

**Monitoring by Busy and Overlap Directors: An Examination of executive remuneration and financial reporting quality**

**Capacidad supervisora de los consejeros ocupados y solapados: Un análisis de la remuneración ejecutiva y la calidad de la información financiera.**

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# Monitoring by Busy and Overlap Directors: An Examination of executive remuneration and financial reporting quality

## Abstract

We analyse the effect of multiple board directorships (busy directors) and multiple committee memberships of a board (overlap directors) on the three board supervisory outcomes: executive remuneration, external auditor opinion and earnings management. Using a panel of 122 Spanish non-financial listed firms over 2004-2011, we find that firms with busy directors offer low executive remuneration and present a low probability of a qualified audit opinion. Our results also suggest that firms with overlap directors exhibit a higher probability of receiving a qualified audit opinion. Additionally, we find evidence that the over commitment effects of busy and overlap directors are more evident for large firms. Overall, our results suggest that busy (overlap) directors are beneficial (detrimental) to the monitoring capability of the board in the Spanish context.

[Words count: 126]

*JEL classification:* G30, G32, G34, G38

*Keywords:* Board; Executive remuneration; Busy directors; Overlap directors; Audit opinion; earnings management.

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4 **1. Introduction**  
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7           The recent financial crisis and its connection with the lack of accountability of corporate  
8 directors for allowing their institutions to take excessive risks raise a world-wide debate on the  
9 directors' obligations and its enforceability. The strengthening of the regulatory framework could  
10 discourage prospective directors from taking up a directorship due to the perceived personal risk  
11 involved. The concern about being able to fulfil directors' duties diligently puts the focus on the  
12 topic of overboarded directors. Not only additional directorships bring extra work load to board  
13 members, board committees' memberships also imply extended duties to be fulfilled. Consequently,  
14 director's commitments within the firm and out of the firm might affect their supervisory  
15 performance. Are directors with multiple board seats and/or multiple committees memberships able  
16 to duly perform their supervisory responsibilities or conversely are they overcommitted and  
17 therefore prone to be sued for neglecting their duties?  
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33           Contrary to the view of the board of directors as a “managerial rubberstamp”, boards have  
34 evolved becoming active and independent monitors (MacAvoy and Millstein, 1999) which spend  
35 most of their time monitoring management (Schwartz and Weisbach, 2013). The supervisory duties  
36 of board directors include, among others, designing and approving top managers' compensation,  
37 hiring and firing them, certifying the quality of financial reports and consulting independent external  
38 auditor. Given the diversity of these tasks, the board delegates these tasks mainly to three specific  
39 committees: audit, compensation and nomination committees. The recent local and international  
40 regulations stress not only the need to form independent boards but also to create independent  
41 board committees. For instance, according to the Unified Code of Recommendations for the Good  
42 Governance (2006) a Spanish listed company should have a majority of independent directors in its  
43 board; have remuneration, nomination and audit committees entirely composed of non-executive  
44 directors; being the last two dominated by independent directors.  
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4 With these new regulatory and listing requirements, and given limited supply of directors, the  
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6 demand for board directors is greater than ever before. As a result, independent directors are now  
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8 more likely to serve on multiple boards and also on multiple committees in a board<sup>1</sup>. Besides,  
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10 directors are spending more time to perform their increased duties due to new regulations, intense  
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12 public scrutiny and the possibility of being sued. According to the 2013 survey conducted by the  
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14 Consulting Firm Spencer Stuart, a director of a Spanish public company spends on average 113  
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16 hours preparing or assisting board and committee meetings, which is clearly above the 83 hours  
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18 reported in their survey of 2006. Following this increased work commitments, both national codes  
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20 of good governance<sup>2</sup> and the board standards of individual companies<sup>3</sup> are now constraining the  
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22 number of external directorships of their board members. Although Spanish listed firms have to  
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24 inform of their director's external board seats, the Spanish Unified code (2006) code does not limit  
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26 external directorships.  
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33 There are different theoretical approaches that predict opposite relations between directors'  
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35 multiple board membership ('busyness') and their attitudes towards their monitoring duties (Levit  
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37 and Malenko, 2013) and the empirical evidence on this matter remains inconclusive. For instance,  
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39 Ferris, Jagannathan and Pritchard (2003) report that busy directors are value enhancing while Fich  
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41 and Shivdasani (2006) identify that the presence of busy directors is detrimental to the firm value.  
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43 Lopez-Iturriaga and Morrós (2014) find for the Spanish market that the presence of busy directors is  
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45 initially beneficial for firms' performance, but is detrimental beyond a certain threshold point.  
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54 <sup>1</sup> See Cashman, Gillan, and Jun (2012) and Kiel and Nicholson (2006) for evidence on the presence of busy directors on  
55 US and Australian listed firms respectively.

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57 <sup>2</sup> For instance, limitations established by the codes of good governance and governmental recommendations in the UK,  
58 Belgium, France, Denmark, The Netherlands, China, Pakistan and India among others.

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60 <sup>3</sup> According to the 2013 Spencer Stuart US Board Index 76% of S&P 500 companies limit other corporate directorships  
61 for their board members, while this percentage was only 27% in 2006.  
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4 In this paper, based on a sample of 807 firm-year observations corresponding to Spanish  
5 non financial listed companies over 2004-2011, we examine how and to what extent multiple board  
6 directorships (busy directors) and multiple committees' memberships (overlap directors) relate to  
7 three board's supervisory decision outcomes: CEO remuneration, external auditor opinion, earnings  
8 management. Our main results suggest that firms with busy directors decrease executive  
9 remuneration and the probability of qualified audit opinion. This relation demonstrates that busy  
10 directors are effective monitors of managers. Our results also inform that firms with overlap  
11 directors endure a higher probability of receiving a qualified audit opinion. Similarly, we find that  
12 overlap directors increase earnings management. Further analysis reveal that the negative (positive)  
13 supervisory outcomes of overlap (busy) directors is more significant for large firms compared to  
14 small firms. We interpret this result in the light of the more intense need for managerial control in  
15 large firms, which are more complex than small firms and present a more clear separation between  
16 the owners and the managers who run the company. Overall, our results suggest that busy directors  
17 improve boards monitoring abilities while overlap directors deteriorate boards monitoring  
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40 Our study contributes to the literature on busy and overlap directors in two main ways. This  
41 is the first study on the Spanish market to evaluate the monitoring capabilities of busy and overlap  
42 directors in relation to a complete set of decision outcomes representative of the supervisory activity  
43 of the board, executive remuneration, external auditor opinion and earnings management. We obtain  
44 consistent evidence on the effect of busy and overlap directors on these three decision outcomes.  
45 Prior studies only consider a sub-set of our monitoring outcomes and hence provide a partial vision  
46 of the supervisory capabilities of busy and overlap directors. Moreover, to our knowledge it is the  
47 first study in the Spanish market to explore the effect of overlap directors.

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4 Previous studies (as detail in Section 2) mainly focus on the US market. Spain provides a  
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6 distinctive framework to evaluate the monitoring performance of busy and overlap directors. When  
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8 compared to the US, Spain features a relatively weak protection of minority shareholders and high  
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10 ownership concentration, that to a certain extent, could act as a substitute to the internal control  
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12 exerted by the board. These characteristics are common to most continental European countries  
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14 which makes that our results could be generalized to these European economics.  
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19 Moreover, Spain could be perceived as a relatively free environment compared to the US.  
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21 For instance, NYSE and NASDAQ listing rules introduced after the passing of Sarbanes Oxley Act  
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23 of 2002, require listed firms to establish completely independent remuneration, audit and  
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25 nomination committees. However, Spanish listed firms are subject to only a “comply or explain”  
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27 regime. Therefore, perhaps the motivations of Spanish firms to hire busy independent directors or  
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29 to involve them in various committees differ from those of the US firms. Besides,  
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34 The rest of the paper is organized as follows. In Section 2, we review prior literature and set  
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36 the hypothesis to be tested. In Section 3 we describe our sample and empirical framework. Section 4  
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38 discusses the results related to the relevance of busy and overlap directors to CEO remuneration,  
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40 audit opinion, audit fees and CEO turnover-performance sensitivity. Section 5 presents the results  
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42 for few of our robust analysis while section 6 concludes.  
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## 49 **2. Literature review and hypotheses development**

### 50 *2.1 Busy directors*

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53 Prior studies on whether busy directors (independent directors holding multiple board  
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55 directorships) are effective monitors are mixed. Multiple directorships are viewed both as a positive  
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57 indicator of the director’s reputation (Fama and Jensen, 1983) and also as a negative sign of over  
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4 commitment and lack of time to diligently perform their fiduciary duties. These two views on the  
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6 effect of directors' 'busyness' are not mutually exclusive. Although holding multiple directorships  
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8 can be a sign of an experienced and knowledgeable board member, busy directors may not be able  
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10 to fully use these skills, due to over commitment.  
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14 Fama and Jensen (1983) note that directors who have built a strong reputation as monitors  
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16 are rewarded by the directorial labour market with additional board appointments and Mobbs (2013)  
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18 conveys that the probability of becoming a CEO increases with additional directorships. In addition,  
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20 Fich and Shivdasani (2007) find that outside directors of firms sued for financial fraud experience a  
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22 reduction in the number of directorships held and Ferris *et al.* (2003) present a positive relationship  
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24 between past performance of the firm at which the director has been serving and the number of  
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26 directorships held afterwards. These authors find also evidence of a positive market reaction to the  
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28 appointment of outside busy directors, which signals superior monitoring ability of highly reputed  
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30 directors with multiple board seats. Accordingly, several studies show that directors with multiple  
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32 board memberships are beneficial for firms (e.g., Gilson, 1990; Brickley, Linck, and Coles, 1999;  
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34 Ferris, Jagannathan and Pritchard 2003, Harris and Shimizu, 2004; Masulis and Mobbs, 2011).  
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41 However, the contribution of the outside directors to the supervisory performance of the  
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43 board not only depends on their skills, but also on the time availability to perform their duties and  
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45 the time devoted to the preparation of the board meetings (Fahlenbrach, Low and Stulz, 2010). A  
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47 few studies also note the negative effects of over commitment from multiple directorships (e.g., Fich  
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49 and Shivdasani, 2006; Jackling and Johl, 2009; Jiraporn, Davidson, DaDalt and Ning, 2009). For  
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51 example, Jiraporn *et al.* (2009) report a higher tendency of busy directors to be absent from board  
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53 meetings. Similarly, Fich and Shivdasani (2006) note that firms with busy directors have lower  
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55 market to book ratios and their executive turnover decisions are less sensitive to firm's performance.  
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60 Jackling and Johl, (2009) report evidence of a negative effect of busy outside directors on firm's  
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4 performance. In addition, Core, Holthausen and Larcker (1999) identify that firms with busy  
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6 directors tend to award higher remunerations to their CEOs and Ahn, Jiraporn and Kim (2010)  
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8 observe negative market reactions toward acquisitions by firms with busy boards. Finally, Faleye,  
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10 Hoitash and Hoitash (2011) find evidence that firms with busy directors overpay their CEOs and  
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12 involve in earnings management.  
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17 Given theoretical tensions and mixed empirical evidence, it remains an empirical question as to  
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19 whether busy directors improve or deteriorate the quality of the boards' supervision. Therefore, we  
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21 have our expectations open in relation to busy directors and supervisory outcomes and formulated  
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23 our hypothesis related to busy directors in null:  
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27 **H1:** There is no relation between busy directors and firms' monitoring outcomes (i.e., busy  
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29 directors do not affect CEO remuneration, the probability of qualified audit opinion,  
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31 earnings management, and CEO turnover-performance sensitivity).  
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## 34 35 36 37 2.2 *Overlap directors* 38

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40 Independent directors on the audit or remuneration committees possess specific skills and  
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42 expertise (e.g., financial expertise, familiarity with regulations and accounting standards) as  
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44 prerequisites for these positions. When these independent directors serve on multiple board  
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46 committees, particularly audit and remuneration committees, they are seen as either superior or  
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48 worse monitors. On the one hand, overlap membership facilitates 'knowledge sharing,' which is  
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50 useful in the fulfilment of their supervisory duties. Hölmstrom's (1979) theoretical model suggests  
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52 that any additional information about an agent's actions or the state of nature would benefit the  
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54 principal in designing an appropriate incentive structure to mitigate the principal-agent moral hazard  
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56 problem. On the other hand, the monitoring effectiveness of overlap directors could be hindered by  
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4 over-commitment and lack of time to perform their duties in each committee (Laux and Laux,  
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7 2009).

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10 The limited studies on the effectiveness of overlap directors to monitor managers provide  
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12 mix evidence. For instance, Faleye et al. (2011) identify that although boards' advisory capabilities  
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14 suffer with overlap directors, board monitoring abilities improve, as reflected in greater CEO  
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16 turnover performance sensitivity, lower CEO excess total remuneration and reduced earnings  
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18 management. Nonetheless, Liao and Hsu (2013) note a decreasing sensitivity of CEO's cash  
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20 remuneration to firm's performance in the presence of overlap committee members.  
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24 Similar to busy directors, the above discussion suggest the existence of both benefits of  
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26 information-sharing and over-commitment costs related to the overlap directors. Therefore, we have  
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28 kept our expectations open and have expressed the following hypothesis related to overlap directors  
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30 in null:  
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34 **H2:** There is no relation between overlap directors and firms' monitoring outcomes (i.e.,  
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36 overlap directors do not affect CEO remuneration, the probability of qualified audit opinion,  
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38 earnings management, and CEO turnover-performance sensitivity).  
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### 45 **3. Data and empirical framework**

#### 46 *3.1 Data*

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49 Our sample comprises 807 firm-year observations corresponding to 122 non-financial  
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51 companies listed on the Continuous Market over the period 2004-2011. The companies analysed are  
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53 those which declared having an audit and a remuneration committee and for which all the  
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55 information necessary for constructing the variables used in the study was available.  
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4 All data relating to the corporate governance structure of the firms, that is, the structure of  
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6 the board and its committees and the ownership structure of the firms are obtained from the official  
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8 records of the “Comisión Nacional del Mercado de Valores” (CNMV) and the annual corporate  
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10 governance reports that companies have been obliged to publish since 2003. Details on executive  
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12 remuneration, and the dual position as CEO and chair of the board have been also consulted in the  
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14 same source. The accounting data which is used to determine the size of the company, its  
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16 profitability and leverage come from the records of the CNMV and SABI databases. Finally, the  
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18 share prices, necessary to estimate market risk and returns are obtained from the records of the  
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20 Madrid Stock Exchange.  
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### 29 3.2 *Measures of outcome variables (dependent variables)*

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31 We analyse the relevance of busy and overlap directors on three different firms’ decisions  
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33 outcomes: CEO’s remuneration, audit opinion and earnings management. The first dependent  
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35 variable is the natural logarithm of the average executive directors remuneration (EXECPAY). Total  
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37 remuneration includes all components of the board executives remuneration: fixed and variable,  
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39 short term and long term independently of its nature (cash, non-pecuniary, equity or option based).  
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41 All the remuneration variables were deflated using the consumer price index published by the  
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43 “Instituto Nacional de Estadística” (INE) and measured in 2004 Euros. We expect that firms with  
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45 weak monitoring would award higher remunerations to their executives (Core et al., 1999). In case  
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47 busy or overlap directors are overcommitted we would expect a positive relation between the  
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49 proportion of such directors and executive remuneration. On the contrary, if reputational effects  
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51 from busy directors and knowledge sharing effects from overlap directors dominate over  
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53 commitment effects, we would expect a negative relation between the proportion busy and overlap  
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55 directors and executive remuneration.  
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4 Our second monitoring outcome variable is audit opinion. We use a binary variable  
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6 (QUALIFIED) that takes the value of one if the external auditor issues a qualified audit opinion and  
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8 zero otherwise. We expect that the quality of financial information issued by the company improves  
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10 with strong board monitoring, and hence firms with strong board monitoring are less likely to  
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12 receive qualified audit opinions. Thus, we expect that in case of being over committed, busy and  
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14 overlap directors increase the probability of a qualified audit opinion and well reputed busy directors  
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16 and knowledgeable overlap director decrease the probability of such event.  
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21 Our third monitoring outcome variable is earnings management. Following prior studies  
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23 (Defond and Jiambalvo, 1994, Rees Gill and Gore, 1996; Teoh Welch and Wong, 1998; Klein, 2002  
24  
25 and Koh, 2003), our proxy of earnings management is the absolute value of the discretionary current  
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27 accruals (ABSDISCACCRUAL). We follow Dechow, Sloan & Sweeney (1995) extension of the  
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29 cross-sectional Jones (1991) model to compute the discretionary current accruals. The detail on the  
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31 computation of discretionary accruals is in Appendix A. We expect a higher earnings management in  
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33 the presence of weak monitoring of managers. Thus, if busy or overlap directors are inefficient, we  
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35 would expect their proportion to be positively related to both measures of earnings management.  
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37 Conversely, if busy and overlap directors are strong managerial controls, we would expect their  
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39 proportion to be negatively related to our proxies of earnings management.  
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### 49 3.3 *Measures of explanatory variables*

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51 Our two main proxies that capture board monitoring strength are busy directors (BUSY) and  
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53 board committee overlap (OVERLAP). Following Core *et al.* (1999), Ferris *et al.* (2003) and Fich  
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55 and Shivdasani (2006), BUSY is measured as the number of independent directors who hold three  
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57 or more board appointments scaled by the total number of independent directors on the board.  
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4 Board committee overlap (OVERLAP) is based on the number of independent directors serving on  
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6 both remuneration and audit committees scaled by the total independent directors on the board.  
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10 Following prior studies, we also include a set of control variables for ownership, board  
11 structure, executive power and other firm characteristics considered to influence firm relevant  
12 decision outcomes. Particularly, we control the possible effects of the firm's ownership structure by  
13 including the percentage of ownership of the largest shareholder (LARGE1). Two commonly used  
14 proxies for board structure are board size (BOARDSIZE) and the proportion of independent  
15 directors (INDEPENDENT). BOARDSIZE is the natural logarithm of the number of board  
16 directors who serve on the board over a one-year period, while INDEPENDENT is the number of  
17 independent directors as a percentage of board size. Executive power is proxied by two variables:  
18 ownership (EXECOWN), and CEO-Chair (CEOCHAIR). EXECOWN is the percentage of  
19 outstanding firm's shares held by the board executives. CEOCHAIR is a dummy variable that equals  
20 1 if the CEO is also the board chair and zero otherwise.  
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36 Four other firm specific controls include firm size (SIZE = natural logarithm of total assets  
37 measured in thousands of constant 2004 Euros), profitability (ROA = the ratio of earnings before  
38 interest payments and income taxes to total assets), leverage (LEVERAGE = total liabilities over  
39 total assets ratio) and risk (RISK = the variance of the firm's daily stock market returns over a one  
40 year period). All the remuneration variables and the value of total assets are deflated using the  
41 consumer price index published by the INE. Table I presents the definitions of our variables used in  
42 this study.  
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### 3.4 Empirical framework

The following regression equation is used to empirically test our hypotheses related to three alternative outcomes: board executives' remuneration (EXECPAY), audit opinion (QUALIFIED) and earnings management (ABSDISCACCRUAL):

$$(\text{EXECPAY} \mid \text{QUALIFIED} \mid \text{ABSDISCACCRUAL})_{i,t} = \begin{cases} \alpha_j + \beta_1 (\text{BUSY})_{i,t} + \delta_1 (\text{OVERLAP})_{i,t} + \sum_{i=1}^{i=9} \mu_i (\text{CONTROLS})_{i,t} \\ + \sum_{j=1}^{2004-2011} \omega_j (\text{YEAR})_j + \sum_{k=1}^{k=12} \psi_k (\text{INDUSTRY})_k + \varepsilon_{i,t} \end{cases} \quad (1)$$

where subscript  $i$  denotes individual firms and subscript  $t$  represents the time period ( $t = 2004, 2005, \dots, 2011$ ). The coefficients  $\alpha, \beta, \delta, \mu, \omega$  and  $\psi$  are the parameters to be estimated, while  $\varepsilon$  is a disturbance term. Our key proxies of board/committee monitoring strength are *BUSY* and *OVERLAP*. *CONTROLS* comprise a total of nine variables, as discussed in subsection 3.3. In addition, year dummies (YEAR) and two digit SIC industry dummies (INDUSTRY) are used to control for time fixed-effects and industry fixed-effects, respectively. Following Petersen (2009), in our pooled ordinary least squares estimation of equation (1), standard errors are adjusted for heteroscedasticity and serial correlation by clustering at the firm level. To remove some concerns related to endogeneity problem in busy and overlap directors, following Falaye et al. (2011), we have also considered historic (lagged) values of our main variables – BUSY and OVERLAP and fixed effects panel estimations.

### 3.5 Descriptive statistics and correlation matrix

The descriptive statistics of the variables used are presented in Table II and Table III shows their Pearson coefficients of correlation.

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7           The average annual total remuneration per executive director is 787.741 euros. This value  
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9 results slightly lower than the average 824,310 euro reported by Crespi and Pascual-Fuster (2008) for  
10 a set of firms listed in the Spanish Electronic Market in the period 2004-2006, being this difference  
11 possible due to the use in our study of constant 2004 values and also due to the longer period  
12 selected, which includes a significant number of post-financial crisis years. Approximately 14.96% of  
13 our firm-year observations include a qualified audit report. This figure is clearly below the 37%  
14 reported by Ruiz Barbadillo, Gomez-Aguilar and Biedma-Lopez (2006). However, we observe a  
15 steady decrease in the issuance of qualified audit reports specially during the period 2000-2011 and  
16 Barbadillo et al. (2006) sample corresponds to the 1991-2001 period, while ours covers from 2004 to  
17 2011. The mean percentage of busy board members (BUSY) is 8.8% and stable between 7% and 9%  
18 over the sample period. This value is nearly half of the 16% as reported by Cashman et al. (2012) for  
19 their US sample, which suggests that comparatively directors of Spanish firms are less ‘busy’. The  
20 mean proportion of independent directors with a common membership of both audit and  
21 remuneration committees (OVERLAP) is 17.77% which increases from a low 9% in 2004 to a high  
22 26% in 2011. This trend suggests that with growing demand for directors’ commitments along with  
23 the regulatory requisites of independent committees, independent directors are increasingly engaged  
24 in various board committees in Spain.  
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47           For control variables, the mean of the largest shareholding (LARGE1) is 32.21% which is  
48 relatively high when compared to the 22.3% mean shareholdings of the top five institutional  
49 investors as reported by Hartzell and Starks (2003) for the US market. The mean size of the board is  
50 5.96. The mean board executives’ shareholding is 13.57%, ranging from a minimum of 0% to a  
51 maximum of 91.31% which, shows that in the case of Spanish firms the separation between  
52 ownership and control is not as prevalent as in the US market. This situation would imply for some  
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4 firms a shift from type I agency conflicts between shareholders and managers to type II agency  
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6 conflicts between minority and majority shareholders. To conserve space, we omit discussion of the  
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8 descriptive statistics of our remaining control variables.  
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12 Insert Table III about here  
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14 In Table III, we observe a significant negative correlation between busy directors and our  
15  
16 proxy of earnings management. We also observe that overlap directors are negatively correlated with  
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18 executive remuneration and positively correlated with earnings management. Thus, our univariate  
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20 statistics provide some initial support to the reputational effect of busy directors, as far as financial  
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22 information reliability is concerned. However, we have mixed results with overlap directors, as we  
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24 observe that they contribute to a reduction in executive remuneration yet they are associated with  
25  
26 greater earnings management.  
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#### 31 32 33 34 **4. Empirical results** 35

##### 36 *4.1 Results related to board executives remuneration* 37

38 Table IV shows the results of pooled OLS and panel fixed and random effects estimations  
39  
40 of regression equation (1) in relation to examining the effects of busy and overlap independent  
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42 directors on executive pay (EXECPAY).  
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46 Insert Table IV about here  
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48 With regard to busy directors, the coefficient on busy directors is significantly negative  
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50 across all columns, i.e., for our three alternative estimations. This result rejects our null hypothesis  
51  
52 H1 but strongly suggest a negative influence of busy directors on board executives remuneration  
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54 Therefore, we observe the existence of a reputational effect linked to busy independent directors  
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56 who appear to exert an efficient supervision at least in establishing executive pay. The strong  
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4 supervisory performance of busy directors, is consistent with the evidence by Ferris et al. (2003) and  
5  
6 Cashman et al. (2012) for US listed firms.  
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10 With regard to overlap directors, the coefficient on the overlap directors variable is negative  
11  
12 across all columns although not statistically significant. We, therefore, cannot reject our null  
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14 hypothesis H2 that overlap directors do not affect boards control performance, at least in what  
15  
16 relates to executive pay setting.  
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20 Our results for control variables provide some useful insights. For instance, the significant  
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22 positive coefficient on large shareholders ownership stake suggests that large stockholders might  
23  
24 collude with executive directors. This result point to the possible existence of an agency problem  
25  
26 between large and small shareholders. We also notice that the proportion of independent directors is  
27  
28 positively related to executive pay. This suggests that independent directors are ineffective monitors  
29  
30 as they contribute to high managerial remuneration. The statistically significant negative coefficient  
31  
32 on executive directors' ownership indicates that firms whose executives hold large stakes of their  
33  
34 firm's stock, are more conservative in setting managerial pay. Similar to many other studies on  
35  
36 executive pay (Carpenter and Sanders, 2002; Indjejikian and Nanda, 2002), we observe a positive and  
37  
38 statistically significant coefficient on firm size.  
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#### 46 4.2 *Results related to audit opinion*

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48 Table V presents the results of equation (1) in relation to the effect of busy and overlap  
49  
50 directors on audit opinion. Our results indicate the existence of a negative and a positive influence  
51  
52 of busy and overlap directors respectively on the probability of the firm receiving a qualified audit  
53  
54 report. The statistical significance of the coefficients on OVERLAP hold independently of the use  
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56 of OLS, or panel random or fixed effects estimations however BUSY is statistically significant only  
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4 in panel FFEE and RREE estimations. These results for audit opinion do not support our null  
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6 hypotheses, H1 and H2 but suggest that busy and overlap directors affect the control activity  
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8 exerted by the board. Busy directors improve the quality of financial information issued by the firms,  
9  
10 which reduces the probability of issuance of qualified audit opinion while overlap directors have the  
11  
12 opposite effect. We have therefore additional evidence of the reputational effect of busy directors  
13  
14 and also evidence of over-commitment in the case of overlap directors.  
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Insert Table V about here
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22 We find also that the probability of receiving a qualified audit opinion is negatively related to  
23  
24 firm's size but positively related to firms' performance. However, these effects do not hold when we  
25  
26 include fixed firm's effects.  
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### 31 32 *4.3 Results related to earnings management* 33

34  
35 Table VI presents the results of equation (1) in relation to the effect of busy and overlap  
36  
37 directors on earnings management. We use Dechow et al. (1995) procedure to compute absolute  
38  
39 value of discretionary accruals as our proxy of earnings management. Detail on this absolute value of  
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41 discretionary accruals computation is in Appendix A. We find evidence of a negative influence of  
42  
43 busy directors on the size of abnormal accruals. However, this result is only statistically significant in  
44  
45 the pooled OLS estimation in column 1. Our results fail to find a stable and statistically significant  
46  
47 relationship between the proportions of busy or overlap directors and the absolute value of  
48  
49 abnormal accruals and hence, we cannot reject our null hypotheses, H1 and H2, for earnings  
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51 management as our outcome variable.  
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Insert Table VI about here
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4 In relation to our results for corporate governance control variables, we only find a stable  
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6 and statistically significant relationship in the case of the CEO duality variable. Our results indicate a  
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8 negative influence of the CEO duality on earnings management, which implies that the  
9  
10 concentration of power in the hands of the CEO improves the reliability of the financial  
11  
12 information. Finally, as far as the financial features of the firm are concerned, we find higher  
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14 earnings management in larger firms and firms that display a high return on investment.  
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#### 21 4.4 *Confounding effects of firms size*

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23 Previous evidence on the effect of busy directors is mixed with Ferris et al. (2003) showing  
24  
25 that busy directors are effective monitors and Fich and Shivdasini, (2006) reporting weak control  
26  
27 exerted by busy directors. Cashman *et al.* (2012) explain this discrepancy of results based on the  
28  
29 sample selection and the estimation techniques used. Following Cashman *et al.* (2012), we have used  
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31 estimations with and without fixed firm effects, showing in most cases that our results remain  
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33 independently of the estimation technique used. Cashman et al (2012) also set the possibility that the  
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35 effect of busy and overlap directors is contingent on the firm's size. Considering that smaller firms  
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37 are presumably less complex than large firms, we might expect that the monitoring needs and the  
38  
39 monitoring outcomes of busy and overlap directors could differ between small and large firms. To  
40  
41 test this possibility, we have re-estimated our regression equation (1) for all models including  
42  
43 interaction terms of busy and overlap directors with a dummy variable (LARGEFIRM) indicating if  
44  
45 a firm is above or below the median firm's size for our sample. Results for the busy and overlap  
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47 variables and their respective interaction terms with LARGEFIRM are shown in Table VII. The  
48  
49 same control variables of the original models in Tables IV to VI are included, but not displayed for  
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51 the sake of succinctness.  
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60 Insert Table VII about here

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4 In Panel A of Table VII, we observe differential effects of overlap directors on the executive  
5 remuneration between large and small firms. The effect for small firms is negative indicating that  
6 overlap directors contribute to a better control of managerial remuneration. However, the positive  
7 coefficient for the interaction term, larger than the absolute value of the coefficient on the variable  
8 OVERLAP, indicates a positive effect of overlap directors on the executives' pay for large firms.  
9 This result is consistent with a stronger over commitment effect in large firms. Overlap directors are  
10 beneficial for small firms, but in large and complex firms, the beneficial effect derived from the  
11 transfer of knowledge and reduction of information asymmetry by overlap directors is exceed by  
12 over commitment effects.  
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26 We also observe differential size affects in Panel B. We obtain evidence of a negative effect  
27 of busy directors on the probability of receiving a qualified audit opinion in small firms and a  
28 positive effect on large firms. This result is consistent with the existence of more intense over  
29 commitment effects in large and complex firms.  
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#### 39 4.5 *Additional tests*

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41 As shown in Table II of descriptive statistics, executives' remuneration presents some  
42 extreme values ranging from only 4000 Euro to 18 million. To verify if our results are insensitive to  
43 the extreme values of this variable, we have winsorized executive remuneration at the 1%-99% level  
44 and have re-estimated all the regressions. The qualitative interpretation of the coefficients on busy  
45 and overlap variables do not change from those reported in Table IV.  
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54 In the literature review section, we have presented opposite effects of busy and overlap  
55 directors on the fulfilment of their supervisory duties. On the negative side busy and overlap  
56 directors can suffer from over commitment. On the positive side, busy directors are experienced and  
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4 reputed directors and overlap directors produce information-sharing benefits. To consider a possible  
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6 non-linear relation between busy and overlap directors and the set of control outcomes analysed, we  
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8 have estimated all previous models adding linear and squared terms of our variables BUSY and  
9  
10 OVERLAP. We find no evidence of non-linearity for any of the models estimated.  
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14           Considering the whole set of results obtained, we conclude that busy and overlapped  
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16 directors affect the different manifestations of the board's supervisory activity. On the one hand,  
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18 busy directors are portrayed as effective managers as they pay less to their executives and involve  
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20 with lower probability of receiving a qualified audit opinion. On the other hand, overlap directors  
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22 are weak monitors as they are associated with a higher probability of a qualified audit opinion. In  
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24 both cases, we observe that the effects of busy and overlap directors are contingent on the size and  
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26 complexity of firm. For large firms we observe the existence of over commitment effects both for  
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28 busy and overlap directors.  
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## 34 35 **5. Conclusions** 36

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38           Multiple directorships and its impact on the director's capability to perform their fiduciary  
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40 duties is a concern that has been reflected in many corporate governance codes. A director serving  
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42 on many boards could bring resources in the form of external knowledge and expertise, but at the  
43  
44 same time could also be too busy to exert an effective managerial control. The simultaneous  
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46 director's committee membership could suppose to a certain extent a similar situation which has a  
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48 positive side in the form of information transfer and a negative side coming from over commitment.  
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53           Using an unbalanced panel of 807 firm-year observations from 122 Spanish non-financial  
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55 listed companies over 2004-2011, we investigate the effect of busy and overlap independent  
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57 directors on the quality of the monitoring of managers performed by the board. We have considered  
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59 three board supervisory outcomes in our empirical analysis: executives' remuneration, external  
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4 auditor's opinion and earnings management. Considering the whole set of results obtained, we find  
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6 that busy and overlap directors affect the different manifestations of the board's supervisory activity.  
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8 We conclude that busy directors are beneficial to the effective monitoring of managers. The  
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10 presence of busy directors is associated both with low executives' pay and low probability of a  
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12 qualified audit opinion. We find also that overlap directors erode the monitoring capability of the  
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14 board of directors as their presence at the board is associated with a higher probability of receiving a  
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16 qualified audit opinion. We also obtain evidence that the over commitment effects of both busy and  
17  
18 overlap directors become apparent in the case of large firms. The higher complexity of the control  
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20 task in large firms make more relevant the lack of time availability of busy and overlap directors,  
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22 making over commitment costs more severe.  
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29 On the practical side, our findings indicating the strong (weak) monitoring performance of  
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31 busy (overlap) directors could be of interest for the nominating committees, which could consider  
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33 the multiple directorships and committee memberships of prospective candidates for directorial  
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35 positions. The evidence obtained could also be of interest to our policy makers in the issuance of  
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37 specific recommendations to limit the number of external board directorships or to shape board  
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39 committees. Policy makers should be especially careful with these regulations, since the desire of the  
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41 directors to build a sound reputation as good controls may be affected by a rigid limit on the  
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43 number of simultaneous directorships, which will erode the positive effect of the directors'  
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45 'busyness'. Moreover, the effect of busy and overlap directors depend on the firm's size which  
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47 brings an extra complication at giving a "one size fits all recipe" by regulators. Therefore, it appears  
48  
49 that leaving certain freedom to listed firms to decide the formation of their board and committees  
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51 would be beneficial, as imposing any rigid limit in these matters could lead to undesirable effects.  
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## Appendix A: Measure of discretionary accruals

Discretionary accruals are estimated using the cross sectional variation of the modified Jones model proposed by Dechow, Sloan and Sweeney (1995). First, we compute total accruals (TACR) as the change in non-cash current assets minus the change in operating current liabilities and depreciation and amortization expense, i.e.,

$$TACR_t = \Delta(\text{Current asstes - Cash})_t - \Delta(\text{Current Liabilitie s - Short term debt})_t - \text{Depreciation}_t \quad (2)$$

We then regress TACR on two variables: the change in revenues net of the change in receivables ( $\Delta REV - \Delta REC$ ); and gross property, plant and equipment (PPE). The book value of total assets of the previous period (TA) is used as a deflator to reduce heteroscedasticity.

$$\frac{TACR_{jt}}{TA_{j,t-1}} = \alpha_0 \frac{1}{TA_{j,t-1}} + \alpha_1 \frac{\Delta REV - \Delta REC_{jt}}{TA_{j,t-1}} + \alpha_2 \frac{PPE_{jt}}{TA_{j,t-1}} + \varepsilon_{jt} \quad (3)$$

Equation (4) is estimated for each industry at two-digit SIC level and fiscal year combination. The non-discretionary accruals are the prediction values from equation (3), while discretionary accruals are the residuals. We take the absolute value of the residuals as our proxy for earnings management.

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**Table I: Definition of variables**

This table presents the definition of the variables used in the different models, dependent variables, the independent and control variables.

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**DEPENDENT VARIABLES**

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EXECPAY	Average annual total remuneration per executive director (2004 euros)
QUALIFIED	Binary variable that takes value 1 if the firm receives a qualified audit opinion and 0 otherwise.
ABSDISCACCRUALS	Absolute value of discretionary accruals
DISCACCRUALS	Discretionary accruals

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**INDEPENDENT VARIABLES**

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BUSY	Number of busy independent directors scaled by the total number of independent directors at the board. A director is considered busy if she/he holds at least three simultaneous directorships.
OVERLAP	Number of overlap independent directors scaled by the total number of independent directors at board. A director is overlap if she/he is simultaneously a member of the audit and the remuneration committee.

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**CONTROL VARIABLES**

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LARGE1	Proportion of outstanding shares owned by the largest shareholder.
INDEPENDENT	Proportion of board independent directors.
BOARDSIZE	Naperian logarithm of the number of board members
EXECOWN	Proportion of outstanding shares owned by board executives
CEOCHAIR	Binary variable that takes value 1 if the CEO is also the board's chairman and 0 otherwise
SIZE	Naperian logarithm of the firm's book value of total assets measured in thousands of constant 2004 Euros
LEVERAGE	Book value of total liabilities to total assets ratio
ROA	Ratio of EBIT to total assets
RISK	Standard deviation of daily stock market returns

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8 **Table II: Descriptive statistics**

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10 This table presents the distribution of variables for the period between 2004 and 2011 by showing mean, standard  
11 deviation (SD) , minimum (Min.) and, maximum (Max.). EXECPAY is the average annual total remuneration per  
12 executive director in constant 2004 thousand Euros. BUSY is the total number of independent directors that hold three  
13 or more than three directorships scaled by the total number of board independent directors. OVERLAP is the total  
14 number of independent directors serving on both audit and compensation committee scaled by total number of  
15 independent directors. LARGE1 is the share ownership of the largest shareholder. INDEPENDENT is the proportion  
16 of board independent directors. BOARDSIZE is the total number of board members. EXECOWN is the ownership  
17 stake held by the board executives. CEOCHAIR is a binary variable that takes value 1 if the CEO is also the board's  
18 chairman and 0 otherwise. SIZE is the firm's book value of total assets measured in thousands of constant 2004 Euros.  
19 LEVERAGE is the ratio of total liabilities to total assets. ROA is the ratio of EBIT to total assets. RISK is the standard  
20 deviation of the firm's daily stock market returns. All variables coincide with definitions in table 1 except for EXECPAY  
21 and BOARDSIZE which for the sake of clarity are not log-transformed.

Variable	Mean	SD	Min.	Max
EXECPAY	787.741	1199.514	4	18430.5
DISCACCRUALS	0.1541469	0.4306099	0.0003253	3.387988
ABSDISCACCRUALS	0.0389166	0.4487971	-0.8276988	3.387988
QUALIFIED	0.1496259	0.3568527	0	1
BUSY	0.088317	0.1835885	0	1
OVERLAP	0.1777701	0.2999608	0	1
LARGE1	35.21471	25.0539	0.478	98.07
INDEPENDENT	0.2871571	0.1956241	0	0.8125
BOARDSIZE	10.19534	4.075728	3	21
EXECOWN	13.57299	22.89043	0	92.051
CEOCHAIR	0.2028263	0.4022714	0	1
SIZE	12.82173	1.955304	8.439757	17.67429
ROA	0.0658905	0.1013322	-0.2482815	0.4476975
LEVERAGE	0.507553	0.2664514	0.0038993	1.25574
RISK	0.0206043	0.0092031	0.0076337	0.0543153

**Table III: Correlation matrix**

This table presents Pearson pairs-wise correlation matrix. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% level. Variable definitions are summarized in Table 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 EXECPAY	1													
2 QUALIFIED	0.01	1												
3 ABSDISACCURALS	0.03	0.02	1											
4 BUSY	0.02	-0.03	-0.06*	1										
5 OVERLAP	-0.07*	0.02	0.07*	0.12***	1									
6 LARGE1	-0.04	0.08*	-0.04	0.05	0.04	1								
7 INDEPENDENT	0.14***	-0.03	-0.01	0.10***	0.12***	-0.14***	1							
8 BOARDSIZE	0.17***	-0.03	-0.14***	0.11***	-0.15***	-0.14***	0.10***	1						
9 EXECDOWN	0.08**	0.03	0.04	-0.02	-0.02	0	-0.04	0	1					
10 CEOCHAIR	0.18***	0.03	0.02	0.10***	-0.01	-0.06*	0.07*	0.04	-0.02	1				
11 SIZE	0.18***	0	-0.10***	0.22***	-0.02	0.02	0.21***	0.67***	-0.03	0.04	1			
12 ROA	0.04	0	-0.13***	0.08**	-0.08**	0.06	-0.03	0.11***	0	0.04	0.13***	1		
13 LEVERAGE	-0.01	0.03	0.05	0	0.08**	-0.02	0.01	0.03	0	-0.03	0.06*	-0.72***	1	
14 RISK	-0.17***	0.07*	0.13***	-0.14***	0.17***	0	0.01	-0.22***	-0.02	-0.20***	-0.16***	-0.30***	0.18***	1

**Table IV: Regression results of executive total pay on busy and overlap directors**

This table presents the pooled-OLS (Pooled OLS) robust, fixed effects (FFEE) and random effects (RREE) panel estimates of equation (1) predicting Executive Compensation using an unbalanced panel of firm-level data for the period 2004-2011. The dependent variable EXECPAY is the naperian logarithm of average board executives remuneration in constant 2004 Euros. BUSY is the total number of independent directors that hold three or more than three directorships scaled by the total number of independent directors. OVERLAP is the total number of independent directors serving on both audit and remuneration committee scaled by total number of independent directors. LARGE1 is the share ownership of the largest shareholder. INDEPENDENT is the proportion of board independent directors. BOARDSIZE is naperian logarithm of the total number of board members. EXECOWN is the ownership stake held by the board executives. CEOCHAIR is a binary variable that takes value 1 if the CEO is also the board's chairman and 0 otherwise. SIZE is naperian logarithm of the firm's book value of total assets measured in thousands of 2004 constant Euros. ROA is the ratio of EBIT to total assets. LEVERAGE is the ratio of total liabilities to total assets. RISK is the standard deviation of the firm's daily stock market returns. All models include 2-digit SIC and year dummy variables. P-values based on robust standard errors clustered at the firm level are shown in parentheses. Levels of significance are indicated by \*, \*\*, and \*\*\* for 10%, 5%, and 1%, respectively.

	(Pooled OLS) EXECPAY	(FFEE) EXECPAY	(RREE) EXECPAY
BUSY	<b>-0.715**</b> (-2.27)	<b>-1.403***</b> (-3.12)	<b>-0.715**</b> (-2.26)
OVERLAP	-0.158 (-0.77)	-0.170 (-0.56)	-0.158 (-0.73)
LARGE1	<b>0.000940***</b> (6.14)	<b>0.00108**</b> (2.42)	<b>0.000940**</b> (2.29)
INDEPENDENT	<b>0.898**</b> (2.06)	<b>2.549***</b> (3.90)	<b>0.898**</b> (2.44)
BOARDSIZE	-0.0259 (-0.80)	-0.0354 (-0.75)	-0.0259 (-1.07)
EXECOWN	<b>-0.000934***</b> (-6.10)	<b>-0.00108**</b> (-2.41)	<b>-0.000934**</b> (-2.27)
CEOCHAIR	-0.0496 (-0.17)	-0.0506 (-0.20)	-0.0496 (-0.25)
SIZE	<b>0.193***</b> (3.28)	<b>0.468**</b> (2.14)	<b>0.193***</b> (3.56)
ROA	-0.0988 (-0.16)	-0.329 (-0.42)	-0.0988 (-0.18)
LEVERAGE	-0.0247 (-0.07)	-0.0248 (-0.04)	-0.0247 (-0.08)
RISK	-7.078 (-0.79)	14.85 (1.42)	-7.078 (-0.88)
CONSTANT	5.177*** (7.62)	0.821 (0.30)	5.177*** (7.76)
Total observations	729	729	729
Adjusted R-square	0.206	0.2488	0.2329
F-statistics/wald chi2	240.8	10.95	213.44
p	1.60e-87	0.0000	7.76e-32
Number of cluster	116	116	
Hausman		28.74	
p		0.0257	

**Table V Regression results of audit opinion on busy and overlap directors**

Logit estimates of auditor's qualified opinion issuance using an unbalanced panel of firm-level data for the period between 2004-2011. The dependent variable QUALIFIED takes the value of one if the firm receives a qualified audit opinion and zero otherwise. BUSY is the total number of independent directors that hold three or more than three directorships scaled by the total number of independent directors. OVERLAP is the total number of independent directors serving on both audit and remuneration committee scaled by total number of independent directors. LARGE1 is the share ownership of the largest shareholder. INDEPENDENT is the proportion of board independent directors. BOARDSIZE is the naperian logarithm of the total number of board members. EXECOWN is the ownership stake held by the board executives. CEOCHAIR is a binary variable that takes value 1 if the CEO is also the board's chairman and 0 otherwise. SIZE is naperian logarithm of the firm's book value of total assets measured in thousands of 2004 constant Euros. ROA is the ratio of EBIT to total assets. LEVERAGE is the ratio of total liabilities to total assets. P-values based on robust standard errors clustered at the firm level are shown in parentheses. Levels of significance are indicated by \*, \*\*, and \*\*\* for 10%, 5%, and 1%, respectively.

Variables	QUALIFIED	QUALIFIED	QUALIFIED
	(Pooled OLS)	(FFEE)	(RREE)
BUSY	-1.129 (-1.43)	<b>-3.135**</b> (-2.24)	<b>-1.685*</b> (-1.70)
OVERLAP	<b>1.660***</b> (2.90)	<b>1.611**</b> (2.52)	<b>1.983***</b> (3.69)
LARGE1	-0.00598 (-1.02)	-0.0142 (-1.33)	-0.00528 (-0.74)
INDEPENDENT	-0.0391 (-0.04)	-0.300 (-0.17)	-0.00468 (-0.00)
BOARDSIZE	-0.0870 (-1.58)	-0.0293 (-0.32)	-0.0872 (-1.35)
CEOTENURE	0.00598 (1.02)	0.0142 (1.33)	0.00529 (0.74)
EXECOWN	-0.307 (-0.77)	0.692 (1.11)	-0.219 (-0.47)
CEOCHAIR	<b>-0.235*</b> (-1.80)	0.248 (0.60)	-0.278 (-1.59)
SIZE	<b>-3.203*</b> (-1.88)	-3.261 (-1.62)	<b>-4.039**</b> (-2.46)
ROA	<b>2.657***</b> (3.47)	1.726 (1.36)	<b>3.077***</b> (3.29)
LEVERAGE	<b>26.26**</b> (2.01)	11.72 (0.50)	19.48 (1.05)
CONSTANT	0.797 (0.47)		0.928 (0.45)
Pseudo R-square	0.2736		
Log likelihood	-229.3	-84.5	-212.4
Chi-squared	142.00	71.99	72.36
p-value	0.0000	0.0000	0.0000
Total Observations	807	340	807
Number of clusters	122	48	122
Hausman		42.74	
p		0.0005	

**Table VI Regression results of earnings management**

This table presents the pooled-OLS fixed effects and random effects panel estimation of equation (1) predicting the value of absolute abnormal accruals using an unbalanced panel of firm-level data for the period between 2004-2011. The dependent variable ABSDISCACCRUALS is absolute value of discretionary accruals generated from the modified Jones model. BUSY is the total number of independent directors that hold three or more than three directorships scaled by the total number of independent directors. OVERLAP is the total number of independent directors serving on both audit and remuneration committee scaled by total number of independent directors. LARGE1 is the share ownership of the largest shareholder. INDEPENDENT is the proportion of board independent directors. BOARDSIZE is the naperian logarithm of the total number of board members. EXECOWN is the ownership stake held by the board executives. CEOCHAIR is a binary variable that takes value 1 if the CEO is also the board's chairman and 0 otherwise. SIZE is naperian logarithm of the firm's book value of total assets measured in thousands of 2004 constant Euros. ROA is the ratio of EBIT to total assets. LEVERAGE is the ratio of total liabilities to total assets. RISK is the standard deviation of the firm's daily stock market returns. P-values based on robust standard errors clustered at the firm level are shown in parentheses. Levels of significance are indicated by \*, \*\*, and \*\*\* for 10%, 5%, and 1%, respectively.

	(Pooled OLS)	(FFEE)	(RREE)
	ABSDISCACCRUALS		
BUSY	<b>-0.222*</b> <b>(-1.90)</b>	0.0104 (0.05)	-0.211 (-1.39)
OVERLAP	0.140 (1.01)	0.175 (1.34)	0.142 (1.44)
LARGE1	<b>-0.000152**</b> <b>(-2.20)</b>	-0.000155 (-0.82)	-0.000152 (-0.83)
INDEPENDENT	-0.0923 (-0.47)	-0.0380 (-0.13)	-0.0904 (-0.52)
BOARDSIZE	-0.00484 (-0.45)	-0.0253 (-1.40)	-0.00760 (-0.68)
EXECOWN	0.000153** (2.22)	0.000157 (0.83)	0.000153 (0.84)
CEOCHAIR	<b>-0.303*</b> <b>(-1.87)</b>	<b>-0.387***</b> <b>(-3.41)</b>	<b>-0.309**</b> <b>(-3.29)</b>
SIZE	0.00864 (0.35)	<b>0.326***</b> <b>(3.58)</b>	0.0159 (0.61)
ROA	0.289 (1.20)	<b>0.741**</b> <b>(2.20)</b>	0.357 (1.43)
LEVERAGE	-0.105 (-0.79)	-0.380 (-1.47)	-0.103 (-0.72)
RISK	12.95 (1.36)	5.855 (1.27)	11.61*** (3.15)
CONSTANT	0.589* (1.68)	-3.275*** (-2.90)	0.534* (1.67)
Total observations	738	738	738
Adjusted R-square	0.0634	0.0905	0.0945
F-statistics/wald chi2	5.351	3.34	67.64
p	2.25e-10	0.0000	0.0000
Number of cluster	115	115	115
Hausman		29.49	
p		0.0208	

**Table VII: Regression results of confounding effects of firm size**

This table presents the pooled-OLS and fixed effects estimation of equation (1) predicting the EXECPAY and ABSDISACCRUALS (Panel A) and pooled logit and fixed effects estimations predicting QUALIFIED (Panel B) using an unbalanced panel of firm-level data for the period between 2004 and 2011. The dependent variable EXECPAY is the naperian logarithm of total executive remuneration in constant 2004 Euros. ABSDISACCRUALS is absolute value of discretionary accruals generated from the modified Jones model. QUALIFIED takes the value of one if the firm receives a qualified audit opinion and zero otherwise. BUSY is the total number of independent directors that hold three or more than three directorships scaled by the total number of independent directors. OVERLAP is the total number of independent directors serving on both audit and remuneration committee scaled by total number of independent directors. LARGE FIRM is a binary value that takes value one if a firm's size is above the median firm's size for the sample of study and zero otherwise. P-values based on robust standard errors clustered at the firm level are shown in parentheses. Levels of significance are indicated by \*, \*\*, and \*\*\* for 10%, 5%, and 1%, respectively.

*Panel A: Estimations of executive pay and absolute discretional accruals*

Variables	EXECPAY		ABSDISACCRUALS	
	(Pooled)	(FEE)	(Pooled)	(FEE)
BUSY	-0.262 (-0.44)	-1.368 (-1.45)	<b>-0.397*</b> <b>(-1.88)</b>	-0.0599 (-0.12)
BUSY*LARGE FIRM	-0.503 (-0.78)	-0.0468 (-0.04)	0.315 (1.35)	0.105 (0.19)
OVERLAP	<b>-0.515**</b> <b>(-2.16)</b>	<b>-0.662*</b> <b>(-1.66)</b>	0.189 (0.86)	<b>0.276*</b> <b>(1.68)</b>
OVERLAP* LARGE FIRM	<b>0.903**</b> <b>(2.47)</b>	<b>1.201**</b> <b>(2.05)</b>	-0.134 (-0.61)	-0.224 (-0.87)
CONSTANT	7.065*** (12.80)	6.439*** (8.90)	0.674** (2.10)	0.674** (2.30)
Total Observations	729	729	738	738
Adjusted R-square	0.198	0.2484	0.0651	0.0724
F-statistics	254.9	10.33	5.202	2.48
p-value	0.0000	0.0000	0.0000	0.0005
Number of clusters	116	116	115	115

*Panel B: Panel A: Logit estimations of audit opinion*

Variables	QUALIFIED	
	Pooled logit	FEE
BUSY	<b>-2.657***</b> <b>(-2.86)</b>	<b>-5.413**</b> <b>(-2.37)</b>
BUSY*LARGE FIRM	<b>2.766**</b> <b>(1.97)</b>	3.603 (1.31)
OVERLAP	<b>2.012***</b> <b>(2.69)</b>	<b>2.363***</b> <b>(2.85)</b>
OVERLAP* LARGE FIRM	-1.209 (-1.14)	-1.794 (-1.29)
CONSTANT	-1.546 (-1.47)	
Total Observations	807	340
Pseudo R-square	0.2879	
Log likelihood	-224.8	-83.2
Chi-squared	164.42	74.59
p-value	0.0000	0.0000
Number of clusters	122	48