# Nomination committee characteristics and exposure to environmental, social and governance (ESG) controversies: evidence from European global systemically important banks

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#### **Abstract**

Purpose - Based on the agency and resource dependence theories, this study aims to investigate whether nomination committee (NC) characteristics could serve as key attributes for reducing environmental, social and governance (ESG) disputes and whether NC composition affects the appointment of ESG-friendly directors to the board.

Design/methodology/approach - This study focuses on a sample of 30 global systemically important banks from 2015 to 2021. The authors estimate panel data models with fixed effects, clustering heteroskedastic standard errors at the bank level to account for the serial correlation of the dependent variables for each bank.

Findings - Banks' exposure to ESG controversies can be reduced when NC members have specific skills, in particular when at least one member of this committee also belongs to the sustainability committee and is a foreign director. Moreover, banks' ESG disputes decrease when the NC members are younger, while the share of independent NC members has a negative impact. Finally, a positive influence of NC composition and its members' features as well as the appointment of ESG-friendly directors on the board is found.

Originality/value - The findings are particularly useful during periods such as the current one, when there is growing attention to both banks' corporate governance, the subcommittees' role and functioning and social and environmental issues. This study shows that the NC is important in reducing the likelihood of banks incurring ESG disputes and in appointing more ESG-friendly directors. NC effective functioning and its members' qualities serve as a key attribute for fulfilling objective assessment and improving board effectiveness.

**Keywords** Board of directors, Nomination committee, Global systemically important banks (G-SIBs), ESG controversies

Paper type Research paper

## 1. Introduction

In recent years, especially in the aftermath of the subprime and sovereign crises, the focus of bank supervisory authorities on directors' nomination processes has greatly increased given that having high-quality managers is an essential condition for a more effective and efficient corporate governance system (Kaczmarek et al., 2012), and a useful tool for preventing crises, at the financial and reputational level. Following this, banks were required to have a clear and rigorous process for identifying, assessing and selecting board candidates and to promote appropriate succession planning for all board members

(BCBS, Basel Committee on Banking Supervision, 2015). This selection process aims to verify that board candidates possess adequate knowledge, skills and experience to fulfil their responsibilities, a good reputation and no conflicts of interest (BCBS, Basel Committee on Banking Supervision, 2015). Moreover, board candidates should be able to promote smooth interaction between all board members. To this end, banks have to establish a nomination committee (NC) to ensure that the board is appropriately composed and performs its statutory tasks and functions optimally. Moreover, the NC should ensure that the board of directors is equally balanced in terms of members' gender and is not dominated by any one person or a small group of individuals (Hutchinson et al., 2015).

Thus, an NC can be considered a key attribute for improving board effectiveness, controlling executives' decision-making and thus achieving firm success (Agyemang-Mintah, 2015). A firm's financial performance largely depends on the executive management's behaviour and competences and hence on whom the NC has appointed to this board. According to agency theory, the NC plays a crucial role in balancing managers' and shareholders' interests. This body, which nominates both new directors and proper candidates for the board (Soana and Crisci, 2017), can reduce the influence of firm chief executive officers (CEOs) on the director selection process (Shivdasani and Yermack, 1999; Vafeas, 1999; Eminet and Guedri, 2010), by thus ensuring the independence and quality of the nominees (Kaczmarek et al., 2012). Moreover, the selection process can address the information asymmetry between the board and the management, aligning hired board members so that they can collaborate to promote shareholders' interests (Ruigrok et al., 2006). Finally, the optimal NC composition is an important prerequisite for improving the diversity of the entire board of directors (Kaczmarek et al., 2012; Elmagrhi et al., 2016).

In the light of these considerations, this research aims to extend the debate on corporate governance in financial institutions, focusing on the role and composition of the NC and considering several characteristics of its members, such as independence, corporate social responsibility (CSR) skills, age and nationality. The paper also intends to determine whether such qualifications of NC members positively affect banks' environmental, social and governance (ESG) performance, reducing the involvement of these companies in nonfinancial disputes. Under information asymmetry, reducing ESG disputes is crucial for building stakeholder trust. In turn, trust-making is critical for financial intermediaries, especially for the leading banks which play a key role in the global financial system. Finally, to make our results more robust and consistent, we also verify whether NCs (members' characteristics and composition) affect the appointment of ESG-friendly directors on the board. In this way, we explicitly investigate the channel of the director nomination process to link NCs and ESG. This is a complementary and interesting research line that certainly ought to receive more attention from scholars in the future. We intend to make our contribution in the knowledge that this is a broad and complex issue.

For these purposes, we focus on European global systemically important banks (G-SIBs) selected by the European Banking Authority (EBA) for the period 2015–2021. According to the Capital Requirements Directive (CRD IV, Directive 2013/32/EU), all systemic banks are required to establish an NC composed of members of the management body who do not perform any executive function in the institution concerned. We choose to analyse the banking industry for several reasons. For instance, we believe that ESG factors and transparency take on greater importance in the banking and financial sector because of the role played by financial intermediaries in terms of economic development, financial stability, monitoring and selection activities. For example, in general terms, banks may affect the external natural environment both directly, through the sustainability impacts generated by their operations, and indirectly, by lending financial resources to more ESG customers. Indeed, banks that assign greater importance to ESG issues will use these same criteria in their lending activity, thus influencing the behaviour of all other sectors of the economy. Both these aspects have some relevance in determining the effort that the banking system makes to address the Sustainability Development Goals. We use different sources of data: information on members of the NC and the board of directors (age, gender, nationality and sustainability skills) is hand-collected using banks' annual reports; financial data are retrieved from the BankFocus database and governance data and ESG controversies scores are gathered from the Refinitiv database. The economic sentiment indicator, which we use as a macro control variable, stems from the Eurostat database. The empirical analysis considers the years 2015–2021 because the main important regulatory initiatives regarding banks' board composition and directors' qualifications were implemented during these seven years (EBA, European Banking Authority, 2021; ECB, European Central Bank,

The essential role of the NC in the board notwithstanding, the literature on this topic is scant, especially regarding its influence on financial or sustainability performance (Kaczmarek et al., 2012). Existing studies mainly focus on other bank committees, such as, for example, the remuneration (Dell'Atti et al., 2013) and audit ones, yet the NC is responsible for selecting the members of these sub-committees (Agyemang-Mintah, 2015). Moreover, despite the existence of extensive research on the relationship between different board features and banks' sustainability performance (Birindelli et al., 2018), to our knowledge, little is known about the role and the influence (direct and indirect) of the NC in banks' exposure to ESG controversies. In addition, although there is a growing body of literature regarding the role of banks' board diversity (Berger et al., 2014; García-Meca et al., 2015; Arnaboldi et al., 2020a; Birindelli et al., 2020; Menicucci and Paolucci, 2022), to the best of our knowledge, this paper is the first to focus on the diversity of their NCs. Overall, this paper adds new and significant information about the corporate governance of SIBs which are influencing the global financial system during the current unstable financial situation.

The main finding of this study is that the ESG controversies score can be reduced when the NC members have specific skills, in particular, when at least one NC member also belongs to the CSR committee or is a foreign director. Thus, sustainability skills and the internationalization of the NC are crucial in minimizing banks' exposure to ESG controversies. In addition, we find an inverse relationship between the independence of NC members and the ESG controversies score. Although we attain positive evidence on the relationship between foreign members of the NC and a reduction in ESG controversies, an increase in the average age of NC members leads to greater exposure to ESG disputes for banks. Finally, we document a significant and positive influence of NC composition and its members' features as well as the appointment of ESG-friendly directors to the board.

This paper is organized as follows. Section 2 reviews the literature on NCs and develops the research hypotheses. Section 3 presents the sample and data collection. Section 4 provides the main results of the analysis, which are then discussed in Section 5. Section 6 suggests directions for future research, while Section 7 outlines the conclusions and the implications of the work.

## 2. Theoretical background and hypothesis development

Before formulating our research hypotheses, we think it appropriate to provide a theoretical discussion on (1) how NC attributes affect board characteristics and (2) how board characteristics affect banks' ESG policies and performance.

Regarding the first relationship (1), existing studies show that the design and membership of the sub-committees matters because these corporate bodies deeply affect the board of directors' efficacy (Xie et al., 2003). In this context, Shen et al. (2022) document how the composition of the nominating committee influences board monitoring and resource provision. Ruigrok et al. (2006) find firms with NCs are more likely to have a higher number of independent and foreign directors. Moreover, a foreign (or independent) director's presence on a NC is likely to lead to an increase in the overall representation of foreigners (or independents) on the board. Similarly, a significant positive association was further discovered between the race diversity of NCs and the appointment of new directors of colour (Mans-Kemp and Viviers, 2019). Finally, Cremona and Passador (2019) argue the NC bears the burden of striking a balance between the competence of the board of directors' members and the composition diversity (in terms of age, gender, nationality, etc.), given that there is not a strong link between board tenure and sustainability success.

In turn, some board characteristics appear to be very important in influencing the ESG performance of banks. The academic literature has recently explored the links between governance systems and bank ESG dimensions (Birindelli et al., 2018; Gallego-´Alvarez and Pucheta-Martínez, 2020). Several studies focus on the importance of corporate governance and climate change in the banking industry (Dell'Atti et al., 2017; Laguir et al., 2018; Miralles-Quiros et al., 2019; Gallego-´Alvarez and Pucheta-Martínez, 2020). Indeed, there is evidence that the composition of the board of directors can influence the environmental performance of banks (Birindelli et al., 2018; Tapver, 2019). Azmi et al. (2021) argue that, among the three ESG dimensions, the main findings reveal the importance of the environmental one, with respect to the social and the governance ones, in improving a bank's performance. In addition, El Khoury et al. (2023) provide evidence that the environmental pillar has a convex association with market returns, but the governance pillar has a concave link with reporting performance for each ESG component. Bătae et al. (2021) investigate the relationship between ESG dimensions and banks' financial performance. They account for corporate governance quality in the banking sector by creating a proxy including data related to corporate boards, the NC and its independence, cultural diversity and gender equality inside the board, CEO-chairperson duality, executive remuneration and risk governance.

Furthermore, among the different board characteristics, a rising number of academics have been investigating the connection between the board's gender diversity and ESG dimensions in board committees (Tejedo-Romero et al., 2017; Manita et al., 2018; Pucheta-Martinez and Bel-Oms, 2019; Tingbani et al., 2020). Velte (2016) proves female members of the board have a favourable influence on ESG performance as well as the establishment of a CSR committee. Birindelli et al. (2019) note that the presence of women on the board and female CEOs improve banks' environmental performance. Given that members of the board of directors are also members of the NC, such additional bibliographical references help us to strengthen the theoretical background of our paper.

Finally, it is important to acknowledge that, if on the one hand, the role of the NC is to nominate directors so that NC characteristics affect ESG policy/performance indirectly by affecting board characteristics (not to directly implement ESG policies), on the other hand, a certain degree of "direct influence" can also be detected. Members of NCs are simultaneously members of the board, so in addition to influencing the nomination process, they themselves make strategic-operational decisions within the board's purview. Indeed, considering that in the banking sector the CEO, i.e. the director with the most executive and decision-making powers, is very often a member/chief of the NC, NC members, as board members, contribute to the strategic-operational direction of the bank.

#### 2.1 Theoretical perspectives

This research considers three prominent theoretical perspectives: agency theory, resourcedependence theory and the similarity-attraction paradigm. According to agency theory, both scholars and regulators assign the NC the role of ensuring that the proper executives and board members are appointed to mitigate the information asymmetry between the owners and shareholders and the agents and executive management, thus aligning their interests (Soana and Crisci, 2017). From this point of view, NCs represent an effective corporate governance control mechanism for reducing agency costs (Ruigrok et al., 2006). Indeed, as previously stated, the NC plays an essential role in appointing directors with appropriate skills to adopt long-term strategies capable of meeting stakeholders' expectations in terms of improved financial and sustainability performance. In addition, the NC is a useful control tool for limiting CEO influence in the appointment of new directors on the board (Soana and Crisci, 2017). Thus, NCs are expected to support the mechanism of good corporate governance, control executives' decision-making, enhance board effectiveness and then help to achieve firm success (Chaudhry et al., 2020).

Based on the resource-dependence theory, the board and its sub-committees are essential in offering critical resources such as expert advice, independent suggestions, problemsolving abilities and a greater level of connections to the external environment (government, competitors, supervisory authorities, etc.). From this point of view, the NC can play an important role in ensuring that the firm maximizes the use of its internal resources for the benefit of all stakeholders (Ruigrok et al., 2006). Indeed, the NC is expected to positively influence the board composition by enhancing its diversity, which is a critical resource for improving the decision-making process. As a result, firms could benefit from improved financial and non-financial performance (Mans-Kemp and Viviers, 2019).

Finally, we also embrace the similarity-attraction paradigm that predicts that individual groups prefer to select similar members to themselves, that is, individuals who match the group culture, beliefs, attitudes and personality characteristics (Byrne, 1971). This occurs because an individual with a similarity in background may share common life experiences and values, create stronger links and better interact with other members, thereby increasing mutual reinforcement and consensus (Westphal and Zajac, 1995). Based on this theory, NC members are expected to select new directors who are like them, i.e. who share the same characteristics (in terms of age; skills, experience, etc.), and expectations (Kaczmarek et al., 2012), as well as in terms of the bank's ESG performance.

However, if such a theoretical discussion allows us to justify and validate the indirect influence of the NC and its members on a bank's sustainability performance, it should be considered how these directors (members of NCs) are simultaneously members of the board (BCBS, Basel Committee on Banking Supervision, 2015; CRD V) and thus may also exert a certain degree of "direct influence" on the adoption of sustainability practices. Indeed, in addition to influencing the nomination process and the members' features (the main task/duty of the NC), they themselves make strategic-operational decisions within the board's purview, as members of the board of directors. Thus, NC members also contribute to the strategic-operational direction of the bank, including its commitment to sustainability.

## 2.2 Nomination committee's independence and environmental, social and governance performance

Banking regulations (BCBS, Basel Committee on Banking Supervision, 2015; CRD V; EBA, European Banking Authority, 2021), including many corporate governance codes and stock exchange requirements (see, for example, the New York Stock Exchange Listed Company Manual), unanimously recommend that the majority of NC members are non-executive or independent directors. This is important because, from the agency theory viewpoint, the independence of NCs represents a critical tool for reducing the influence of firm CEOs on the director selection process (Vafeas, 1999; Clune et al., 2014). As a result, the quality of new director appointments is at its highest when all NC members are independent and the CEO is not among them (Kaczmarek et al., 2012). Vafeas (1999) argue that an NC composed of outside board members has improved functioning and operating efficiency. Moreover, a high level of independence in the NC not only increases the number of independent board directors (Ruigrok et al., 2006) but is also related to the designation of directors with higher reputation capital (Vafeas, 1999). Finally, the presence of a greater number of independent directors on the NC leads to higher

performance (Zajac and Westphal, 1996) and lower stock price responses to non-executive director assignments (Shivdasani and Yermack, 1999).

However, the influence of the NC's independence on corporate outcomes has not yet been explored in depth in the literature, especially with regard to the banking sector. A large number of studies analyse the independence of banks' boards, considering it to be the main board characteristic that positively influences companies' economic and non-financial outcomes (Wang and Hsu, 2013). Indeed, scholars agree on the key role of independent directors in increasing effective board monitoring, reducing agency conflicts and ensuring better management quality (Birindelli et al., 2018; Beji et al., 2020) because independent directors do not have executive functions and their compensation is not related to the shortterm financial performance of the company. These circumstances allow such directors to make objective and unbiased judgements about the managers' performance that consider all the stakeholders' interests. Indeed, the agency and stakeholder theories attribute an essential role in enhancing both economic and sustainability performance to board independence (Elmagrhi et al., 2016; Ortas et al., 2017).

However, at the empirical level, there are mixed results, especially with regard to firms' nonfinancial performance. While most works confirm a positive relationship between independent directors and sustainability outcomes, others find no significant relationship (Walls and Berrone, 2017) or even a negative one (Haniffa and Cooke, 2005; Mallin et al., 2013). Similarly, studies on banks do not fully converge. Kilic et al. (2015) and Jizi et al. (2014) document that board independence is positively related to banks' CSR disclosure, but no significant linkage is detected by Hossain and Reaz (2007). Conversely, Birindelli et al. (2018) and Tapver (2019) identify a negative relationship between independent directors and banks' ESG performance and CSR disclosure, respectively. Finally, although these works focus on the independence of the board, their outcomes can also be applied to the NC, as the two bodies share the same directors. Hence, based on the above discussion, we state the following hypothesis:

H1. The NC's independence can exert a positive/negative impact on (can reduce/ increase) banks' exposure to ESG controversies.

## 2.3 Nomination committee's sustainability skills and environmental, social and governance performance

Section 124 of the recent joint European Securities and Markets Authority (ESMA) and EBA guidelines on the suitability of members of the management body states that "members of the NC should have adequate collective knowledge, expertise and experience relating to the business of the institution to be able to assess the appropriate composition of the management body" (ESMA and EBA, 2021, p. 52). Moreover, Section 63 of the same guidelines affirms that "when assessing the knowledge, skills and experience of a member of the management body, consideration should be given to theoretical and practical experience relating to - among several aspects - all main types of risk of an institution including environmental, governance and social risks". Together, these two recommendations include a clear reference to the need for bank NCs' members to have, among other competencies, specific expertise on sustainability and ESG risks in the financial sector to carry out their functions effectively. Equally, the recently revised ECB guide to fit and proper assessments stresses the importance of the management body possessing adequate collective knowledge of climate-related and environmental risk, given the increasing relevance of these issues as an area of supervisory attention (ECB, European Central Bank, 2020, 2021).

Directors' possession of adequate competencies and skills is also considered important by scholars (Jang et al., 2019). Many studies on corporate governance show that a higher education level of board members is a key determinant of their involvement in CSR (Gadenne et al., 2009) or environmental activities (Shahgholian, 2017). In the same vein, other studies find that the presence of a CSR committee - and thus of directors with expertise on sustainability issues – is positively associated with the extent and/or quality of sustainability disclosure (Liao et al., 2015; Helfaya and Moussa, 2017; Cucari et al., 2018) or CSR performance (Spitzeck, 2009). These considerations allow us to formulate the second research hypothesis:

H2. The presence of sustainability-educated directors on the NC is negatively associated with banks' ESG controversies.

## 2.4 Nomination committee's age diversity and environmental, social and governance performance

To derive H3, it is necessary to consider the argument that NCs with younger directors have higher social performance. This requires a two-step discussion of what kind of directors NCs with young directors tend to nominate and whether those nominated directors lead to high social performance.

Members' age diversity is another crucial characteristic of both the board of directors and sub-committees (ECB, European Central Bank, 2021). Directors' age matters because it reflects their values and beliefs by influencing their decision-making process and risk-taking attitude (Darmadi, 2011). Age diversity has been demonstrated to improve team performance in all cases when the work is complicated (Wegge et al., 2008); moreover, age diversity has been found to be positively associated with company performance (Ferrero-Ferrero et al., 2015a, 2015b).

Although older directors can be valuable assets to firms because of their broad experience, recent research shows that they are associated with monitoring deficiencies and worse firm performance (Masulis et al., 2018). Indeed, younger CEOs are substantially more likely to run companies with higher ESG/CSR scores (Borghesi et al., 2014). According to Kang et al. (2007), boards actively promote age diversity to encourage diverse age groups' opinions and as a vital aspect of succession planning. In this vein, the European Commission also advocates boosting age diversity, noting that "increased levels of age diversity may improve the overall level of expertise on the board" as a result of the experiences and knowledge that different age groups bring to the board (European Commission, 2010).

In particular, appointing young directors may introduce different and innovative viewpoints. Tahir et al. (2020) argue that younger board members are more willing to embrace change and face new challenges. Moreover, according to the agency and resource dependence theories, age diversity is crucial in achieving diversity of thought, improving experience and problem-solving abilities and understanding different issues (Van Ness et al., 2010). As a result, age diversity among board members can produce more effective monitoring (Ali et al., 2014), a more balanced decision-making process (Ferrero-Ferrero et al., 2015a, 2015b) and thus better company performance (Arioglu, 2021), including in emerging economies (Mahadeo et al., 2012) and the banking sector (Pathan and Faff, 2013). Based on these considerations, previous studies attribute several positive outcomes to younger boards of directors. The first stream of research documents that younger board members are more likely to enter new markets and areas of business (Li et al., 2017) but not engage in acquisition operations, for which younger CEOs are more likely to be risk-averse (Gormley and Matsa, 2016). Tahir et al. (2020) find that the inclusion of younger board members leads to a high dividend payout policy.

Focusing on CSR, other studies reveal that young board members have a significant positive impact on companies' sustainability performance. Klineberg et al. (1998) document that younger individuals express more concern about environmental issues. Equally, Post et al. (2011) find that environmental CSR increases when firms' board members are younger. Webb's (2004) research reveals that socially responsible (SR) firms have more young directors than non-SR ones. In a more recent work, Ibrahim and Hanefah (2016) show that the level of CSR disclosure is positively influenced by several board characteristics, including the proportion of young directors. Finally, Hafsi and Turgut (2013) discover that the presence of younger directors has a positive impact on firms' social performance.

Overall, a board including younger directors might be better equipped to consider millennials' investment preferences because they are more likely than previous generations to support sustainable products. Indeed, some research shows that younger investors tend to be more socially and environmentally conscious than their parents and are increasingly mobilizing their money for social and environmental issues, especially because of the COVID-19 pandemic. Thus, we hypothesize that:

H3. When the NC is composed of younger directors, banks are less exposed to ESG controversies.

## 2.5 Nomination committees' foreign members and environmental, social and governance performance

Several previous studies analyse the performance impact of foreign members on boards of directors. According to the resource dependence theory, foreign board members provide diverse ideas, experiences and perspectives and increase creativity and innovation (Booth-Bell, 2018). Iliev and Roth (2018) argue that the higher the number of directors with foreign board experience, the faster the board updates its views about optimal governance practices. Moreover, given that foreign directors have weaker linkages with outside executives and major shareholders, they are able to exercise better monitoring of board activity, improving the decision-making process (Matuszak et al., 2019) and the overall company performance.

These implications are particularly important for banking companies, especially for those of systemic importance, which tend to operate in global markets and hence need globalization to reduce their dependence on traditional and domestic areas of business. However, not all studies performed so far find a positive relationship between board internationalization and bank performance. For example, García-Meca et al. (2015), whose investigation focuses on a larger sample of international banks over the period 2004-2010, document that foreign directors exert a negative impact on bank performance, especially in countries with higher levels of investor protection. Adams and Baker (2021) delve deeper and find that the performance impact of foreign directors is affected by their national identity. Focusing on the UK insurance sector, they show that, while North American directors are linked with profitable outcomes, European directors tend to be associated with better solvency. Thus, nationality matters not only for improving financial corporate performance but also for selecting which financial outcome to target. Arnaboldi et al. (2020b) also detect evidence of the importance of differences in national culture. Although these authors find that board internationalization (a greater presence of foreign directors) increases bank risk, this negative outcome disappears in countries that are more open to diversity. Greater convergence is found in research analysing the relationship between foreign directors and banks' efficiency and sustainability performance. In this context, Gulamhussen and Guerreiro (2009), focusing on the Portuguese banking system, report that foreign board members positively affect bank cost efficiency and that a foreign board chair tends to support more prudent credit management risk. Similarly, Matuszak et al. (2019) document that board nationality diversity is an important determinant of banks' CSR reporting in Poland. Indeed, banks with foreign members of the management board tend to disclose more CSR information. These findings are in line with several analyses of non-financial firms (Lau et al., 2016; Alipour et al., 2019; Harjoto et al., 2019). As a result, we state the following and last research hypothesis:

H4. The presence of foreign directors on the NC reduces banks' exposure to ESG controversies.

## 3. Research design and methodology

## 3.1 Sample and data collection

To test our research hypotheses, we focus on all European G-SIBs selected by the EBA over the period 2015-2021. We choose these seven years because the main regulatory initiatives on bank directors' qualifications (ESMA and EBA, 2021) and sustainability goals (United Nations, 2016) were implemented during this period.

The crucial role of G-SIBs lies in the definition proposed by the Financial Stability Board (FSB, Financial Stability Board, 2011), which describes systemic banks as "financial institutions whose distress or disorderly failure, because of their size, complexity and systemic interconnectedness, would cause significant disruption to the wider financial system and economic activity" (De Haan et al., 2015, p. 458). European banks must be classified as G-SIBs as of 2014 in the joint statement released by the FSB and the BCBS to be included in the G-SIB sub-sample.

We focus on European G-SIBs because these banks contribute the most to the systemic risk of the entire financial system (Markose et al., 2012); therefore, bank supervisors are required to provide and guarantee significant regulatory oversight to monitor the risky activities of G-SIBs with respect to non-G-SIBs (Peterson and Arun, 2018).

Data on NCs' composition (percentage of independent board members and the presence of a female chair) and members (nationality, age and CSR skills) are hand-collected from the banks' annual and corporate governance reports. All other governance data and the ESG controversies score are retrieved from the Refinitiv database, whereas banks' financial data are gathered from the BankFocus database. The Eurostat database was consulted to stem the macro control variable "economic sentiment indicator". Finally, for bank-specific variables, the majority of G-SIBs in our sample for each nation contain full time series data. Details on the variables used to test the hypotheses are provided in Table 1. It should be emphasized that, for H1 and H2, the independent variables are NC-independent directors and NC sustainability-educated directors, whereas, for H3 and H4, the independent variables are NC members' age and nationality diversity.

## 3.2 Dependent variable

To test our hypothesis, in this section, we present the dependent variable. We use the ESG controversies score (ESG\_C) from the Refinitiv Eikon database (formerly called Thomson and Reuters). The ESG\_C considers 23 topics related to recent controversies. These are distinguished into the following seven categories: "community", "human rights", "management", "product responsibility", "resource use", "shareholders" and "workforce". The ESG\_C is a percentile score that takes into account litigation or disputes related to ESG issues and ranges between 0 and 100%: companies that present a lower number of controversies will be closer to 100%, whereas those that present zero controversies will have a score exactly equal to 100%. Thus, the higher the ESG\_C, the lower banks' exposure to ESG disputes. To keep the database updated, Refinitiv revises ESG news and controversies continuously, that is, when disputes or scandals occur. Concerning the controversies count, Refinitiv includes all recent controversies in the latest closed fiscal year in the computation process, so no controversy is double-counted. To integrate and account for industry materiality and company size biases, ESG controversies are benchmarked against industry groups. Moreover, the score addresses the market cap bias, which is an issue involving companies with large capitalization. This is linked to their exposure to media and their active scrutiny from stakeholders.

The percentile rank formula is applied as a scoring methodology to determine the ESG\_C based on the following three factors: "How many companies are worse than the current one?", "How many companies have the same value?" and "How many companies have value at all?" (Refinitiv, 2021).

Variables	Symbol	Variable definition	Data source
Dependent variable			
ESG controversies score	ESG_C	A company's exposure to environmental, social and governance controversies and negative events reflected in global media (0–100%). The higher the ESG_C, the lower the exposure to ESG controversies.	Refinitiv
Independent variables			
NC independence	NCInd	The percentage of independent directors serving on the bank's nomination committee at the fiscal year end.	Refinitiv
NC member sustainability	NCSust	Joint membership of NC members of the sustainability/CSR committee (a proxy for NC members' possession of ESG competences).	Hand collected from banks' integrated report or BankFocus
NC member age	NCAge	The average age of nomination committee members.	Hand collected from banks' integrated report or BankFocus
NC member nationality	NCNation	A dummy variable equal to 1 if at least one nomination committee member has a different nationality from the bank.	Hand collected from banks' integrated report or BankFocus
Control variables			
NC female chair	NCWoman_Ch	A dummy variable equal to 1 if the chair of the nomination committee is a woman and 0 otherwise.	Hand collected from banks' integrated report or BankFocus
Board gender diversity	Boardgender	The percentage of female on the board.	Refinitiv
Board size	Boardsize	The number of members who belong to the board of directors of the bank.	Refinitiv
Bank size	Banksize	The natural logarithm of the total assets for banking size.	BankFocus
Return on assets	ROA	The net income by average total assets as the profitability of a bank's assets.	BankFocus
Cost-to-income ratio	CINC	Efficiency ratio: the total operating expenses to total operating income.	BankFocus
TIER 1 ratio	TIER	The percentage of risk-weighted assets on a fully loaded basis as reported by the bank.	BankFocus
Economic sentiment indicator	ECSent	A composite indicator that reflects and represents the judgements and attitudes of producers and consumers of the different components of the economy: industry, services, consumers, construction and retail trade. It is considered as a confidence indicator in the markets as a whole.	Eurostat (European Commission)

Note: In cases in which no identifying information on the gender, age or nationality of NC members was released, the bank's website and other sources such as LinkedIn and BankFocus were used

$$score = \frac{\textit{no. of companies with a worse value} + \frac{\textit{no. of companies with the same value included in the current one}{2}}{\textit{no. of companies with a value}}$$

## 3.3 Independent variables

We include four independent variables in our econometric models. The first is the share of independent directors on the NC (Vafeas, 1999; Ruigrok et al., 2006). It is expressed as the percentage of non-executive board members on the NC in the total number of board members

(NCInd). The second independent variable expresses the joint membership of NC members of the sustainability/CSR committee (NCSust). Indeed, companies with a CSR sustainability committee are seen as more ESG-compliant (Helfaya and Moussa, 2017; Cucari et al., 2018; Hussain et al., 2018). In this study, to test our second hypothesis, we use an NC member's joint membership of the CSR sustainability committee as a proxy for the possession of ESG competencies. This is a dummy variable equalling 1 if a member of the NC is also a member of the sustainability or CSR committee and 0 otherwise. For those banks that have not set up a sustainability or CSR committee (or whose data on the CSR competencies of directors are not available from other sources such as CVs), a missing value has been assigned.

The last two independent variables are related to specific qualities of the NC: age and nationality. Specifically, we include the average age of NC members (NCAge) and a dummy variable accounting for NC members' nationality that is equal to 1 if at least one NC member has a different nationality from the bank and 0 otherwise (NCNation). This allows us to verify the degree of heterogeneity in terms of nationality and test H4.

3.3.1 Control variables. To avoid model misspecification, we control for additional variables that could influence the ESG\_C. Following the corporate governance stream of research, we add a gender component to our model; that is, we control for the presence of female board members (Boardgender) by including their percentage in the total number of directors on the board (Glass et al., 2016; Alazzani et al., 2017; Cucari et al., 2018). Moreover, we control for the gender of the NC chair (NCWoman\_Ch), including a dummy variable that takes the value of 1 if there is a female chair and 0 otherwise (Huang, 2013; Glass et al., 2016). It is widely believed that the inclusion of women on boards improves banks' ability to manage and mitigate risks as well as to take a more conservative position on economic decisions (Palvia et al., 2015). Therefore, regarding the positive relationship between sustainability and low riskiness, the presence of a female CEO can have a beneficial effect on banks, enabling them to reach sustainability targets (Tapver et al., 2020).

Board size is also included as a control variable (Boardsize). The literature on this topic remains mixed because, on the one hand, large boards might be more disorganized and thus inefficient but, on the other hand, a larger board can take advantage of different information and a broader pool of skills and knowledge (Post et al., 2011).

Moreover, we retrieve several bank-specific financial variables from the BankFocus database. We include the bank's total assets as a proxy for size (Banksize). Because large companies are more exposed to public scrutiny and have more resources available for sustainability efforts than smaller companies, they should be more concerned about their ESG standards (Kiliç et al., 2015; Alberici and Querci, 2016). Because banks with a higher level of profitability are more likely to invest in ESG projects and initiatives (Hussain et al., 2018), in our model, we account for bank viability by adding the return on assets (ROA). We also control for banks' core equity assets, namely, Tier 1 (TIER) and the cost-to-income ratio for efficiency (CINC). Finally, we incorporate a variable to control for country-firm-specific factors, namely, the economic sentiment indicator (ECSent) created by the European Commission based on economic sentiment surveys. The surveys are carried out in all member states of the European Union, and the goal of the indicator is to gain insights into economic agents' attitudes towards both the demand and the supply side of the economy. Consumers and businesses may increase consumption and production if they are optimistic about the current and future economic conditions (Gelper and Croux, 2010). As ESG controversies can also depend on the confidence climate in the markets, we felt that it was appropriate to use this variable as well.

## 3.4 Data analysis

To investigate the relationship between the NC characteristics and the ESG\_C, we estimate the following panel data models with fixed effects, clustering heteroscedastic standard errors at the bank level to account for the serial correlation of the dependent variables for each bank:

$$\begin{aligned} \textit{ESG\_C}_{\textit{it}} &= \alpha_i + \beta 1 N C Ind_{\textit{it}} + \beta 2 N C S ust_{\textit{it}} + \beta 3 N C A ge_{\textit{it}} + \beta 4 N C N a tion_{\textit{it}} + \beta 5 N C W oman\_Ch_{\textit{it}} \\ &+ \beta 6 B o a r d g e n d er_{\textit{it}} + \beta 7 B o a r d s i z e_{\textit{it}} + \beta 8 B a n k s i z e_{\textit{it}} + \beta 9 R O A_{\textit{it}} + \beta 10 C IN C_{\textit{it}} \\ &+ \beta 11 T IER_{\textit{it}} + \beta 12 E C S e n t_{\textit{it}} + \delta_t + \varepsilon_{\textit{it}} \end{aligned} \tag{1}$$

By using panel regression, we are able to analyse data over a longer period. Indeed, this methodology has been implemented in recent banking studies (Birindelli et al., 2018; Galletta et al., 2021). We also estimate panel data models in which all the explanatory variables are lagged by one year to address endogeneity.

#### 4. Results

## 4.1 Descriptive analysis

Table 2 presents the selected variables' mean, standard deviation, minimum and maximum. The mean of the ESG\_C is 56%. Because companies with no controversies will obtain a score of 100%, a mean of 56% indicates that the selected banks have medium exposure to ESG controversies. NC independence has a mean of 80%, indicating that there is a high presence of NC members who are non-executive board members. The joint membership of NC members of the sustainability/CSR committee on average shows a value of 0.15. The average age of NC members is 61, indicating that the composition of NCs is affected by a greater presence of older directors than younger ones. In addition, more than half of the NC directors have a different nationality from the country in which the bank is headquartered. which could be a positive factor in terms of the degree of board heterogeneity in the influence of the NC decision-making process. The average of female CEOs on the NC is 0.20, which shows a low presence of women on the selected banks' board committees. The same applies to board gender diversity, which on average is 35%. Regarding banks' profitability measure, the ROA presents a minimum negative value, which underlines the impact of the economic distress faced by banks in the previous years.

## 4.2 Correlation

Before carrying out our estimation, we calculate the correlations between the variables implemented in the econometric model. The results are displayed in Table 3. The correlation coefficients with stars are significant at the 5% level and mostly < [0.5], suggesting a smallor medium-strength correlation. Therefore, a severe multicollinearity issue does not exist in our data. More specifically, the correlation matrix coefficients demonstrate that the banks' ESG\_C is significantly and negatively associated with the independence, average age and nationality of NC members. Moreover, it shows that banks with a larger size by total assets should have fewer ESG controversies. Conversely, the ESG\_C is significant and positively associated with bank profitability. From the correlation matrix values, we can affirm that, in our regression model, multicollinearity does not occur between the independent variables. This result is corroborated by the variance inflation factor (VIF) test computed on the pooled ordinary least squares (OLS) version of our models (Table 3, column VIF).

## 4.3 Regression results

The current study performs an OLS regression analysis to test the relationship between NC characteristics and ESG controversies using the score computed by Refinitiv for the involvement of banks in ESG disputes as a proxy (Table 4). The regression results shown in Table 4 can be interpreted by following the six main models. Models (1), (2) and (3) display the results of the fixed panel data models, whereas Models (4), (5) and (6) present evidence from the panel data models in which all the variables are lagged by one year to address the endogeneity. Note that we winsorize all the bank variables at the 1st and 99th percentiles to

Table 2 Descrip	tive statistics				
Variables	Obs	Mean	Std. dev.	Min	Max
ESG_C	153	55.64	36.88	0.44	100
NCInd	153	80.01	30.26	0	100
NCSust	153	0.15	0.36	0	1
NCAge	153	61.34	3.95	53.42	72.2
NCNation	153	0.71	0.45	0.00	1.00
NCWoman_Ch	151	0.20	0.40	0.00	1.00
Boardgender	153	35.21	8.68	13.33	54.55
Boardsize	153	14.87	3.85	6.00	24.00
Banksize	153	20.34	0.75	19.11	21.63
ROA	153	0.40	0.31	-0.51	0.99
CINC	153	64.63	11.95	38.07	93.86
TIER	153	16.09	3.39	11.43	28.7
ECSent	153	93.69	27.37	-6.4	111.94

Notes: ESG\_C is the company's exposure to environmental, social and governance controversies and negative events reflected in global media (0-100%); NCInd is the percentage of independent directors serving on the bank's nomination committee at the fiscal year end; NCSustis the joint membership of NC members of the sustainability/CSR committee; NCAge is average age of nomination committee members; NCNation is a dummy variable equal to 1 if at least one nomination committee member has a different nationality from the bank and 0 otherwise; NCWoman\_Ch is a dummy variable equal to 1 if the chair of the nomination committee is a woman and 0 otherwise; Boardgender is the percentage of female on the board; Boardsize is the number of members who belong to the board of directors of the bank; Banksizeis the natural logarithm of the total assets for banking size; ROA represents the profitability; CINC is the efficiency ratio; and TIER is the percentage of risk-weighted assets on a fully loaded basis as reported by the bank. ECSent is a composite indicator produced by the Directorate General for Economic and Financial Affairs (DG ECFIN) of the European Commission (https://ec.europa.eu/eurostat/databrowser/view/teibs010/ default/table?lang=en#:~:text=The%20economic%20sentiment%20indicator%20(ESI,EU%20and %20euro%20area%20levels).

mitigate the impact of outliers. Standard errors are reported in parentheses. In all the regressions, we cluster the standard errors at the bank level.

In particular, Model (1) presents the results of the baseline regression model, in which, together with all the independent variables, the percentage of NCWoman\_Ch is controlled. The dependent variable (ESG\_C) shows that the regression effects of NCSust on the ESG C are significant at the 10% level because the p-value is <0.1. The coefficient of NCAge is negative and statistically significant at the 5% level, meaning that when the average age of the NC members increases, the ESG score decreases. Conversely, the regression coefficients of NCInd and NCNation are not statistically significant. Moreover, there is no significant impact of the control variables on ESG\_C. The goodness-of-fit indicator for this econometric model shows a partial fit because the adjusted R-square is approximately 0.21. Model (2) displays the results for the baseline model in which Boardgender is controlled instead of NCWoman\_Ch. The regression results for Model (2) exhibit similar results, in which NCSust remains positive and with higher statistical significance with respect to ESG\_C. The coefficient associated with NCAge remains negative and statically significant. In addition, even in this case, none of the control variables presents statistically significant coefficients, whereas the adjusted R-squared has decreased (0.19). Model (3) presents the estimation of the full baseline model, confirming the previous results that NCSust contributes to improving ESG\_C, whereas NCAge lowers ESG\_C at the 5% significance level, resulting in a lower bank exposure to ESG disputes.

Regressions (4), (5) and (6) involve panel data with lagged independent variables and bank-specific fixed effects. As stated previously, we investigate whether our results are driven by endogeneity. Thus, we add the lag of one year to both the independent variables of interest and the control variables. The regression results of Model (4) show that the

Table 3 Corre	elation m	atrix											
Variables	VIF 1	2	3	4	5	6	7	8	9	10	11	12	13
1. ESG_C	1												
2. NCInd	3.09 -0.2	.0											
3. NCSust	1.42 -0.1	3 0.09	1										
4. NCAge	1.20 -0.1	5 0.22	0.03	1									
5. NCNation	2.20 -0.3	7 0.42	0.23	0.18	1								
6. NCWoman_Ch	1.43 0.0	7 -0.34	0.20	0.01	-0.16	1							
7. Boardgender	1.69 -0.1	2 -0.32	0.24	-0.12	-0.13	0.14	1						
8. Boardsize	2.16 -0.1	1 0.20	0.10	0.12	-0.10	0.11	-0.07	1					
9. Banksize	2.27 - 0.5	6 0.35	0.39	0.31	0.51	0.03	0.16	0.23	1				
10. ROA	2.77 0.4	6 -0.27	-0.04	-0.06	-0.31	0.05	0.19	-0.28	-0.36	1			
11. CINC	4.11 - 0.4	3 0.57	0.01	0.08	0.30	-0.18	-0.17	0.48	-0.35	-0.71	1		
12. TIER	2.87 0.1	1 -0.62	-0.22	-0.23	-0.27	0.08	0.35	-0.51	-0.37	0.28	-0.47	1	
13. ECSent	4.03 - 0.2	0.74	0.12	0.26	0.53	-0.37	-0.34	0.31	0.41	-0.25	0.53	-0.68	1
MEAN VIF	2.44												

Notes: ESG\_C is the company's exposure to environmental, social and governance controversies and negative events reflected in global media (0-100%); NCInd is the percentage of independent directors serving on the bank's nomination committee at the fiscal year end; NCSust is the joint membership of NC members of the sustainability/CSR committee; NCAge is average age of nomination committee members; NCNation is a dummy variable equal to 1 if at least one nomination committee member has a different nationality from the bank and 0 otherwise; NCWoman\_Ch is a dummy variable equal to 1 if the chair of the nomination committee is a woman and 0 otherwise; Boardgender is the percentage of female on the board; Boardsize is the number of members who belong to the board of directors of the bank; Banksize is the natural logarithm of the total assets for banking size; ROA represents the profitability; CINC is the efficiency ratio; and TIER is the percentage of risk-weighted assets on a fully loaded basis as reported by the bank. ECSent is a composite indicator produced by the Directorate General for Economic and Financial Affairs (DG ECFIN) of the European Commission (https://ec.europa.eu/eurostat/databrowser/view/teibs010/ default/table?lang=en#:~:text=The%20economic%20sentiment%20indicator%20(ESI,EU%20and %20euro%20area%20levels). Coefficients in bold are significant at 5%

lagged coefficient of NC independence, L.NCInd, is negative and statistically significant at the 5% level. The coefficient associated with the lag of NC members who also belong to the sustainability committee (L.NCSust) and L.NCAge confirms the previous results, whereas the coefficient of L.NCNation does not show any significance. When considering L.NCSust, the magnitude of the coefficient is even higher. Among the control variables, the lagged terms of bank profitability and efficiency, namely, L.ROA and L.CINC, are positive and statistically significant. The macroeconomic control, L.ECSent, presents a negative and significant coefficient. The outcomes of Model (5), which uses L.Boardgender in the set of control variables, are similar to those of Model (4). Finally, Model (6) presents the panel data results for the full model [equation (1)], confirming the previous findings. Indeed, L.NCInd and L.NCAge are negative and statistically significant with respect to ESG\_C; the sign between these two variables is always negative. However, L.NCSust and L.NCNation positively affect ESG\_C at the 1% and 5% levels of significance, respectively. Among the control variables, L.ROA, L.CINC and L.TIER also show statistically significant coefficients. However, neither the presence of a female chair of the NC nor the board gender diversity affect the ESG\_C. For the last three specification models, the coefficient associated with the macroeconomic specific control, ECSent, shows a negative significant impact on our dependent variable. Overall, the adjusted R-squared has improved (0.30).

## 5. Discussion

The study was carried out over seven years (2015-2021) to investigate the relationship between the NC features and the ESG\_C of the European G-SIBs. The independence, CSR skills, age and nationality of NC appointees were all carefully considered. The ESG\_C

Table 4         Regression results	n results					
Models	ESG_C (1)	ESG_C (2)	ESG_C (3)	ESG_C (4)	ESG_C (5)	ESG_C (6)
Independent variables NCInd	s 0.0209(0.1361)	0.0432 (0.1816)	0.0300 (0.1484)	\\ \text{\frac{1}{2}} \\ \text{\frac{1}} \\ \text{\frac{1}{2}} \\	0.0000	707 00 ° 00 00 00 00 00 00 00 00 00 00 00 0
NOSust	8.9793* (4.1422)	11.5416** (5.1498)	9.0333* (4.0841)	-0.5034 (0.2456) -0.7046*** (0.0065)	-0.4359 (0.2122)	-0.5366 (0.2649) -0.5486 (0.2649)
L.N.C.Sust N.C.Age	-2.8695** (1.0824)	-2.5239* (1.2764)	-2.8955** (1.0808)	40.7240 (0.0000)	40.7030 (0.4303)	46.3017 (7.9004)
L.NCAge NCNation L.NCNation	0.1787 (9.5830)	-1.8806 (10.1505)	0.4137 (9.6363)	-2.2896** (1.0155) 15.0345 (9.1534)	-1.6150 (1.7370) 4.2211 (11.7520)	-2.4259** (1.0104) 17.4640* (8.8168)
Control variables NCWoman_Ch	-19.1305 (10.9752)		-19.7664 (12.1223)			
L.NCWoman_Ch Boardgender		-0.0714 (0.5604)	-0.1557 (0.6189)	-4.9145 (9.8968)		-6.3775 (10.2213)
L.Boardgender					-0.4152 (0.6216)	-0.5108 (0.6016)
Boardsize L.Boardsize	0.8400 (1.4886)	0.8280 (1.7224)	0.8304 (1.4990)	-0.8678 (1.5472)	-1.0683 (1.7938)	-0.9343 (1.5747)
Banksize L.Banksize	-4.4658 (31.5078)	-3.9897 (29.4350)	-1.7562 (29.6875)	-27.3678 (38.6240)	-10.3926 (34.0693)	-20.3550 (36.2818)
ROA	6.3158 (11.8500)	4.6262 (10.0839)	7.3473 (11.5528)	***************************************		
L.ROA CINC	-0.1521 (0.6016)	-0.1378 (0.5447)	-0.1308 (0.5664)	27.3428 (14.0544)	24.4607 (13.5732)	31.1352** (13.8037)
L.CINC			***************************************	1.7351*** (0.5066)	1.6441*** (0.3563)	1.8000*** (0.4719)
L.TIER	-1.5243 (0.8515)	-0.9583 (0.9831)	-1.5809 (0.8682)	4.7076* (2.4675)	4.6583** (1.9652)	4.5216* (2.4465)
ECSent	0.8133 (0.4723)	0.7927 (0.4931)	0.8402* (0.4628)	***************************************		*(0
C.ECSent Observations	151	153	151	-1.1251 (0.5562) 136	-0.8238 (0.7736) 136	-1.0129 (0.5892) 136
R-adj	0.21	0.19	0.21	0.30	0.29	0.29
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Time-fixed effects and bank-fixed effects are included in the regressions. The p-values are computed using heteroskedasticity-robust standard errors clustered for banks and are presented in parentheses. \*, \*\* and \*\*\* represent statistical significance at the 10%, 5% and 1% level, respectively

shows banks' exposure to non-financial litigation reflected in global media. Notably, the higher the ESG\_C, the lower banks' exposure to ESG disputes. The current study's findings are validated by the existing literature, which includes the "agency theory" and "resource dependence theory", both of which give significant support to the main results.

H1 predicts a relationship between NCInd and the extent of banks' exposure to ESG controversies, although the sign is uncertain. In other words, according to the existing literature, board independence can affect ESG controversies both positively and negatively. Our results show a negative relationship: the coefficient related to NCInd is negative and significant in two models (Models 4 and 6; see Table 4). This result is in line with the literature (Birindelli et al., 2018; Tapver, 2019; Aluchna et al., 2020). It is likely that an excessive number of independent board members increases banks' exposure to ESG controversies. An overabundance of independent board members is probably selfdefeating because it reduces the expertise, experience and reputation offered by insiders, who serve as essential components in boosting the bank's sustainability performance (Birindelli et al., 2018).

H2 predicts a negative relationship between the percentage of sustainability-educated directors on the NC (NCSust) and the banks' ESG\_C. In this case, the hypothesis is confirmed. In all the specification models (Table 4), the joint membership of the nomination and sustainability committees (NCSust) as a proxy for NC members' CSR knowledge which allows them to implement more appropriate decisions regarding ESG - is significant and positively related to the ESG\_C. Indeed, whenever an NC member also belongs to the sustainability committee, this will increase the ESG C in the sense of having fewer ESG controversies. This result is in line with the stream of literature that supports the theory that board committee members with multiple skills may have a beneficial impact on bank performance and a strong inclination towards a mindset of sustainable development (Jensen, 1993; Anderson et al., 2011; Minton et al., 2014).

Furthermore, we confirm H3, which predicts a positive relationship between NCAge and the ESG\_C. In our regression results (Models 2 to 6), NCAge shows a negative and significant coefficient. This means that an increase in the average age of banks' NC members leads to an increase in banks' exposure to ESG controversies. Although senior directors may have more expertise, younger directors are more likely to accept change and implement new creative policies linked to sustainability investments (Tahir et al., 2020). According to the main literature review on the topic, older board members are more risk-averse than younger proactive members, who in turn are more inclined towards the short-term results of the banks at any level of risk (Zhou et al., 2019).

Finally, H4 is confirmed: greater heterogeneity of the NC positively influences the ESG\_C in the sense of having fewer ESG controversies (see Table 4). Indeed, a board committee that presents members with a nationality different from the country where the bank is headquartered can benefit from different backgrounds, cultures, skills, experiences and education. These characteristics, unique to each member, can merge in the committee's final decision by highlighting different points of view and simplifying the decision-making process (Harjoto et al., 2018). This result is also in line with the stream of literature that supports the thesis that heterogeneous boards ensure stronger oversight of board activities, boosting decision-making and overall firm performance because of their foreign experience and fewer ties to significant shareholders (Matuszak et al., 2019).

## 6. Additional analysis for the development of future research

To make our results on the relationship between NCs and ESG controversies more robust and consistent, we perform another empirical analysis on whether NCs (characteristics and composition) affect the appointment of more ESG-friendly directors on the board. In this way, we explicitly investigate the channel of director nomination process to link NCs and ESG. We are aware that this is an important challenge on which future academic research will certainly have to focus to a greater extent.

If, on the one hand, NCs members are simultaneous members of the board of directors and as such they contribute to the bank's decision-making process and all strategic decisions (including the sustainability area), on the other hand, the influence exerted by NCs members on ESG policies is primarily "indirect", in that it does this indirectly by appointing directors who are more ESG-friendly. At the same time, it also may be the case that the increased possibility of such appointments by NCs makes the behaviour of the incumbent directors (who want to be reappointed) more ESG-friendly. These relationships are based on the similarity-attraction paradigm that states that individuals tend to better interact with other individuals who have similar characteristics in terms of behaviour, beliefs and values. Therefore, we expect that NC members who are ESG-oriented tend to appoint directors on the board who are themselves ESG-oriented. By performing this further analysis, we add another piece of evidence to the existing empirical literature on the relations between NCs and board composition (Ruigrok et al., 2006; Kaczmarek et al., 2012; Hutchinson et al., 2015).

The findings of the regressions related to the characteristics of the NCs to their influence on modification in board composition are presented in Table 5. All data on board members characteristics are manually collected from banks' annual reports (from 2015 to 2021), except the percentage of independent directors retrieved from Refinitiv. We use different methodologies (OLS and probit) and we use variables that indicate the change in the board characteristics, including "Change in the number of independent directors" and "Change in board age", to examine how the members of an NC affect board composition. We develop variables that represent the shift in board features from year to year, much like Westphal (1998) and Ruigrok et al. (2006). Furthermore, we consider the binary dependent variable "Presence of one foreign director", which takes the value of 1 if at least one board member has a different nationality from the bank, and 0 otherwise.

More specifically, the number of independent directors serving on the board in a given year as compared to the prior year is used to determine the change in independent directors. Similarly, the change in the average age of directors between one year and the previous year is reflected in the average computed based on the difference in the date of birth subtracted from the previous year.

Following the approach of Ruigrok et al. (2006), we test if the change variables are likely to be linked to an NC's composition in the prior year to avoid the double-counting of directors who were appointed to both the board of directors and the NC. Columns 1 and 2 (Table 5) show the results of the OLS regressions, where NCInd and NCAge are predictors of board independence and of change in board age, respectively. All the estimations include time, country dummies and control variables at the bank level. The bank control variables included in the models are size (natural logarithm of total assets - Banksize), economic performance (ROA) and capitalization (TIER).

Table 5 (column 1) corroborates previous findings by proving that the independence of the NC positively affects the change in the number of independent directors on the board. Moreover, when the NC average age increases, this leads to a decrease in the overall age of directors on the board (Table 5, column 2). In addition, there is a positive and significant relationship between the presence of foreign directors on the NC and foreigners on the board. Indeed, the coefficient of L\_NCNation (Table 5, column 3) implies the likelihood that there will be more foreign directors on the board as a result of foreign directors serving on the NC. Finally, we also verify whether the presence of sustainability-educated directors on the NC predicts the appointment of sustainability-educated directors on the board. However, this regression did not show any significant results 1. Additionally, in a similar manner to Katmon et al. (2019), the findings might offer policymakers helpful insights when establishing rules on boards and sub-committees' diversity.

	(1)	(2)	(3)
Models	Change in the number of independent directors OLS	Change in board age OLS	Presence of one foreign directo Probit
L.NCInd	0.1567** (0.0705)		
L.NCAge		$-0.1620^{*}(0.0827)$	
L.NCNation			1.3015* (0.7310)
L.NCNation			
Banksize	1.7638 (2.6963)	-3.4565 (4.1830)	1.7472** (0.6817)
ROA	-0.9815 (7.0454)	0.2952 (1.6028)	-7.5310*** (2.0537)
TIER	1.3034* (0.7245)	-0.0410 (0.1701)	0.1217 (0.1123)
Observations	139	147	99
Time Dummies	Yes	Yes	
Fixed Effects	Yes	Yes	
R2	0.05	0.04	

Notes: Time-fixed effects and bank-fixed effects are included in the regressions. The p-values are computed using heteroskedasticityrobust standard errors clustered for banks and are presented in parentheses. \*, \*\* and \*\*\*represent statistical significance at the 10%, 5% and 1% level, respectively

## 7. Conclusions, limitations and implications of the research

In recent years, the topic of board diversity has attracted greater interest from scholars, regulators and practitioners. In this vein, special focus is placed on the relationship between this issue and firms' financial outcomes and CSR (Ferrero-Ferrero et al., 2015a; García-Meca et al., 2015). At the same time, additional emphasis is placed on the sub-committees and their role, functioning and impact on firms' performance (Lam and Lee, 2012; Mans-Kemp and Viviers, 2019; Chaudhry et al., 2020).

This study investigates whether a relationship exists between NC composition and banks' ESG\_C in all European G-SIBs over the period from 2015 to 2021. The objective of the analysis is to shed light on the importance of the NC in reducing the likelihood of a bank incurring ESG disputes. We do not consider the establishment of the NC per se, but its effective functioning and the qualities of its members as a key attribute for fulfilling objective assessment, improving board effectiveness, controlling executives' behaviour and monitoring operations in the duty of care. Indeed, the monitoring capability of the board of directors is the basis of a firm's internal governance mechanism for disciplining corporate management.

Among the main results, we find that the ESG\_C can be reduced when the NC members have specific skills, particularly when some members also belong to the sustainability committee. In addition, there is an inverse relationship between the independence of NC members and the ESG\_C. Moreover, we provide positive evidence that, as the average age of NC members increases, the ESG\_C reduces, leading to more controversies. A higher average age of the NC acts as a detrimental component of the ESG\_C, which might instead improve when in the presence of young and proactive members who are more involved in sustainability investments as well as applying social and environmental practices as a new bank business strategy. Nevertheless, we find evidence of the positive effect of NC foreign directors on the ESG\_C. Indeed, when the percentage of NC members who belong to a different country is greater, the decision-making process may be boosted in terms of monitoring and managing the creation of ESG disputes. However, we do not find significant evidence regarding the crucial role of the gender composition of the NC on ESG controversies.

Our implications are particularly useful during periods such as the current one, when there is growing attention on both banks' corporate governance efficiency and social and environmental issues. According to Kaczmarek et al. (2012), an important influence on corporate sustainability outcomes may be attributed not only to the composition of the whole board but also to its sub-committees. Specifically, the NC in a bank supports the board of directors in the process of appointing directors and the presentation of the list of directors by the expiring board. An NC who is already part of the board and oriented towards ESG issues has a greater predilection for selecting future directors with specific ESG skills. Furthermore, the scrutiny of the NC and the predisposition to prefer figures with ESG characteristics is then reflected in the future board of directors. Indeed, this paper provides evidence that the NC is a determinant of a well-functioning board of directors by reducing ESG disputes and implies the importance of ESG disclosure for banking institutions.

Despite making significant contributions to theoretical and practical fields, this study suffers from the main limitation of focusing only on the European G-SIBs. Therefore, future research could extend the sample by including other sistemically important financial institutions.

#### Note

1. The lack of significance of the data depends on a multicollinearity problem, which in turn is also linked to multiple missing values. Indeed, in contrast to the data on the other characteristics of boards/NCs, those on the ESG skills of directors are more difficult to identify because of two critical issues: CVs do not generally report such information; and most of the banks surveyed have not set up a sustainability committee, which we consider a proxy for the possession of ESG skills by directors.

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