

## **Gender Quota and Inequalities inside the Boardroom**

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# Gender Quota and Inequalities inside the Boardroom<sup>1</sup>

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**Abstract:** This paper examines the evolution of within-board gender inequality following the adoption of a board-level gender quota for French listed companies in 2011. We show that the quota has succeeded in opening the doors of boardrooms to new, unseasoned women, who present distinctive characteristics. However, conditional on these characteristics, we provide evidence that female new comers are less likely than their male counterparts (both seasoned and new comers) to hold key positions within boards (namely, audit, compensation and nominating committee membership and chairing). This positional segregation is the main driver of a within-firm gender fees gap that amounts to 5.5% post-quota, as against 3.3% pre-quota.

**Keywords:** Gender inequality, Board gender quota, Board committees, Gender fees gap.

## Les quotas hommes femmes au sein des conseils d'administration : quel rôle pour les administratrices ?

**Abstract :** Cet article s'intéresse à la situation des administratrices, consécutivement à l'adoption de la loi Zimmerman-Copé en 2011, instaurant un quota de 40% de femmes d'ici 2017 (20% en 2014) au sein des conseils d'administration des grandes sociétés cotées françaises. Notre échantillon d'analyse est le SBF120, sur la période 2006-2014. Nous montrons tout d'abord que le quota a réussi à ouvrir les portes des conseils d'administration à des femmes qui n'étaient pas déjà présentes sur le marché des administratrices. Ces femmes ont des caractéristiques individuelles spécifiques relativement aux hommes (plus indépendantes, moins expertes sectorielles et plus souvent de nationalité étrangère). Nous nous intéressons ensuite au rôle des femmes au sein des conseils, en utilisant la rémunération individuelle (jetons de présence) comme une mesure du rôle joué par chaque membre du conseil. Nous montrons alors que les femmes supportent, en moyenne et dans une entreprise donnée, une décote de rémunération de l'ordre de 5% - ne s'expliquant qu'en partie par leurs caractéristiques spécifiques. Cette décote est la conséquence directe d'un plafond de verre interne, induisant une forme de ségrégation à l'intérieur des conseils d'administration français. Plus précisément, nous montrons que les sociétés ont jusqu'ici échoué à garantir une égalité d'accès, entre hommes et femmes, aux comités d'audit et de nomination / rémunération. Au total, le quota a même amplifié la ségrégation homme / femme au sein des conseils, avec un accroissement de la décote de rémunération supportée par les administratrices au cours de la période étudiée.

**Mots-clefs :** conseil d'administration, quota, ségrégation, jetons de présence.

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## 1. Introduction

Representing almost half of the workforce in Europe or in the U.S., women are still largely under-represented in corporate boards. In 2014, only 20% of directorships were on average held by female directors in the largest European listed companies. In the U.S., less than 15% of board seats were held by women in the early 2010s (Tinsley, Wade, Main and O'Reilly 2017, figure 1). There is a growing consensus that this persistent disequilibrium in top positions is now one of the most important mark of gender inequality on the labor market. In recent years, board diversity has therefore come to the front in public policy, especially in Europe.<sup>1</sup> In the U.K., Sweden, Denmark, Finland, Austria, Poland or Luxemburg, national corporate governance codes now require listed companies to consider gender imbalance at the board level, in a 'comply or explain' approach. Following the Norwegian path-breaking move, other countries have adopted a legislative approach, implementing mandatory gender quotas. This is the case of 14 countries including France, The Netherlands, Spain, Italy, Germany and Belgium with targets between 30% and 50%. Quotas have induced a prompt adjustment in the gender mix. In France, the average fraction of women in the boards of the 120<sup>th</sup> largest listed firms went from 7% in 2006 to 30% in 2014. At face value, gender quotas have been successful, breaking the glass ceiling at the top of listed companies. However, it would be misleading to consider gender inequality at the board level to be fully resolved.<sup>2</sup>

A quota, at least the quotas that have been enacted in Europe over the recent years, does not guarantee gender equality *within* boards, as it does not say anything on the positions and role played by female directors. Not every director is equal. There exist some key positions inside the boardroom, associated in particular to sub-committee membership and chairing. Individuals holding these positions have a greater ability to shape corporate decisions. Importantly, the forces preventing women to enter board (in particular, statistical or taste-based discrimination) are also likely to play *within* board: women may then be restricted to lower positions – thus jeopardizing the potential positive effect of a gender quota. The within-board distribution of positions and roles across gender has received very little interest so far, especially in the literature on gender quota. This is our research question.

We use the French context as a quasi-natural experiment framework. In January 2011, the Parliament voted the so-called 'Zimmermann-Copé' law, requiring each gender to represent at least 40% of directors in 2017 with an intermediate threshold of 20% in 2014 in all listed companies. Our analysis is based on the sample of firms belonging to the SBF120 index in 2011 (i.e. the 120 largest listed firms in 2011 by market capitalization and trading volume on Euronext NYSE-Paris).

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<sup>1</sup> In the U.S. or Canada, we rather observe grassroots campaigns inviting listed companies to sign public pledge on gender equality.

<sup>2</sup> Note that women under-representation among corporate executives (and in particular regarding CEO positions) is still massive (see e.g. Smith, Smith and Verner 2013). It is however another topic, that can hardly be fixed through a quota. We leave it aside in this paper.

We identify several sources of differences and inequalities between men and women within boards, and examine the way the gender quota has induced a change in this pattern of inequalities. We first show that female directors appointed post-quota have distinctive characteristics. More importantly, we show that – conditional on these individual characteristics (including tenure) – these women have faced difficulties to enter so called “monitoring” committees (audit, compensation and nominating committees). These committees are usually considered as the most important and strategic board sub-structures, and provide the larger payoffs. We do not observe a similar pattern for men arrived in the post-quota period. Our empirical results are therefore indicative of a second, inner glass ceiling: while the quota has allowed women to break the first glass ceiling (entering the boardroom), it has failed to suppress “positional” gender segregation within French boards. We then use director fees (board member remuneration) as a proxy of individual role. Fees reflect committee arrangements, but are also driven by unobservable factors (such as individual attendance) that together contribute to determine individual role or influence in the decision-making process. We show that female directors support an average within-firm fees discount of 4.8% over the whole period. This discount – mainly borne by female directors appointed after the quota enactment – is primarily driven by the positional gender segregation previously identified. Ultimately, we show that the French quota has resulted in an increase in the gender fees gap (from 3.3% on average pre-quota to 5.5% post-quota).

This paper makes the following contributions.

First, the paper complements the literature on gender diversity and board.<sup>3</sup> So far, the literature has mainly focused on the relationship between gender diversity and firm performance (Adams and Ferreira 2009), especially since the enactment of the first quota in Norway (Ahern and Dittmar 2012; Matsa and Miller 2013). However, even a natural experiment such as the Norwegian regulation makes the identification of a causal relationship between diversity and performance a difficult task: some confounding effects, such as other concomitant regulations, early compliers' effects and correlated board changes may hide the true gender impact (Ferreira 2015). Hillman (2015) then suggests going beyond the effect of gender diversity on performance by investigating in more detail how firms comply with either soft or hard regulation. Our paper does so for the French quota in order to deeper understand the way gender quotas affect board organization and functioning. In particular, we pay attention to committee arrangements. As stressed by Adams, Ragunathan and Tumarkin (2016), functional division of labor within board (through dedicated committees) is crucial to understand board functioning, albeit under-examined. More broadly, we investigate the role played inside the boardroom by female directors following the regulation – something that has not been covered so far in the literature on quotas to the best of our knowledge.

Second, we contribute to the literature on the determinants of director compensation and on the potential existence of gender discrimination inside the boardroom. Director compensation has received limited attention so far, as compared to CEO remuneration; the same is true for

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<sup>3</sup> For a literature review on gender diversity at the board-level, see Terjesen, Sealy and Singh (2009).

gender inequality among directors, as compared to gender inequality among workers (see e.g. Ponthieux and Meurs 2015). These are, however, crucial questions. Like wages, director fees can be considered as a global measure of the services provided by individuals (at the very top of listed companies): they provide indirect information on the way the board functions, and on the relative influence of its members. Understanding the determinants of these fees and raising the questions of gender inequality in their distribution is therefore of interest both from a social perspective and from a corporate governance perspective. The studies by Gregory-Smith, Main and O'Reilly (2014) and Goh and Gupta (2015) are the most closely related to ours. They report the existence of a gender fees gap in Great-Britain, between 5 and 8% – that they leave mostly unexplained. We provide a measure of this gap and its evolution in France, and examine in detail its determinants (discrimination, segregation, attendance problem, etc.).

The rest of this paper is structured as follows. Section 2 presents a short literature review on gender quota and on director fees. Section 3 examines the characteristics of women entering boardrooms following the quota enactment. Sections 4 and 5 analyze the determinants of director positions and director fees. Section 6 examines the gender fees gap in more detail. Section 7 concludes.

## **2. Literature review and research question**

### *The effects of a gender quota*

So far, the vast majority of the literature on board gender quota has focused on the implementation of the Norwegian quota – fully enforceable since 2008 – with a specific interest for its impact on firm performance.<sup>4</sup> Two studies have investigated the relationship between board diversity and firm performance in detail – stressing the detrimental effects of the regulation. Ahern and Dittmar (2012) have shown that Tobin's Q dropped off following the quota. Matsa and Miller (2013) have reported evidence that treated firms have been less likely to undertake workforce reductions, more likely to have increased their labor costs and employment levels – with negative effects on profitability. The two studies therefore support the idea that the new regulation has come to a cost, making firms deviate from their optimal board composition (from a shareholder value perspective).<sup>5</sup> More precisely, two costs related with a quota are usually identified.

First, at a broad level, economists are often skeptic regarding the efficiency of a regulatory approach, especially in corporate governance. Such an approach places new constraints on companies, and does not take into account firm heterogeneity in terms of business models and corporate governance needs (Adams, Hermalin and Weisbach 2010).

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<sup>4</sup> For a literature review on board gender quota, see Smith (2014). For an impact study on the Italian quota see Ferrari, Ferraro, Profeta and Pronzato (2016) and for an impact study on several European countries see Comi, Grasseni, Origo and Pagani (2017).

<sup>5</sup> Note however that Ferreira, Ginglinger, Laguna and Skalli (2017), examining the French quota, have found that the regulation induced a change in recruitment and hiring practices by companies, leading to more stable director-firm matches.

Second, the implementation of a quota necessarily forces firms to appoint directors from a potential pool that may substantially differ from their usual (male-dominated) pool (Hillman, Cannella and Harris 2002; Singh, Terjesen and Vinnicombe 2008). For instance, barriers to female labor force participation in high-profile occupations are likely to generate a shortage of female candidates with top executive experience (Adams and Kirchmaier 2015). Likewise, female candidates are less likely to have business relations with the company or to be involved in interlocking directorates and corporate networks (Heemskerk and Fennema 2014; Rosenblum and Roithmayr 2015). As a consequence, appointing a woman most often means appointing an outsider or an independent director. In Norway, the average share of independent directors raised from 46% to 67% following the gender quota. Clearly, it has potential far-reaching side effects (Bohren and Staubo 2016). This kind of disrupting, structural effects may act as a short-run obstacle against the improvement of corporate governance following a gender quota. In the long run however the regulation should act as an incentive for women to invest the business and to develop the expected competences (Stark and Hyll 2014).

While this question of new female directors' characteristics has retained much of the attention in the literature on quota, we contend that the effectiveness of a gender quota also depends on the assignment of committees across board members. Committees are sub-structures comprised of few board members, in charge of specific functions (typically audit, CEO compensation design, CEO nomination, and strategy and risk policy). Belonging to one of these committees is then highly strategic to influence board decisions and firm performance. If companies choose to place new female directors in non-strategic positions inside the boardroom, then there is not much benefits to expect from a gender quota. Aside from a quota, there is disparate evidence on the repartition of committee memberships across gender. Wearing and Wearing (2004) show on British data that female directors are less likely to chair committees, while Adams and Ferreira (2009) report that women are more likely to join so-called 'monitoring' committees (audit, compensation or nominating). To the best of our knowledge, there is no evidence regarding women access to committees following a quota. We provide evidence on this point.

While important, committees are not the only driver of within-board inequalities. Attendance record, specific functions related to particular services (such as lead-director), and other unobservables are all potential determinants of the relative influence of board members in the decision-making process. We use director fees as a global metric to capture individual role or influence. In this framework, we interpret substantial changes over time in within-firm fees distribution as an indication of a change in individual roles.

### *The determinants of director fees*

Several papers have investigated the relationship between director compensation and firm-level characteristics on U.S. data (see e.g. Ryan and Wiggins 2004; Brick, Palmon and Wald 2006; Linn and Park 2005). These papers are not interested in differences among directors

(for instance gender inequality), as we do. Accordingly, they do not control for any individual director attributes. There has been a recent interest for the individual determinants of director fees, opening the way to an investigation of inequalities across groups of board members. For instance, Mallin, Melis and Gaia (2015) provide some evidence on British and Italian data that independent directors are paid more than affiliated ones. Goh and Gupta (2015) make a similar observation.

Few papers have examined the gender gap. Pucheta-Martinez and Bel-Oms (2015) report on a sample of Spanish firms the existence a gender gap, related to two (firm) characteristics: the presence of female directors in the compensation committee and the industry. Controlling for firm fixed effects and some individual characteristics such as compensation committee membership and chairing, age and tenure, Gregory-Smith et al. (2014) also show that female non-executive directors support a fees gap of around 8%. Goh and Gupta (2015) provide somewhat convergent results: female directors experiment a gender gap of 5% within firm, controlling for individual characteristics and some positions (audit, compensation and nominating committees' membership). Various factors can explain this gender gap, that are not further discussed in these papers: it can originate in a lower attendance by female directors (directly reducing meeting fees), in barriers to access committees or other rewarding positions (segregation) or, finally, in pure discrimination against female directors (less paid with the same characteristics and positions).

The potential effect of a quota on the gender fees gap is ambiguous and has never been analyzed as far as our knowledge. On the one hand, it can contribute to reduce this gap. The regulation may produce a (psychological) reaction, undermining the very foundations of gender pay inequality (discrimination, segregation). This possibility would echo the findings by Holzer and Neumark (2000), who observe – using a U.S. survey of employers – an increase in training effort toward women and minorities in workplaces using Affirmative Action plan in hiring: while the regulation acts as a constraint on the hiring practices of employers, the latter have reacted by enhancing investments in minorities' human capital. In our setting, it would lead companies to reduce discrimination and/or segregation. In addition, a quota may induce companies to increase women remuneration, as firms will compete to attract the best talents (once a regulation forces them to hire women). On the other hand, the regulation may increase the gender gap, if companies treat differently female directors (and especially those appointed for the first time after the quota) as compared to the other groups of male directors – simply shifting discriminatory behavior *within* board. At this stage, the effect of a quota on gender pay gap remains an empirical question we intend to answer in this paper.

### **3. The characteristics of new female directors**

Our sample includes the companies belonging to the SBF120 in January 2011 – excluding 5 firms which have not been observable over the whole 2006-2014 period. Before 2010, the average share of female directors was around 9% (see Figure 1). In December 2010, this share

significantly increased, indicating that firms anticipated the success of the political debate (the regulation was formally adopted in January 2011). Since then, the proportion of female directors has steadily grown up. The sample average share of female directors went over 30% in 2014.

[INSERT FIGURE 1]

Table 1 gives information on the flows of directors on a yearly basis in our sampled firms. Interestingly, the number of appointments per year is rather stable over the period and roughly covers the number of leavers. We therefore observe a regular renewal of French boards. Similar to the Norwegian case (Bohren and Staubo 2016), there is no drastic increase in board size to reach the quota: the average board size grows up from 12.2 to 12.5 members between 2009 and 2014. Without surprise, the gender balance of new appointments has deeply changed over the period. In 2006-2009, approximately 1 female was appointed for 10 males. This strong disparity ended in 2010, with a number of appointed women only slightly inferior to the number of appointed men. Comparing the treatment of men and women recruited in the post-quota period is therefore highly interesting.

Directors can be distinguished depending on their date of entry on the French director labor market. We define “seasoned directors” as individuals sitting between 2006 and 2009 in at least one of the SBF120 firms. By contrast, “unseasoned directors” are individuals entering for the first time on the market since 2010, after the enactment of the gender quota.

[INSERT TABLE 1]

Table 1 shows that seasoned women represent a minor and decreasing part of female appointments made post-quota. Overall, only 36 seasoned female directors get at least a new board seat after the regulation. By contrast, 291 unseasoned females enter the pool of directors post-quota. This evidence indicates that the regulation has had far-reaching consequences on board functioning and corporate governance, as it has primarily induced the entry of new faces inside French boardrooms. In the rest of this paper, we are primarily interested by the characteristics and situation of these unseasoned female directors.

Ethics&Boards, an international board watching agency, provides us with comprehensive individual data on directors over the 2009-2011 period. Additional hand-collections from annual reports and internet researches enable us to expand the database to the 2006-2014 period. Both collections are methodically consistent. Our database initially contains 2,084 distinct directors (all individuals sitting in our 115 firms over the period) and 14,112 director-firm-year observations. As we are mainly interested in director fees, we exclude directors who do not directly receive fees such as executive directors (insiders) and State or employee representatives. Also, we exclude Chairmen of the board because, in many cases, the Chairman is also the CEO (50% of firm-year observations) and is not specifically



compensated for her job of director.<sup>6</sup> We eliminate directorships corresponding to individuals entering or exiting the boardroom in the course of the year, as they are not likely to be strongly involved in board functioning. We drop two firms that follow the S.E.C. regulation, and two companies that do not provide individual information on fees for the whole period. Finally, we trim director fees at the 1% and 99% levels. In the end, we have 7,904 individual-firm-year observations (directorships) for 111 distinct firms and 1,498 distinct directors.

We obtain the following information: gender, age of entry in the pool of SBF120 directors, current age, tenure, nationality, past professional experience and educational background, the status (insider, affiliated or independent, following the definition adopted by the French corporate governance Code), individual annual fees, board committee membership and chairing and the number of annual meetings for each committee. We use past or current professional experience to define expertise (see Dass et al. 2014). An individual is defined as a financial expert if he or she has or has had professional experience in the insurance or financial service industry. He or she is defined as an industry-expert if he or she has or has had professional experience in the industry (defined with a one-digit code) of the firm where he or she sits. Finally, we identify whether or not individuals have graduated from a so-called *Grande Ecole* (top French school). These *Grandes Ecoles* (*Polytechnique*, ENA, HEC, ESSEC, ESCP and IEP) play an important role in shaping directorate and top executives' networks in France (see Kramarz and Thesmar 2013; Nguyen 2012). Table 2 presents the descriptive statistics of the sample at the directorship level (triplet individual-firm-year).

[INSERT TABLE 2]

Table 3 provides information on the main characteristics of unseasoned female board members, as compared to the other three categories of directors (unseasoned males, seasoned females and seasoned males).

[INSERT TABLE 3]

Unseasoned female directors are significantly younger than both unseasoned and seasoned male directors when entering the pool (around 51 years old, against 53 for the two others). Interestingly, seasoned female directors entered the pool of French directors at a much younger age than all other categories, namely 47 on average. This observation suggests that women appointed before the quota had peculiar characteristics and talents explaining why they were able to break the glass ceiling in the 'dark age'.

Regarding nationality<sup>7</sup>, we see that the share of foreigners among unseasoned female directors is high, at 38%. This proportion is significantly larger than what we observe for seasoned directors (22% for seasoned males, and 15% for seasoned females). However, it is not significantly different from unseasoned males. We observe a similar pattern for the proportion

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<sup>6</sup> Note also that only 2% of Chairmen are women. It is an additional factor of gender inequality that we leave aside in this paper.

<sup>7</sup> For a discussion of the role of foreign directors, see Masulis, Wang and Xie (2012).

of unseasoned female directors graduated from *Grandes Ecoles*: it is significantly less important than what it is for seasoned males (32% against 46%), but there is no statistical difference when comparing with unseasoned males. This suggests that over the recent period, firms have tried to diversify their pool of directors, irrespective of the gender quota.

An important observation concerns independence. It has been promoted by the French corporate governance Code since the mid-1990s – way before the gender mix became a concern. Broadly defined as the absence of relationships with top management, it is usually perceived as a way to improve board ability to monitor corporate executives, i.e. to limit the extent of agency costs. Conventional wisdom and regulation therefore encourage companies to reserve the access of committees dedicated to monitoring to independent board members.<sup>8</sup> However, a number of articles have underlined that too much independence may be detrimental for board functioning and firm performance: it may limit firm-specific information sharing between insiders and independent board members, and also weaken the advisory function of the board (Adams and Ferreira 2007; Cavaco, Crifo, Rebérioux, Roudaut 2017). Considering first the pre-quota period, we see that the proportion of independent directors is very similar across gender (around 62% of directorships are independent). By contrast, there is a very large, significant difference in the share of independent directorships between unseasoned women and unseasoned men: directorships held by women arriving since 2010 are on average 75% independent, against 42% for men arrived in the same period.

Regarding industry expertise<sup>9</sup>, we observe the opposite pattern. It is not a surprise, as the definition of independence proposed by corporate governance codes in most jurisdictions does not favor industry-specific or firm-specific expertise. Only 38% of unseasoned female directorships bring industry-expertise – against 50% for unseasoned male directorships. Clearly, there is a supply shortage effect at stake here: hiring women means, to a large extent, hiring independent, non-industry expert board members.

Summing up, we have provided evidence that unseasoned female directors, massively appointed to comply with the gender quota, substantially differ from other group of directors. In particular, we have reported that they are more often foreigners, are younger, are more independent and less industry-expert than seasoned men. Comparing with unseasoned men – firstly appointed over the same period – differences are also observable albeit less important: new comer females are younger, more independent and less industry-expert. The difference between seasoned female and seasoned male directors is not so important, except for the age of entry. The next section investigates in more details the positions (in terms of committee membership) that have been allocated to female directors. Obviously, the fact that they present peculiar individual characteristics is not neutral regarding this allocation: being more independent, they are for instance *a priori* well-suited to endorse a monitoring role (rather

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<sup>8</sup> In the U.S.A., the Sarbanes Oxley Act, passed in 2002, requires the audit committee to be comprised solely of independent members. In France, the corporate governance Code indicates that at least 66% of the audit committee members should be independent, and a minimum of 50% for the compensation and the nominating committees.

<sup>9</sup> See e.g. Faleye, Hoitash and Hoitash (2017) for a discussion of industry expertise in corporate boards.

than an advising role), as member of the audit and/or the compensation-nominating committees. But more interestingly, we consider women access to positions *conditional* on their characteristics (in a non-linear regression setting analysis).

#### 4. The positions of new female directors

Virtually all companies in our sample have adopted a functional division of labor within board, through committees. On average, committees are composed of 3 individuals, and there are almost 3 committees per board (with a strong heterogeneity across firms: from 1 to 6 distinct committees). Just like in the U.S. or in the U.K., the audit committee, which supervises firm accounts and annual reports, exists in almost all companies. The same is true for compensation and/or nominating committees, responsible for designing CEO compensation and selecting the CEO. For 64% it is a unique structure, for the rest, there are two distinct committees. Audit, compensation and nominating committees are dedicated to the so-called “monitoring” function of the board. In addition, more and more committees are established inside the boardroom to provide strategic advices and outlooks on firm-specific issues – such as strategy, risk and technology management, corporate social responsibility, etc. These “advising” committees are quite heterogeneous across firms (in name and role).

In our empirical analysis, we make the distinction between three categories of committee: audit, compensation-nominating and advising. Compensation-nominating covers committees related to CEO compensation and nomination whatever the structure (unitary or dual). The “advising” category groups all committees which are not dedicated to monitoring functions.

Our empirical analysis models three types of dependent variables: (i) the total number of committee memberships per individual, (ii) the individual likelihood to be member of a particular committee, and (iii) the individual likelihood to chair a particular committee. The number of committees and the number of individuals per committee are quite heterogeneous across years and firms (see *supra*). Likewise, board gender diversity is not homogeneous across years (see figure 1) and companies. Accordingly, we cannot rule out the possibility than companies with particular characteristics (having for instance a large number of committees with a substantial number of individuals involved in each) are also the most progressive companies in term of board gender diversity. To avoid our estimates being driven by this assortative (matching) effect, we introduce in our regression firm fixed effects and year fixed effects.<sup>10</sup> Our estimates then indicate the average effect of various individual characteristics on committee access, as compared to other individuals *in the same company*. We test the following equation (with  $i$  for the individual,  $j$  for the firm and  $t$  for the year):

$$c_{i,j,t} = \beta_0 \cdot UF_i + \beta_1 \cdot SF_i + \beta_2 \cdot UM_i + X_{i,j,t} \cdot \alpha + \partial_j + \gamma_t + \varepsilon_{i,j,t} \quad (1)$$

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<sup>10</sup> We do not use firm-year fixed effects, so as to limit the number of regressors in non-linear (logit) models. The estimates, however, are consistent: the results are available upon request.

The dependent variable,  $c_{i,j,t}$ , varies across estimations. We first use the number of committees for director  $i$  in firm  $j$  at time  $t$ . We then use a dummy that takes value 1 if  $i$  is a member of the audit committee of firm  $j$  in year  $t$ , and a dummy that takes value 1 if  $i$  chairs the audit committee of  $j$  in  $t$ . We finally replace audit committee membership and chairing by compensation-nominating committee and by advising committee(s). On the right hand side, we have the following regressors:  $UF_i$  is a dummy that takes value 1 if  $i$  is an unseasoned female director,  $SF_i$  stands for seasoned female director, and  $UM_i$  for unseasoned male. The reference is therefore ‘seasoned male’, and in the following analysis, our coefficient of interest is  $\beta_0$  (associated with being an unseasoned women).  $X_{i,j,t}$  is a vector of individual characteristics.  $\partial_j$  is a firm identifier and  $\gamma_t$  is a year fixed effect.  $\varepsilon_{i,j,t}$  is the error term, clustered at the firm level. Results are displayed on Table 4.

In the first two columns, the dependent variable is the individual yearly number of committees (in a given firm). The variable is discrete, and ranges from 0 to 5 (with a mean of 1.13). Column 1 reports the results of a linear (OLS) model, while column 2 reports the results of a multinomial ordered logit model (as a robustness check). Estimates are consistent: controlling for individual characteristics, unseasoned female directors have significantly less committee memberships than seasoned males. It is not the case for unseasoned males. We then examine the probability to be member of the audit committee, and to chair this committee (logit regressions): results are displayed in columns 3 and 4, respectively.<sup>11</sup> While the probability to access the audit committee is not significantly different for women arriving after the quota (as compared to seasoned males), we observe that there is a negative (significant) conditional relation between being an unseasoned female and chairing the audit committee. For the compensation-nominating committee (columns 5 and 6), the pattern is reversed: the estimate for unseasoned female is negative and significant regarding the membership, and not different from 0 regarding the chair. Finally, columns 7 and 8 shows that women appointed after the quota are not specifically discriminated regarding the access to (or the chair of) advising committees. Conditional on their characteristics, males appointed for the first time post-quota support no discount in terms of committee access and chairing.

[INSERT TABLE 4]

Our empirical analysis is therefore indicative of a “positional” gender segregation – that echoes the occupational gender segregation commonly observed in the labor market (Ponthieux and Meurs 2015): even with similar observable characteristics, women and men do not occupy the same occupations or positions. More precisely, our estimates show the existence of barriers, within firms, limiting the access of unseasoned women to sub-committees, and more specifically to monitoring committees (audit and compensation-nominating). Nothing comparable is observable for men arriving at the same period. This underrepresentation of unseasoned female directors – conditional on their observable

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<sup>11</sup> The number of observations in column 3 is slightly less important than in columns 1 and 2 because two companies had no audit committee in the first half of the period. In column 4, the observations related to firms and years where the Chairman of the committee is absent of our base (because he or she is also the CEO or the Chairman of the board) are dropped. The same comments apply for columns 5 to 8.

attributes – in monitoring committees is likely to be a vector of gender inequality, as monitoring committees are usually considered (by codes and practitioners) as more important or strategic than advising committees. We consider this point in more detail in the next section.

Committee equations also reveal some important features concerning the access to sub-committees. Tenure and independence have similar effects: they both increase the number of committee memberships and the probability to access and to chair the two types of monitoring committee. It is hardly a surprise: these committees are usually dedicated to independent board members, whose monitoring ability is not weakened by conflict of interests. Also, the importance of these committees explains that tenure favors their access. By contrast, we observe that tenure has no effect on advising committee membership, and even increase the likelihood to chair such a committee. Finally, we see that financial expertise is positively and significantly related with audit committee membership and chairing, while industry-specific expertise is positively and significantly related with advising committee membership and chairing. These results are all fully consistent with current practices, conventional wisdom and codes' recommendations.

## **5. The remuneration of new female directors**

The previous section has provided evidence that women appointed following the gender quota have been somehow discriminated in terms of committee membership and chairing – even considering their peculiar individual characteristics. However, committees do not tell the whole story, i.e. do not fully capture the role played by individuals within board. By role, we mean the overall influence of a particular individual, its ability to set the tone at the top of large companies. This ability of course depends on committee assignment. But it also depends on at least two other elements: her attendance and her “function”. Someone with a low individual attendance is likely to have a limited influence in the decision-making process. It is important to investigate, as some studies have shown, on U.S. data, that gender can be correlated with attendance (Adams and Ferreira 2008 and 2009). In addition, it is now increasingly common to assign specific function – such as ‘lead director’ or vice-chairman – to certain board members supplying particular services.

In the French case, individual attendance and functions are difficult, if not impossible, to observe directly: while the former is not disclosed by companies, the latter are highly heterogeneous across firms (even in the terms used to denote them). But interestingly, the two are directly related to director pay. Regarding attendance, the French Code explicitly recommends companies to take into account this factor in individual fees. Likewise, most firms have additional fees for directors with specific functions. And finally, the vast majority of firms pays extra fees for committee membership and chairing, and rewards differently the participation to different committees.

In light of these elements, we contend that director fees can be used as a metric to evaluate director influence or role: in most companies, these fees are directly related to committees' assignment, attendance record and specific functions. In contrast with wages, fees are usually not the main source of revenues for individual receiving them (few board members are professional directors). But just like wages, fees reflect the value of a given individual for the company, i.e. the overall role endorsed by the person. As such, it is a primary indicator of within-board inequalities.

The objective of our empirical analysis is to examine the relationship between director fees on one side and individual characteristics (including gender) and positions on the other side. We introduce firm-year fixed effects in our regression: we therefore provide within-firm-year estimate of the gender fees gap. The equation we test is then the following:

$$y_{i,j,t} = \beta_0 \cdot UF_i + \beta_1 \cdot SF_i + \beta_2 \cdot UM_i + X_{i,j,t} \cdot \alpha + \mu_{j,t} + \varepsilon_{i,j,t} \quad (2)$$

where  $y_{i,j,t}$  is the logarithm of fees for director  $i$  in a firm  $j$  in year  $t$ ,  $UF_i$ ,  $SF_i$  and  $UM_i$  stand for unseasoned female, seasoned female and unseasoned male (respectively),  $X_{i,j,t}$  is a vector of individual controls and  $\mu_{j,t}$  are firm-year fixed effects. The error term ( $\varepsilon_{i,j,t}$ ) is clustered at the firm level.

We find (see Table 5, Column 1) that controlling for individual attributes, unseasoned female directors support an average discount in fees of 6.1%, as compared to male seasoned directors.<sup>12</sup> By contrast, we do not observe any significant fees gap for the other groups of directors (seasoned women and unseasoned males). Model 1 also allows to observe that independent directors have a premium of 15% relative to affiliated directors, whereas more experienced individuals, proxied by the age (0.3% by year), are better off than the others. The tenure is also strongly significant: each year is rewarded by a 1.1% increase in fees.

[INSERT TABLE 5]

We investigate in models 2 and 3 the contribution of committee membership and chairing to individual fees. We introduce a set of dummy variables that take value 1 if the person sits in the different committees and a set of dummy variables equals to 1 if the person chairs the different committees. In model 3, we replace the dummy variables for each committee membership by the number of annual meetings (to take into account the real workload associated with each committee).

In model 2, audit committee membership is related with a 28% positive difference (in individual within-firm fees) followed by compensation-nominating committee membership (21%) and advising committee membership (18%). This ranking is consistent with the relative importance given to the different committees in corporate governance debates and codes. The same pattern is observable for chairing (with a premium going from 18% for the audit

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<sup>12</sup> The results of fees equations are robust to the use of firm effects and year effects (instead of firm-year effects): for instance, the estimate on unseasoned female in model 1 is -0.058, with a standard error of 0.023.

committee to 14.6% for advising committees). Results in model 3 are largely consistent, showing the same ranking. Importantly, there is no significant difference between groups of directors when we take into account committees (models 2 and 3). It means that the differences in positions we have previously identified mainly explain the conditional fees gap supported by unseasoned female directors (-6.1%, in model 1). We have shown in the previous section that unseasoned women have significantly less monitoring committee memberships and chairing (than seasoned males), and the present regressions show that these positions are more rewarding than the others. As a consequence, positional segregation largely explains the within-firm gender fees gap. This also means that the different groups of directors do not exhibit specific attendance problems: otherwise, we would have observed a significant correlation between the different groups and fees even when controlling for positions.

## 6. Decomposing the within firm gender fees gap

Previous regressions have shown that a couple of individual attributes as well as positions determine individual fees. We also know that these characteristics and positions are not equally distributed across types of directors. It is likely to result in significant gender inequalities within boards – in the form of gender fees gap.

We propose now to examine in more detail this gender compensation gap, by measuring it and decomposing it into the various components identified so far (attributes and positions), before and after the quota. To do so, we rely on a simple Oaxaca-Blinder decomposition – which constitutes a standard tool of inequality measurement in labor economics, but is rather uncommon in the field of corporate governance and finance.

The Oaxaca-Blinder decomposition enables to measure the contribution of different factors to pay differences across groups (Oaxaca and Ransom 1999; Fortin, Lemieux and Firpo 2011). A simple linear regression of individual compensation (as performed in the previous section) with a female dummy considers, by construction, that the coefficients on observables (that is the return of characteristics and positions) are the same across gender. It is a restrictive assumption, the decomposition allows removing. It splits the remuneration gap into two components. The explained part is related to the observables (education, occupation, tenure, employers' characteristics, etc.). The rest is the unexplained part. It provides an estimation of the differential in return across gender of each observable. It is therefore usually considered as a measure of discrimination. Importantly however, the unexplained part is also driven by the omission of (unobservable) predictors.

Like before, we focus our attention on the gender fees gap *within* firm. To do so, we first regress individual fees on the whole set of firm-year fixed effects (plus a constant):  $\log(Fees_{i,j,t}) = \mu_{j,t} + \epsilon_{i,j,t}$ . We then keep the residuals  $R_{i,j,t} = \log(Fees_{i,j,t}) - \log(\widehat{Fees}_{i,j,t})$ , that is individual fees netted out firm-year effects. In a regression setting, these residuals can

be explained by our set of regressors  $X_{i,j,t}$  (individual characteristics and positions) separately for male ( $M$ ) and women ( $F$ ):

$$\begin{aligned} R_{i,j,t}^M &= X_{i,j,t}^M \cdot \alpha^M + \varepsilon_{i,j,t} \\ R_{i,j,t}^F &= X_{i,j,t}^F \cdot \alpha^F + \varepsilon_{i,j,t} \end{aligned}$$

The Oaxaca-Blinder decomposition then explains the difference between the expected value of  $R$  for males and females (i.e. the estimated within-firm gender fees gap) in two parts:

$$FeesGap = E[R_{i,j,t}^M] - E[R_{i,j,t}^F] = E[X_{i,j,t}^M] \alpha^M - E[X_{i,j,t}^F] \alpha^F = Q + U \quad (3)$$

The  $Q$ , or explained part, measures the differential (in within-firm fees) due to group differences in independent variables, taking as reference male coefficients ( $\alpha^M$ ). It provides an estimation of the gender fees gap due to the fact that female and male directors do not have the same individual attributes as well as committee membership and chairing. The  $U$ , or unexplained part, measures the differential due to unobservable mechanisms, such as individual attendance.

Table 6 provides first the Oaxaca-Blinder decomposition of the gender fees gap over the whole period. To ease the reading, we group together individual characteristics other than tenure, the unseasoned/seasoned dichotomy and the independence status. The line ‘characteristics’ therefore reports the cumulative effect of age, education, industry expertise, financial expertise and the number of other boards.

[INSERT TABLE 6]

The difference between the predicted man and woman fees is significant, around 4.8%. This difference is divided in 4.2% explained by the predictors and 0.6% unexplained. The unexplained part is insignificant, meaning that there is no pure discrimination or no effect of unobservable predictors. It confirms that attendance problem plays a minor role to account for pay differences across gender in the French case. Looking at the explained part of the gender gap, we observe the following effects. The fact that on average female directors are more independent than male directors is related to an increase of 0.1 percentage point (pp) of women fees relative to men fees. In the opposite, the fact that there is a larger share of unseasoned members among women as compared to men tends to increase the gender gap (0.7 pp). Also, the (lower) tenure of women contributes to increase the gender fees gap of 0.6 pp. Overall, slightly less than one half of the (explained) within-firm gender fees gap is related to the fact that female directors do not have on average the same characteristics or statuses than male directors (1.9% out of 4.2%).

Differences in committee membership and chairing are responsible for the rest of the explained gender fees gap (2.2%). The main drivers are the audit committee chairing (0.9 pp) and the compensation-nominating committee access. The Oaxaca-Blinder decomposition confirms that positional segregation (that is, access to the best, rewarding positions) is an important driver of the within-firm fees gap supported by women in French boards.



Table 6 then displays the result of a Oaxaca-Blinder decomposition performed on the years preceding the quotas (2006-2009, i.e. with only seasoned directors). We report the existence of a significant within-firm gender fees gap (3.3%), albeit less important than the gap measured on the whole period (4.8%). Once again, the unexplained part is non-significant. Regarding the explained part, we observe that individual statuses and characteristics do not play a significant role in the gender fees penalty – with the exception of the age. It is consistent with our previous findings: seasoned women, who succeeded in breaking the glass ceiling before the quota, presented a bundle of characteristics that were not really different from their male counterparts, except that they were much younger. Positions tell a different story: they explained much of the gender gap. Pre-quota, access and chairing of the audit committee and of the advising committee(s) strongly played against women.

Looking at post-quota period (2010-2014), the decomposition in Table 6 reports an increase in the gender fees gap that amounts to 5.5%. The unexplained part is still non-significant. The explained part is due for one third to individual characteristics (contributing to 1.5 pp), and for two thirds to positions (3.1 pp): once again, audit committee chair explains an important part of the difference in pay between men and women. But the access to the compensation-nominating committee becomes significant, while it did not play as a penalty factor in the pre-quota era. We therefore observe that the within-firm segregation process has slightly changed over time: it concerns all monitoring committees in the post-quota era, while there are no more barriers for women regarding advising committee membership and chairing. In a sense, difficulties to access the compensation-nominating committee have replaced difficulties to enter advising committees. Interestingly, the importance of the compensation-nominating committee has increased over the period, as the issue of CEO remuneration and performance becomes more and more sensitive in public debates: while the average total number of meetings of the audit committee has remained somehow stable from 2006 to 2014 (from 4.5 to 5.1), it has raised from 3.5 to 5.1 for the compensation/nominating committee. And as the latter gained in importance (as measured by the required effort), women have been progressively sidelined from this position.

## **7. Conclusion**

This paper has provided new evidence on board gender quota, focusing on gender inequalities within boards. We have investigated the way large French listed companies have coped with the regulation: who have they appointed? And more importantly, to do what? Answering these questions is a prerequisite to assess the overall efficiency of a quota in terms of corporate governance. In particular, it circumvents the difficulties inherent with a direct estimation of the relationship between board diversity and firm performance.

Indubitably, the gender quota has had a positive effect by opening the doors of boardrooms to new, unseasoned women. However, the latter face an inner glass ceiling regarding monitoring committees' access. The quota so far has not conducted to a thorough women empowerment:

gender inequality, as measured by a within-firm gender fees gap primarily driven by positional segregation, remains strong – and has become even stronger. Before the quota, female directors experienced a gender fees gap of 3.3%, mainly explained by the difficulties to enter audit and advising committees. On average, after the quota, we observe a gender gap of 5.5%, supported by a glass ceiling regarding monitoring committees. While we do not have evidence of pure discrimination, our results indicate that despite the quota, women are still not key players within French boards.

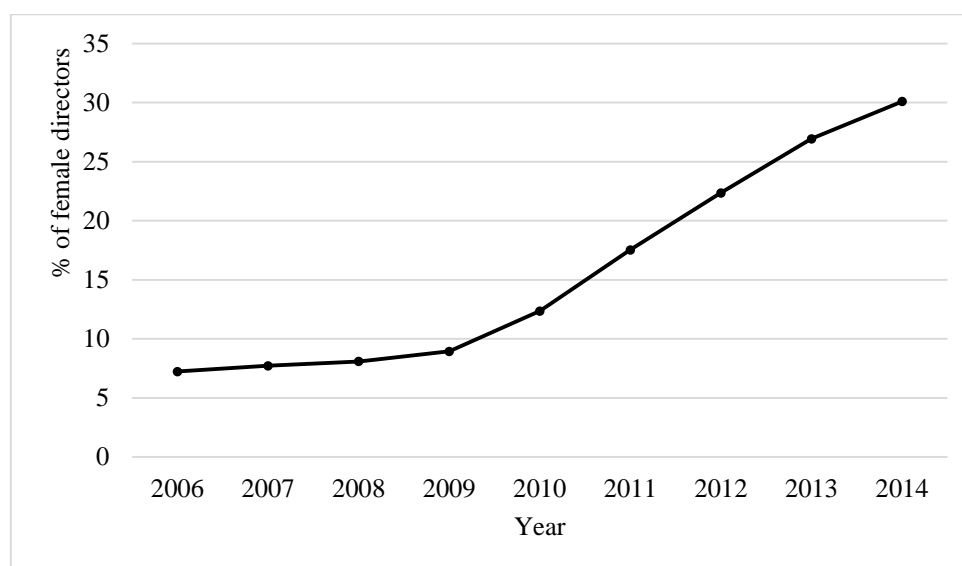
It could be a temporary issue if seasoned directors leave their positions in the next few years. In addition, tenure of unseasoned directors is mechanically bound to increase. Also, the pool of potential female candidates should grow up and offer new profiles. Anyhow, in the short run, our results indicate that it is dubious to observe major improvements in corporate governance quality following the implementation of the gender quota. All in all, the access of female directors to the audit and compensation-nominating committees, major organs in the decision-making process at the top of companies, should be a specific concern for practitioners, academics and politicians in the next few years.

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**Figure 1: average share (in %) of female directors (SBF120)****Table 1 : Director appointments and exits over the 2006-2014 period**

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
<b>Leavers</b>										
<b>Total</b>	-	179	142	179	138	149	183	177	150	1297
<b>New comers (Appointments)</b>										
<b>Total</b>	183	173	182	178	175	154	185	171	167	1568
<b>Male</b>	169	154	163	152	110	76	106	88	92	1110
<i>Unseasoned</i>	0	0	0	0	80	62	84	59	72	357
<i>Seasoned</i>	169	154	163	152	30	14	22	29	20	753
<b>Female</b>	14	19	19	26	65	78	79	83	75	458
<i>Unseasoned</i>	0	0	0	0	54	67	68	73	67	329
<i>Seasoned</i>	14	19	19	26	11	11	11	10	8	129

*Notes:* Leavers (resp. new comers) indicates the annual number of exits (resp. appointments) in our sample. Table 1 indicates the decomposition of appointments by gender and by types of directors (seasoned or unseasoned). *Lecture:* there have been 1,568 appointments over the 2006-2014 period, and 1,297 exits. In 2010, 175 directors have been appointed, while 138 left. Regarding appointments, 110 concerned men (80 unseasoned and 30 seasoned) and 65 women.

**Table 2: descriptive statistics**

Variables	Obs	Mean	Std. Dev.	Min	Max
<b>Individual characteristics</b>					
Female	7904	0.164	0.371	0	1
Unseasoned	7904	0.117	0.321	0	1
Seasoned Male	7904	0,783	0,413	0	1
Seasoned Female	7904	0.101	0.301	0	1
Unseasoned Female	7904	0.064	0.244	0	1
Unseasoned Male	7904	0.053	0.224	0	1
Tenure (years)	7904	7.409	6.128	2	64
Age (years)	7904	60.184	9.655	23	95
Age of entry (years)	7904	52.535	9.294	20	82
Foreigner	7904	0.233	0.422	0	1
<i>Grandes Ecoles</i>	7904	0.440	0.496	0	1
Number of (other) boards	7904	0.704	1.116	0	7
Independent	7904	0.626	0.484	0	1
Industry expertise	7904	0.463	0.499	0	1
Financial expertise	7904	0.596	0.491	0	1
<b>Committees</b>					
Number of committees	7904	1.129	0.841	0	5
Audit committee member	7904	0.379	0.485	0	1
Audit committee chair	7904	0.103	0.304	0	1
Total number of meetings for Audit committee	7904	1.950	2.873	0	18
Compensation-Nominating committee member	7904	0.401	0.490	0	1
Compensation-Nominating committee chair	7904	0.106	0.308	0	1
Total number of meetings for Compensation-Nominating committees	7904	1.797	2.817	0	23
Advising committee member	7904	0.281	0.450	0	1
Advising committee chair	7904	0.045	0.207	0	1
Total number of meetings for Advising committees	7904	1.133	2.306	0	23
<b>Fees</b>					
Annual fees (euros)	7904	43389.3	25304	4500	146400

*Notes:* This table provides descriptive statistics at the director-firm-year level. (a) Individual characteristics include gender, the seasoned/unseasoned status (an individual is defined as “seasoned” if he or she sits between 2006 and 2009 in at least one of the SBF120 firms), tenure, age and age of entry in the SBF120 director market, foreigner (a dummy that takes value 1 if the director is not French), *Grandes Ecoles* (a dummy that takes value 1 if the individual graduated from a French top school: Ecole Polytechnique, ENA, HEC, ESSEC, ESCP, and IEP), the number of other boards (in SBF120 companies) held by the individual in a given year, independent (a dummy variable that takes value 1 if the director is independent according to the AFEP/MEDEF definition), industry expertise (a dummy equals to 1 if the director has a professional experience in the company industry), and financial expertise (a dummy equals to 1 if the director has a professional experience in finance or insurance). (b) Committee variables include : (i) the total number of committees held by the person (in a given firm-year), (ii) three dummies that take value 1 if the individual is respectively member of the audit committee, member of the compensation-nominating committee and member of at least one of the ‘advising’ committees, (iii) three dummies that take value 1 if the person chairs respectively the audit committee, the compensation-nominating committee and one of the advising committees, and (iv), for each type of committees, the total number of meetings over the year. (c) Finally, the last row indicates the annual fees, in euros.

**Table 3: individual characteristics across gender**

<i>Characteristics</i>	<i>Unseasoned</i>		<i>Seasoned</i>		<i>Tests of average difference</i>			
	Female (1)	Male (2)	Female (3)	Male (4)	(1) – (2)	(1) – (3)	(1) – (4)	(3) – (4)
Tenure (years)	2.899	2.895	8.030	8.003	0.004 (0.07)	-5.131*** (-8.01)	-5.100*** (-25.25)	0.028 (0.04)
Age of entry (years)	51.427	53.519	47.572	53.196	-2.09** (-2.08)	3.85*** (2.77)	-1.77** (-2.42)	-5.62*** (-4.41)
Foreigner	0.383	0.357	0.147	0.223	0.026 (0.460)	0.24*** (4.31)	0.16*** (3.82)	-0.075* (-1.84)
<i>Grandes Ecoles</i>	0.325	0.307	0.416	0.461	0.018 (0.33)	-0.09 (-1.28)	-0.136*** (-3.10)	-0.045 (-0.72)
Nber of other boards	0.310	0.124	0.805	0.762	0.186** (2.51)	-0.496*** (-3.04)	-0.452*** (-5.36)	0.043 (0.26)
Independent	0.752	0.421	0.621	0.631	0.331*** (6.28)	0.131** (2.23)	0.121*** (3.34)	-0.009 (-0.18)
Industry expert	0.383	0.500	0.430	0.472	-0.117** (-2.10)	-0.047 (-0.82)	-0.089** (-2.17)	-0.042 (-0.90)
Financial expert	0.472	0.560	0.560	0.613	-0.087 (-1.50)	-0.086 (-1.25)	-0.141*** (-3.14)	-0.054 (-0.90)
Observations	504	420	795	6185				

*Notes:* (a) Averages of director characteristics in SBF120 companies over the 2006-2014 period. Observations are firm-year-director. (b) T-statistics for tests of average difference are indicated in parentheses. (c) Statistical significance at the 1%, 5%, and 10% levels is indicated by \*\*\*, \*\* and \*. *Lecture:* on average, unseasoned female directors are 75.2% independent, while unseasoned male directors are 42.1% independent. The difference (33.1) is significant at the 1% level (with a t-stat of 6.2).

**Table 4: committee membership and chairing**

Variables	(1) Number of committees	(2) Number of committees	(3) Audit committee	(4) Audit chair	(5) Comp/Nom committee	(6) Comp/Nom chair	(7) Advising committee	(8) Advising chair
Seasoned female	-0.053 (0.052)	-0.159 (0.143)	-0.174 (0.213)	-0.460 (0.420)	0.042 (0.191)	0.184 (0.332)	-0.022 (0.221)	-0.716* (0.391)
Unseasoned female	-0.161*** (0.054)	-0.398*** (0.148)	-0.149 (0.185)	-1.393*** (0.500)	-0.438** (0.201)	0.008 (0.343)	-0.086 (0.267)	-0.274 (0.417)
Unseasoned male	-0.014 (0.070)	0.067 (0.196)	-0.249 (0.221)	-0.634 (0.501)	-0.063 (0.242)	-0.185 (0.421)	0.246 (0.278)	-0.781 (0.487)
Tenure	0.028*** (0.008)	0.088*** (0.026)	0.047* (0.025)	0.128*** (0.039)	0.094*** (0.026)	0.179*** (0.050)	-0.032 (0.036)	-0.137*** (0.053)
Tenure (square)	-0.000** (0.000)	-0.002* (0.001)	-0.001 (0.001)	-0.003** (0.001)	-0.002** (0.001)	-0.004** (0.002)	0.001 (0.001)	0.004** (0.002)
Age	0.003 (0.002)	0.009 (0.007)	-0.009 (0.006)	0.017 (0.012)	0.025*** (0.007)	0.037*** (0.012)	0.002 (0.009)	0.024 (0.015)
Foreigner	-0.023 (0.052)	-0.074 (0.149)	-0.161 (0.163)	-0.243 (0.351)	0.009 (0.163)	0.276 (0.314)	-0.102 (0.189)	-0.251 (0.355)
Number other boards	0.025 (0.019)	0.077 (0.054)	-0.177*** (0.064)	-0.042 (0.093)	0.223*** (0.056)	0.321*** (0.078)	0.024 (0.075)	0.185* (0.105)
<i>Grandes Ecoles</i>	0.097** (0.046)	0.278** (0.126)	0.580*** (0.151)	0.672*** (0.236)	-0.229* (0.134)	0.262 (0.245)	0.101 (0.190)	0.013 (0.307)
Independent	0.337*** (0.046)	1.026*** (0.143)	0.945*** (0.118)	2.411*** (0.346)	0.798*** (0.128)	1.117*** (0.256)	-0.230 (0.192)	0.302 (0.365)
Industry expertise	-0.016 (0.042)	-0.040 (0.120)	-0.210* (0.116)	-0.070 (0.254)	-0.112 (0.133)	0.265 (0.216)	0.380*** (0.132)	0.505* (0.293)
Financial expertise	0.077* (0.040)	0.245** (0.111)	0.276** (0.129)	0.440* (0.232)	0.203 (0.141)	0.036 (0.199)	-0.243* (0.124)	-0.161 (0.314)
Observations	7,904	7,904	7,786	7,472	7,583	7,445	4,730	3,807
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Model	OLS	Ordered logistic	Logistic	Logistic	Logistic	Logistic	Logistic	Logistic

Notes: (a) Dependent variables: total number of committees (columns 1 and 2), audit committee membership (column 3) and chair (column 4), compensation/nominating committee membership (column 5) and chair (column 6), and advising committee membership (column 7) and chair (column 8). (b) Independent variables: gender interacted with the seasoned/unseasoned status, tenure, squared tenure, age, foreigner, number of other boards in the SBF120 index, *Grandes Ecoles*, independence, industry expertise and financial expertise. (c) Column 1 displays the results of an OLS regression, column 2 of a multinomial ordered logistic regression, and columns 3-8 of logistic regressions (as the dependent variables are dummies). (d) All regressions include firm fixed effects and year fixed effects. (e) Robust standard errors, clustered at the firm-level, in parentheses. (f) Significance level: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



**Table 5: the determinant of director fees**

Variables	(1) Log fees	(2) Log fees	(3) Log fees
Seasoned female	-0.005 (0.027)	0.012 (0.019)	0.014 (0.018)
Unseasoned female	-0.061*** (0.022)	-0.020 (0.019)	-0.007 (0.019)
Unseasoned male	-0.022 (0.027)	0.001 (0.021)	0.007 (0.022)
Tenure	0.011*** (0.004)	0.002 (0.003)	0.003 (0.003)
Tenure (square)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Age	0.003** (0.001)	0.001 (0.001)	0.002** (0.001)
Foreigner	-0.030 (0.026)	-0.013 (0.019)	-0.019 (0.020)
Number other boards	-0.004 (0.006)	-0.009* (0.005)	-0.007 (0.005)
<i>Grandes Ecoles</i>	0.018 (0.021)	-0.021 (0.015)	-0.023 (0.016)
Independent	0.153*** (0.027)	0.028 (0.021)	0.037* (0.021)
Industry expertise	0.002 (0.017)	0.005 (0.012)	0.001 (0.012)
Financial expertise	0.024 (0.018)	-0.003 (0.013)	-0.003 (0.012)
Audit committee		0.283*** (0.024)	
Audit meetings			0.049*** (0.004)
Audit Chair		0.182*** (0.023)	0.203*** (0.021)
Comp-Nominating committee		0.212*** (0.017)	
Comp-Nominating meetings			0.039*** (0.003)
Comp-Nominating chair		0.148*** (0.019)	0.166*** (0.019)
Advising committee		0.176*** (0.017)	
Advising meetings			0.038*** (0.003)
Advising chair		0.146*** (0.033)	0.138*** (0.032)
Observations	7,904	7,904	7,904
Firm-Year fixed effect	Yes	Yes	Yes
R2-adj	0.763	0.846	0.847

Notes: (a) Dependent variable: logarithm of director fees. (b) Independent variables: gender interacted with the seasoned/unseasoned status, tenure, squared tenure, age, foreigner, number of other boards in the SBF120 index, *Grandes Ecoles*, independence, industry expertise, financial expertise (in col. 1, 2 and 3), audit committee membership and chair, compensation/nominating committee membership and chair, advising committee membership and chair (in col. 2), and the annual number of meetings per committee type (col. 3). (c) All regressions include firm-year fixed effects. (d) Robust standard errors, clustered at the firm-level, in parentheses. (e) Significance level: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 6: Oaxaca-Blinder decomposition of the gender fees gap**

	Whole period			Before quota			After quota		
	Difference	Explained	Unexplained	Difference	Explained	Unexplained	Difference	Explained	Unexplained
Male	0.008** (0.004)			0.003 (0.005)			0.012** (0.005)		
Female	-0.040*** (0.008)			-0.030* (0.016)			-0.043*** (0.009)		
Difference	<b>0.048***</b> (0.009)	0.042*** (0.006)	0.006 (0.008)	<b>0.033*</b> (0.017)	0.042*** (0.010)	-0.009 (0.015)	<b>0.055***</b> (0.010)	0.047*** (0.008)	0.009 (0.010)
Unseasoned		0.007** (0.003)	0.010* (0.005)		- -	- -		0.004 (0.004)	0.017* (0.009)
Independent		-0.001** (0.001)	0.008 (0.013)		0.002* (0.001)	-0.022 (0.022)		-0.002* (0.001)	0.014 (0.016)
Tenure		0.006*** (0.001)	0.030** (0.014)		-0.001 (0.004)	0.007 (0.031)		0.006* (0.003)	0.038** (0.017)
Characteristics		0.007*** (0.002)	0.091* (0.052)		0.006 (0.004)	0.071 (0.124)		0.007** (0.003)	0.079 (0.060)
Audit		0.006* (0.003)	0.013* (0.007)		0.016** (0.007)	0.012 (0.014)		0.006 (0.004)	0.008 (0.008)
Audit chair		0.009*** (0.001)	0.000 (0.002)		0.009*** (0.002)	-0.001 (0.004)		0.011*** (0.002)	0.001 (0.002)
Comp-Nominating		0.006*** (0.002)	-0.002 (0.006)		0.001 (0.003)	-0.013 (0.012)		0.012*** (0.003)	0.006 (0.007)
Comp-Nom chair		0.002 (0.001)	-0.005* (0.003)		0.002 (0.003)	0.002 (0.004)		0.002 (0.002)	-0.007** (0.003)
Advising		-0.001 (0.001)	0.012*** (0.005)		0.004** (0.002)	0.002 (0.007)		0.000 (0.001)	0.016*** (0.006)
Advising chair		0.000 (0.001)	-0.001 (0.002)		0.004*** (0.001)	0.002 (0.001)		0.000 (0.001)	-0.002 (0.002)
Observations	7,904	7,904	7,904	3,345	3,345	3,345	4,559	4,559	4,559
Number of firm-years	958	958	958	414	414	414	544	544	544

Notes: Oaxaca-Blinder twofold decomposition. (a) Dependent variable: firm-year-adjusted director fees. (b) Independent variables: unseasoned, independence, tenure (groups together tenure and squared tenure), individual characteristics (group together age, foreigner, number of other boards in the SBF120 index, *Grandes Ecoles*, industry expertise and financial expertise), audit committee membership and chair, compensation/nominating committee membership and chair, advising committee membership and chair. (c) Coefficients for males are taken as reference. (d) Sample: the first decomposition is performed on all observation (Columns 1-3), the second is restricted to pre-quota observations (Columns 4-6), and the third is restricted to post-quota observations (Columns 7-9). (e) Standard errors are clustered at the firm level. (f) Significance level: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1