressure for more women on boards across Europe, creating a high demand for women in the network.*

Key Words: social networks, board directors, gender, power-law, discrimination

INTRODUCTION

In recent years, there has been a growing interest in promoting gender diversity on boards of directors. Indeed, concerned with persistently low female representation and potential discrimination on corporate boards, and mimicking political gender quotas (Baltrunaite, Bello, Casarico, & Profeta, 2014; Esteve-Volart & Bagues, 2012), many European countries, such as Norway, Spain, France, the Netherlands, Belgium and Italy since 2003 have established minimum quotas for female representation on the corporate boards of listed and/or state-owned companies (Mateos de Cabo, Terjesen, Escot, & Gimeno, 2019). Although these quotas requiring that a minimum 30-40% of board members have to be women, with enforcement mechanisms for compliance (Gabaldon, de Anca,

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Mateos de Cabo, & Gimeno, 2016) are mainly a European phenomenon,[1] recently the state of California, in the US, implemented its own gender quota law for boards in 2018. Furthermore, adding to this legal pressure, corporate governance codes all over the globe are specifically mentioning and recommending gender diversity on boards (Seierstad, Gabaldon, & Mensi-Klarbach, 2017).

Despite this political and regulatory pressure, the average presence of women on boards (WoB) per country remains still scarce or stagnated all over the globe, even so in states or countries with mandatory laws. Furthermore, the limited research on firms and actual boards' reasons to resist this trend, remains inconclusive on the reasons behind it (Gabaldon et al., 2016). Among the most cited causes is the limited presence of women in powerful social and professional networks (Ibarra, 1992). In fact, that limited pool of women candidates has been argued to have the negative effect of producing the known as "Golden Skirts" phenomenon (Seierstad & Opsahl, 2011; Huse, 2011), the tendency to concentrate director positions on a few sets of women accumulating a disproportioned amount of seats, instead of a more evenly-distributed situation.

However, in order to assess correctly if this effect is taking place, it will be relevant to analyze directors' networks. This will allow us to go further away from the common analysis of the proportion of WoB to take into account the whole community of directors. If the phenomenon of Golden Skirts is true, we will expect that a small set of women will accumulate a disproportionate fraction of power, and that this accumulation will be bigger than in the male case. So, in order to test this fact, we need to compare the power accumulated by more powerful women with their equivalent male counterparts in the directors' community. Network analysis, and the comparison of the resulting power laws of men and women allow testing for the presence of golden skirts.

The study of complex systems by means of network analysis has grown in popularity in recent decades. These systems can be modeled as a net, in which the components are regarded as nodes or vertices and the interaction between them as links or edges. In the particular case of social networks, individuals are nodes or vertices, linked by social interactions, such as friendship, professional ties or as in this study, by being seated on the same board.

The first theoretical approach attempts to understand the behavior of the complex network topology began with the seminal work of Erdös and Rényi (1961) that merged probability theory with graph theory, establishing the so-called random graph theory. They analyzed networks with a fixed number of nodes and interactions arising randomly. However, in real networks, the degree or the number of node links are not completely random. While studying real-life data Barabási and Albert (1999) found that the tail of the degree distribution or the probability that a random chosen edge is connected to other nodes follows a power-law (a fat tail distribution). The phenomena of the power-law degree distribution has been widely studied in different types of networks, such as film actors (Watts & Strogatz, 1998), the World Wide Web (Albert, Jeong, & Barabási, 1999; Broder et al., 2000), the citation network (Redner, 1998), the protein interaction network (Jeong, Mason, & Barabási, 2001), electronic circuits

(Cancho, Janssen, & Solé, 2001), internet (Faloutsos, Faloutsos, & Faloutsos, 1999), and e-commerce (Stephen & Toubia, 2009) among others.

Because of the growing political and regulatory pressure across Europe to increase not only the proportion but also the power and influence of women in the private economic sector, we use social network analysis to study the evolution of the network of directors in Europe, and the existence of power laws on network degree distributions for both men and women from 1999 to 2015. The paper is organized as follows. The methodology, which follows next, shows the data used and the topology of the network. The results of the estimation of the power-law for the degree distribution and its evolution along time for both men and women. Finally, we discuss the possible causes of the gender differences in the emergence of the power-law and its evolution.

METHODOLOGY

Analytic Strategy

There is considerable research studying the topological properties and characteristics of national networks of boards of directors: either in the US (Huang, Vodenska, Wang, Havlin, & Stanley, 2011); US and Italy (Battiston & Catanzaro, 2004; Caldarelli & Catanzaro, 2004); Italy (Piccardi Calatroni, & Bertroni, 2010; Drago & Ricciuti, 2017; Bargigli & Giannetti, 2018); Australia and US (Robins & Alexander, 2004); Poland (Sankowska & Siudak, 2016); Germany (Heinze, 2004); UK, US and Germany (Conyon & Muldoon, 2006); or Switzerland (Daolio, Tomassini, & Bitkov, 2011). A special case is van Veen and Kratzer (2011), which used data of large publicly listed European corporations in fifteen European countries. The main findings in all this papers are quite similar, in the sense that board of directors tends to be small-world networks, assortative (high degree nodes are, on average, connected to other nodes with high degree and vice versa), highly clustered, and, dominated by a giant component (a significant proportion of the nodes are connected together in one component) Since a director can be seated in more than one board (interlock), so the network becomes a complex and entangled one.

Another relevant dimension for our study is the time evolution of the network. Heinze (2004) showed that the network has not suffered any structural change between 1989 and 2001. The other example is Bargigli and Giannetti (2018), who found that institutional changes between 1952 and 1983 were not able to produce changes in the small-world structure of the network.

We considered a data set of board of directors' compositions and, for each year, we have built up a separate social network. Given a director, she/he is connected (i.e., there is a link) with all the directors of the same board, as well as with all the other directors among them. In order to identify the architecture of this network, we calculated the main topological measures of the network and their evolution in time. The main difference with all the papers previously mentioned that have studied networks of directors is that they considered all directors to be equal, and none of them examined the position of women in the network.

After studying the main topological measures, and taking into account that one well-known property of large social networks is the power-law degree distribution, also known as "scale-free" property, we are going to study the evolution of the exponent of power laws for both men and women. The degree k in the network under study represents the number of directors sitting on a board with each director in the network, denoting how a director is connected with other directors on one or more boards. The degree is the connectivity of an individual (a member of a board) with other individuals in the organization(s). We can assume that higher levels of degree centrality enhance knowledge flows (Jacobsen & Guastello, 2011). The existence of the power law in the degree distribution indicates than there are only a few nodes (hubs) that have many connections whereas the vast majority of the others are those with a small degree. The evolution of the power-law degree exponent will allow obtaining conclusions on the changing position of women and men on board of directors in terms of connectivity.

We check whether degree k exhibits power-law, $P(k) \propto k^{-\alpha_k}$ distribution, where α_k is the scale-free degree exponent. Given the negative sign of the exponent, the higher the value of α_k, the faster the decay in the value of $P(k)$. The value of the exponent of the power law can be estimated by maximum likelihood (Clauset, Shalizi, & Newman, 2009),

$$\hat{\alpha}_k = 1 + n\left[\sum_{i=1}^{N} \ln \frac{x_i}{x_{min}}\right]^{-1}.$$

The standard deviations are obtained as $\sigma = (\hat{\alpha}_k - 1)/\sqrt{n}$. These estimators are asymptotically normal and consistent (Clauset et al., 2009). Therefore, we can test, for each year, if, the distribution of men and women share the same exponent, by testing the difference in means of the normal distributions of $\hat{\alpha}_{kw}$ and $\hat{\alpha}_{km}$, using the standard t-test for unequal variances between groups (Welch, 1947) test, that performs well even for small sample sizes, to see if two sample means are significantly different:

$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s_1^2}{N_1} + \frac{s_2^2}{N_2}}}$, with degrees of freedom equal to $d = \frac{\left(\frac{s_1^2}{N_1} + \frac{s_2^2}{N_2}\right)^2}{\frac{s_1^4}{N_1^2(N_1-1)} + \frac{s_2^4}{N_2^2(N_2-1)}}$.

Data

Our data on board composition comes from Boardex database, from 1999 to 2015. In this database, each director is identified by a unique ID, which allows us to track directors' connections among them. Boardex database, also includes the gender of each director, although we have had to perform a manual search with their names for the around 5% of missing gender values in Boardex. In order to determine each director's gender, we used a multi-step process that began by examining first names. When gender was not easily indemnified from the first name of the director (generally Japanese, Korean, French, and Scandinavian first names), we used a variety of methods including gender-specific language in annual report biographies, photographs, and internet articles. Countries included in the analysis were Austria, Belgium, Bosnia, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, Republic Of Ireland, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and Ukraine, plus the UK overseas territory of Gibraltar, the British Crown dependencies of Guernsey, Isle of Man and Jersey, and the autonomous country of Denmark, the Faroe Islands.

Table 1. Network topology.

Year	*Nodes*	*Links*	*Diam-eter*	*Avg. Path Length*	*Density*	*Transitivity Coef*	*N. Comps.*	*Giant Comp.*
1999	4954	46676	12	4.6227	0.0038	0.6662	61	4015
2000	6615	59065	15	4.9984	0.0027	0.6398	104	5362
2001	7616	66015	18	5.3950	0.0023	0.6298	131	6448
2002	8597	70872	19	5.4093	0.0019	0.6336	161	7183
2003	9664	77562	16	5.5370	0.0017	0.6372	193	7879
2004	9942	78440	17	5.5491	0.0016	0.6304	213	8046
2005	11590	87855	18	5.6478	0.0013	0.6445	294	9139
2006	12445	92003	19	5.8453	0.0012	0.6677	354	9529
2007	14382	101800	19	6.0895	0.0010	0.6759	436	10652
2008	14919	105166	20	6.1918	0.0009	0.6844	457	11098
2009	14421	100630	20	6.2679	0.0010	0.6946	448	10698
2010	14522	98473	18	6.1228	0.0009	0.6882	464	10726
2011	16438	110600	17	6.1585	0.0008	0.6893	527	12109
2012	17625	117819	16	6.0855	0.0008	0.6958	559	12894
2013	18537	123313	20	6.2966	0.0007	0.7035	649	13183
2014	20235	129544	19	6.5422	0.0006	0.7140	749	14326
2015	22654	144340	20	6.7000	0.0006	0.7444	849	15982

As can be seen in Table 1, the network has been growing in size, both in terms of nodes (i.e., the numbers of directors in the net) and connections among them (i.e., both are directors in the same board), being the biggest network the one at the end of the observed period (2015), having more than 22,000 directors, and almost 150,000 direct connections among them. However, as Fig. 1 illustrates, the ratio of direct connections (edges, *E*) per director (node, *N*) is declining (and following a negative linear relationship with the logarithm of the network size, $E/N \propto \log N$. This is not the only relationship we find between the logarithm of the network size and other topological features of the network. For instance, the average path length (L, i.e., the mean number of steps required to go from one director) that moves around 6 links, in line with the 6 degrees of separations typical of the most famous social networks, follows a positive linear relationship that is common in small-world networks $L \propto \log N$.

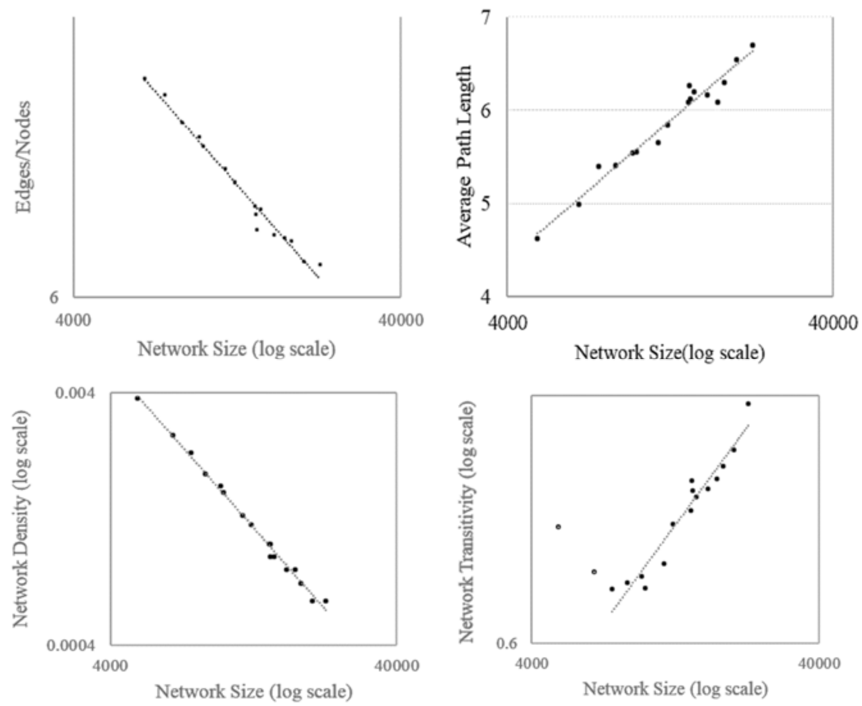

Fig. 1. Scatter plot of four network topological measures (average path length, diameter, density, and transitivity) vs. the network size (number of directors) in logarithm scale.

The *density* of the network (*D*, i.e., the number of links relative to all the potential links that the network would have had if all the directors where connected with each other) follows a power law with exponent equal to 1.27, decreasing as the network size increases, in line with the results found by Blagus, Šubelj, & Bajec (2012) for other real networks $D \propto N^{-\alpha_D}$. Finally, the *Transitivity* (i.e., the proportion of cases where two directors with a common connected director are themselves connected, ranging from 0 to 1, for a totally random and fully transitivity network respectively) is very high; this variable ranged from 63% to 74%. This is, in fact, a consequence of the way the network is built, such that all members seated on the same board are connected, creating a network clique in each company. The transitivity of the network has been growing with the size of the network, too.

Another relevant feature is the number of isolated components of the network. The network is not fully connected, meaning that not every node is reachable from any other node, as seen in Table 1; the number of isolated components ranges from 61 in 1999 to 849 in 2015. Normally, the isolated components of the network are boards of directors of mainly one or two companies, but none of its members sits on more than one or two boards of directors. However, there is one *giant component* that dominates the network, having the majority of nodes (from 81% in 1999 to 71% in 2015). This implies that even though the network is built with boards from different countries, there is a connection across countries between most of the board directors through at least one of its members.

Some of the characteristics of the network, such as the high level of transitivity and clustering (cliques), the presence of a giant component, as well as the linear relationship between the average path length and the logarithm of the network size, point to the European network of directors being a small world (Watts & Strogatz, 1998). This is in line with Davis, Yoo, & Baker (2003) that showed that the US corporate elite is a "small world". This small world feature of the European network of directors is consistent with a well-known feature of the community of directors, which is dominated by a corporate elite of well-connected directors: the "old boys' club" (Burgess & Tharenou, 2002). There are other papers that have found small-world models in the corporate governance phenomena (apart from the director network): ownership in Germany (Kogut & Walker, 2001), Canadian investment banks and their membership of underwriting syndicates (Baum, Shipilov, & Rowley, 2003), strategic alliances among firms in the chemical and food and electrical industries (Verspagen & Duysters, 2004), or U.S. firms in 11 industry-level alliance networks (Schilling & Phelps, 2007).

Once we have described the network, in the following section we will assess the position of men and women in the network, and the relevance of the scale-free network property for each of them and their evolution in time.

RESULTS

Concerning the differences between men and women in the network, table 2 shows the evolution of the distribution by gender in the network for each year. It can be observed that both the nodes that represent the number of men and women increase. In addition, the percentage of WoB has almost tripled in the period under study. Interestingly, the proportion of WoB in the giant cluster that was below the proportion in the whole network at the beginning of the analysis period (1999), become higher than in the network at the end period (2015).

Regarding the connections, women have, on average, 13.8 links every year on the boards, compared to 14.2 links for men. Interestingly, 0.22% of men have 100 links or more compared to only 0.02% women, while 2.03% of men and

0.92% of women have 50 links or more. These figures point to a higher concentration of connections among men directors than women. In order to give a measure of the concentration degree of both women and men and test for gender differences, we move to estimate the power laws of the degree distribution. Figure 2 shows the log-log scatter plot for the degree (k) and the observed frequency of that degree ($P(k)$) for both men and women each year. As can be seen, once reached a given size, there is a linear relationship between both variables.

Table 2. Summary of the Difference of Men and Women in the Network.

Year	*# Men Full net*	*# Women Full net*	*% Women Full Net*	*# Men Giant Cluster*	*# Women Giant Cluster*	*% Women Giant Cluster*
1999	4650	304	6.1%	3793	222	5.5%
2000	6196	419	6.3%	5026	336	6.3%
2001	7135	481	6.3%	6038	410	6.4%
2002	7998	599	7.0%	6685	498	6.9%
2003	8891	772	8.0%	7246	630	8.0%
2004	9096	843	8.5%	7344	701	8.7%
2005	10600	989	8.5%	8353	786	8.6%
2006	11375	1069	8.6%	8674	855	9.0%
2007	13060	1319	9.2%	9637	1014	9.5%
2008	13501	1416	9.5%	9988	1109	10.0%
2009	13015	1404	9.7%	9582	1114	10.4%
2010	12959	1563	10.8%	9514	1212	11.3%
2011	14430	2007	12.2%	10562	1546	12.8%
2012	15252	2370	13.4%	11063	1829	14.2%
2013	15710	2826	15.2%	11046	2136	16.2%
2014	16917	3318	16.4%	11748	2578	18.0%
2015	18688	3966	17.5%	12969	3013	18.9%

In reference to the estimation of the power law, Table 3 shows these maximum likelihood estimators for each year and gender, setting x_{min} = 10 (the typical board size across the whole period is 10.2), the same threshold used by Caldarelli and Catanzaro (2004) for the degree of distribution of directors' network for Italy and the US. Using the asymptotically normal and consistent standard deviations, we can test, for each year, if the distribution of men and women share the same exponent, by testing the difference in means of the normal distributions of $\hat{\alpha}_{kw}$ and $\hat{\alpha}_{km}$ for different variances, using a difference in means test (Welch, 1947), as we show in the last two columns of Table 3.

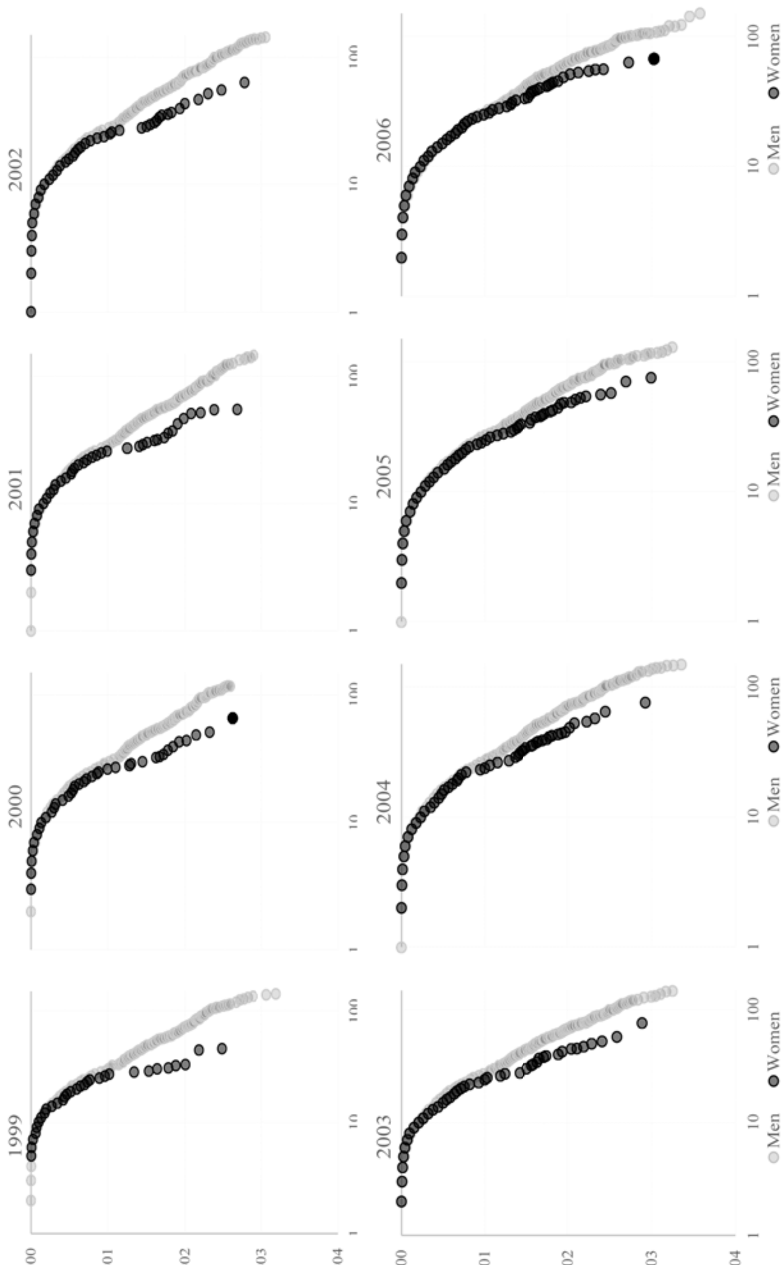

Fig. 2a. Power Law distribution of the network degree for men (grey) and women (black).

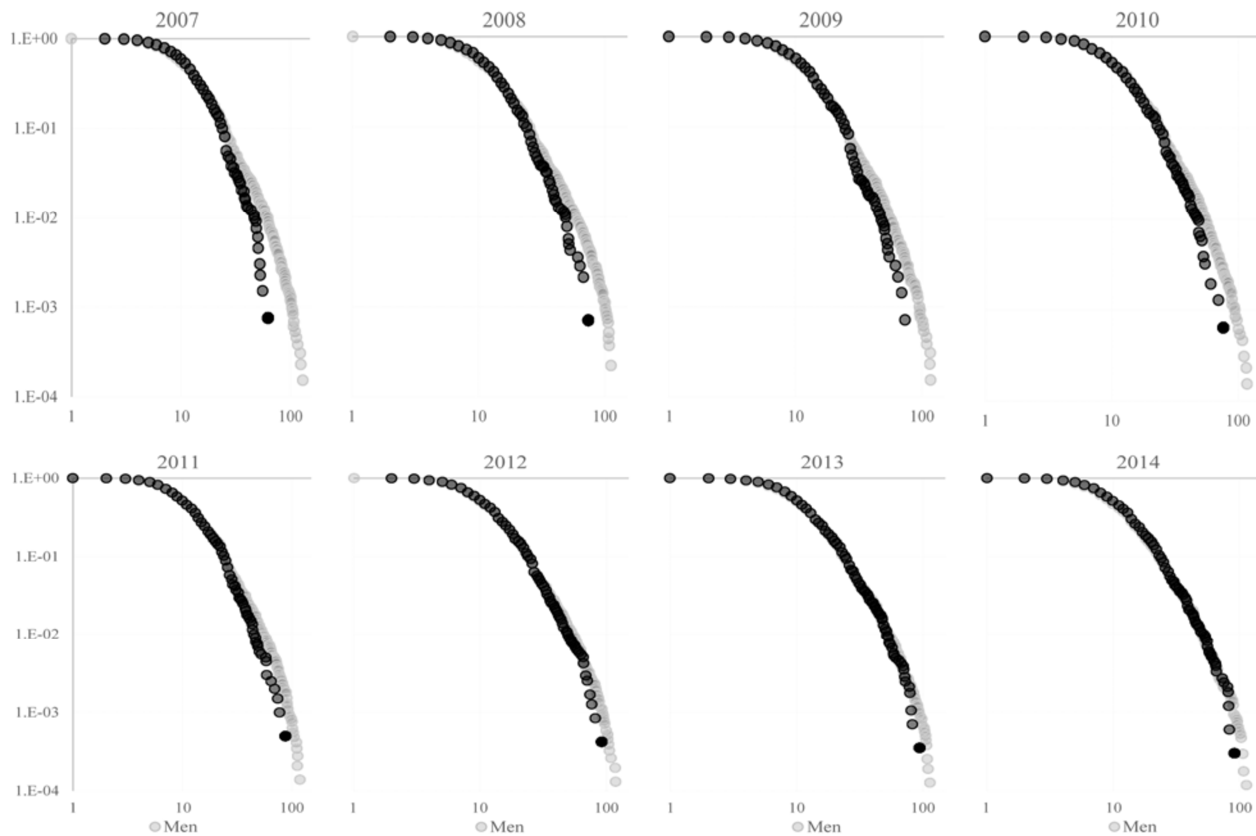

Fig. 2b. Power Law distribution of the network degree for men (grey) and women (black).

Table 3. Power Law Exponent Estimator for the Distribution of Degree for Both Men and Women.

	Men			*Women*			*Differences*
Year	*n*	*α*	*s.d.*	*n*	*α*	*s.d.*	*Welch t-test*
99	4,650	2.584	0.025	304	2.865	0.117	2.352*
00	6,196	2.622	0.023	419	2.952	0.108	2.979**
01	7,135	2.647	0.023	481	2.996	0.103	3.321***
02	7,998	2.718	0.023	599	3.065	0.098	3.456***
03	8,891	2.760	0.022	772	3.128	0.091	3.923***
04	9,096	2.781	0.023	843	2.997	0.084	2.477*
05	10,600	2.804	0.022	989	3.001	0.079	2.420*
06	11,375	2.853	0.022	1,069	3.016	0.074	2.100*
07	13,060	2.879	0.021	1,319	3.106	0.071	3.051**
08	13,501	2.902	0.021	1,416	3.098	0.069	2.734**
09	13,015	2.942	0.022	1,404	3.062	0.069	1.654
10	12,959	2.928	0.022	1,563	3.078	0.069	2.086*
11	14,430	2.926	0.021	2,007	3.037	0.060	1.754
12	15,252	2.964	0.021	2,370	3.020	0.054	0.978
13	15,710	2.976	0.021	2,826	3.016	0.049	0.762
14	16,917	3.030	0.021	3,318	3.026	0.046	0.071
15	18,688	2.976	0.020	3,966	2.884	0.040	2.079

*p < .05, **p< .01, ***p<.001

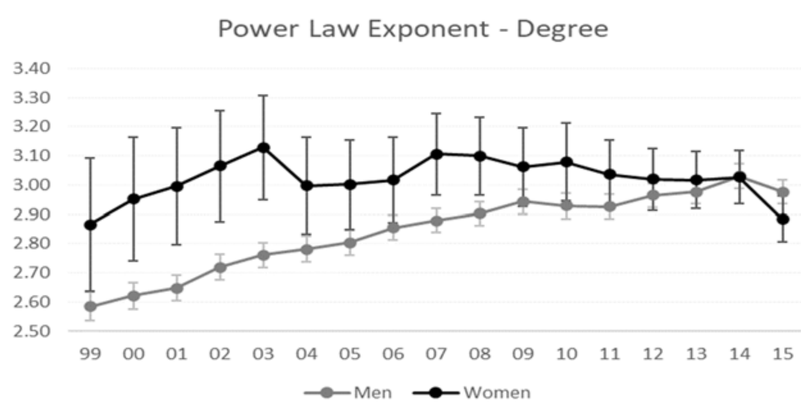

Fig. 3. Evolution of the degree distribution power law exponent for men (grey) and women (black), with 95% confidence iterval bands.

So, we have found the existence of a power law in the degree distribution, so we can conclude that there are only a few nodes (hubs) that have many connections whereas the vast majority of the others are those with a small degree. Further, the statistical test shows that the estimated exponent is significantly higher for women than for men between 1999 and 2010, suggesting a milder concentration of connections in the women directors' case, although there is not a statistical difference after 2011.

Figure 3 shows the time evolution of the exponent for each year and gender, as well as the 95% confidence intervals. As can be seen, in the case of men this exponent has been growing systematically during the analyzed period, whereas there is not a clear tendency for women.

In the case of men, the exponent of the power law has persistently increased (going from 2.5 in 2000 to 3.0 in 2014), and has kept under the one for women (that has moved between 2.8 and 3.1 in the same period) except in the last year. The upward trend is confirmed if we regress the estimated power law exponent to the year, finding that the exponent significantly increases by 0.026 per year (see Table 4). Interestingly, if, following Caldarelli and Catanzaro (2004), we consider that beyond a certain degree, the link between directors is greatly due to interlock (i.e., a director of a board is also seated on other boards) the higher exponent for women implies a softer role of interlocking for women than for men, and therefore less power and influence on the directors' network.

Table 4. Regression of the Power Law Exponent on the Year Trend.

	Men	*Women*
Constant	2.633***	3.008***
	(0.017)	(0.034)
Year	0.026***	0.002
	(0.002)	(0.004)
# of observations	16	16
R^2	0.9349	0.0129
F stat	215.26***	0.196

On the other hand, in the case of women, the exponent behavior has not a clear tendency and seems to be stagnated slightly around 3, as confirmed by the non-statistically significant coefficient of the trend in Table 4. The combination of the upward trend for men and the stability for women has produced that the gender gap observed in the degree exponent of the power law has diminished across the period under study. In fact, testing the differences in the estimated exponents both for men and women until 2011 they are statistically different, and from then on, we cannot reject the null hypothesis that they are equal. In the last studied year, 2015, we again observe a statistical difference but this time in the opposite direction (the exponent for men becomes higher than the one for women).

DISCUSSION

The existence of the phenomenon of power laws indicates that the links within the network are not random and that the new nodes preferably establish links with other well-connected nodes. There are some specific mechanisms that could explain this network trait. The most common explanation is known as the preferential attachment rule. What essentially represents the intuitive idea of the well-known effect in sociology that the rich get richer. There are some studies that have shown the existence of a preferential attachment in real social networks since the introduction of the idea by Barabási and Albert (1999). For instance, Newman (2001) supports this rule in scientific collaboration networks; Eisenberg and Levanon, (2003) in the protein network and Capocci et al (2006) for Wikipedia. Another different plausible explanation of the emergence of a power-law distribution (Stephen & Toubia, 2009) is the sociological concept of transitivity, which is the tendency of two individuals connected with a third one to become tied to each other. This property is able to empirically explain the usual high clustering behavior of social networks (Kossinets & Watts, 2006, Newman, 2001). At the same time, preferential attachment and transitivity are not independent, as shown in Feld and Elmore, (1982) and Vázquez (2003).

Our results show that higher exponents for women imply that in the directors’ network there are fewer women hubs, than male ones. This higher values of the power-law exponent for women in the European network does not goes in line with the existence of the phenomenon labeled as the “Golden Skirts” in Norway (Seierstad & Opsahl 2011; Huse 2011), and made popular by newspapers like the Financial Times (Milne, 2009), according to which measures to promote gender equality might end up creating an uneven distribution of power within genders, with a small number of women that accumulate a large number of directorships (Seierstad & Opsahl, 2011). By contrast, we have observed that the more powerful male directors in the network accumulate more power in terms of contacts than the more powerful women.

Regarding the time evolution of power-law exponents both for men and for women we see a differentiated behavior by gender. In the case of men, there is a clear upward trend in the exponent. This outcome could be a consequence of pressures in Europe for improving the corporate governance systems after the economic downturn. These pressures have led to the diffusion of a series of ‘best practice’ recommendations around the European countries regarding the behavior and structure of firms’ board of directors, such as those related with the role and composition of the board and with improvements in the selection, remuneration, and dismissal of directors and top managers (Aguilera & Cuervo-Cazurra, 2004). Following the spread of these practices, especially those related with reducing the size of boards, separating the roles of the chairman and the chief executive, and appointing a new group of “independent” non-executive directors, there has been an increase in the degree of democratization of the male directors’ power within the network.

On the other hand, in the case of women, the exponent behavior does not have a clear tendency and seems to be stagnated slightly around 3. This could be a consequence of the democratization of power that we observe for men, having been counterbalanced by an opposing force. Our conjecture is that this counterbalancing process has been the political and regulatory pressure by various

European countries to increase the number of WoB that has forced firms to respond quickly to select and retain suitable female candidates for the corporate boards, and that are usually selected from a limited pool of women with the required qualifications and ready to occupy these positions, that usually are already in the directors' network (Terjesen, Aguilera, & Lorenz, 2015). This strong demand for women with the required profile leads to an increase in the number of women directors that occupy seats on many boards (multiple directors) that usually tend to be the more powerful ones in the network, which, in turn, raise their connectivity. This way, the regulatory pressure for more WoB through the enactment of board gender quotas would decrease women's degree exponent (causing more accumulation of power in a few hub women) while the diffusion of corporate governance good practices would increase women's exponent in a process of power democratization of women's directors, the same as the one observed in the men case. As a result, we would observe an overall neutral effect on the women's exponent evolution.

To sum up, our research provides evidence that the gender gap observed in the exponent of the power law has faded away over time to the point of not being statistically significant during the period 2011-2014. In 2015 the power-law gender gap has changed its sign in favor of women. Nevertheless, this tendency should be confirmed with the analysis of additional years in the network. Only if this sign reversion persists with time, we could start talking about a "Golden Skirts" phenomenon at the European level.

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NOTES

[1] Fifteen countries have board gender quotas: Austria, Belgium, Finland, France, Germany, Iceland, India, Israel, Italy, Kenya, the Netherlands, Norway, Portugal, Spain, and UAE; as do three regions: Greenland (a territory of Denmark), Québec (a province within Canada) and California (a state of USA). Sixteen countries have "comply or explain" legislation: Australia, Austria, Denmark, Germany, Ireland, Luxembourg, Malawi, Malaysia, Netherlands, Nigeria, Poland, South Africa, Sweden, Switzerland, the United Kingdom, and the United States (Terjesen et al., 2015; Mateos de Cabo et al., 2019). For instance, Norwegian gender quota (2003) says: "If the board has nine members, each gender shall be represented by at least four, and if the board has several members, each gender shall be represented by at least 40 per cent.", while Portuguese Gender Equality Law (2017) says: "The proportion of people of each gender newly appointed for the board of directors cannot be lower than 20% since the 1st January 2018, and 33.3% since 1st January 2020."

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