# WOMEN ON BANK BOARDS AND RISK-TAKING: A CROSS-COUNTRIES ANALYSIS ON THE MODERATING ROLE OF MASCULINITY

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### Abstract

This study examines the effects of board gender diversity on a bank's risk by applying a moderate multiple regression analysis on a dataset covering the years 2008-2017 and comprising 110 banks from Germany, Italy, Spain, and Switzerland. Masculinity, a country-level cultural dimension incorporating the behavioural expectations surrounding men and women in a society, is used as a moderator. Results suggest that high country-level masculinity stresses the risk-aversion of a bank's women directors, therefore compromising financial performance. To mitigate the negative effects of high country-level masculinity, this paper provides several suggestions. First, banks should change their stereotypical depiction of the "ideal worker". Second, banks should question the cultural motives underpinning the entrance of women directors in the "boy's club". Last, banks should create a more egalitarian workplace where the distribution of rewards does not strengthen the privileges of the established elites.

**Keywords:** Bank, Board Diversity, Corporate Governance, Gender Diversity, Risk, Women

**Authors' individual contribution:** Conceptualization – C.G. and R.S.; Methodology – R.S.; Validation – R.S.; Formal Analysis – R.S.; Investigation – R.S.; Resources – R.T.; Data Curation – R.S.; Writing - Original Draft – R.S. and R.T.; Writing - Review & Editing – R.S.; Visualization – R.S. and R.T.; Supervision – C.G.; Project Administration – C.G.

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#### 1. INTRODUCTION

In recent years, gender diversity has been attracting the interest of scholars, practitioners and policymakers (Baker, Pandey, Kumar, & Haldar, 2020; de Cabo, Gimeno, & Nieto, 2012; Terjesen, Aguilera, & Lorenz, 2015). Answering the call for more genderdiverse and ethical workplaces, governments have enacted gender quota laws to mitigate "the glass ceiling effect" (Cotter, Hermsen, Ovadia, & Vanneman, 2001; Makaula, Bozas, Munapo, & Naidoo, 2015; Pastore & Tommaso, 2016; Salvaj & Kuschel, 2020) affecting industries like that of banking (Jamali, Safieddine, & Daouk, 2006; Mathur-Helm, 2006). However, even though justified from a social justice perspective, academics and businesspeople should not avoid questioning the economic effects of diversity (Adeabah, Gyeke-Dako, & Andoh, 2019; de Cabo et al., 2012; Fan, Jiang, Zhang, & Zhou, 2019; Ferrary, 2017; García-Meca,



García-Sánchez, & Martínez-Ferrero, 2015; Liao, Loureiro, & Taboada, 2019; Owen & Temesvary, 2018). Is gender diversity in banking profitable, besides being ethical? To answer this question, the present paper examines the effects of board gender diversity on a bank's risk and discusses the link with bank performance.

Risk is a critical component in a bank and in the banking system, since it influences financial performance, promotes systemic risk and determines major consequences for taxpayers (Gulamhussen & Santa, 2015) because the costs of banking failures are high (King, 2019), the interactions between banks and the real economy are taking on new and broader dimensions (Ghaffour, 2017), and European banking markets have become more integrated (Goddard, Molyneux, Wilson, & Tavakoli, 2007).

Even if the discussion is still ongoing (Nelson, 2016), there is evidence that women are more risk-averse than men financial in the decision-making domain (Belhaj & Mateus, 2016; Charness & Gneezy, 2012; Gong & Yang, 2012; Halko, Kaustia, & Alanko, 2012). Women directors in financial institutions can reduce the likelihood of a bank rescue or the recourse to central bank liquidity (Altunbas, Manganelli, & Marques-Ibanez, 2011). In fact, women directors are likely not to advocate aggressive credit growth (Del Prete & Stefani, 2015), but rather to induce a bank to hold more conservative levels of capital (Palvia, Vähämaa, & Vähämaa, 2015; Skała & Weill, 2018). Such business conduct may be beneficial for a risky bank in turbulent times. However, a less risky bank may compromise its income statement in terms of net interest income, mortgage and brokerage fees, and of income stemming from wealth management and trading operations. Therefore, nding which factors may stress the services understanding risk-aversion of a bank's women directors is relevant for academics, policymakers, and practitioners alike.

The role of national culture and its effects on a bank's risk-taking has received increased attention in banking studies in recent years (Ashraf, Zheng, & Arshad, 2016; Ashraf & Arshad, 2017; Bussoli, 2017; Illiashenko & Laidroo, 2020; Kanagaretnam, Lim, & Lobo, 2011; Mourouzidou-Damtsa, Milidonis, & Stathopoulos, 2019; Sist & Kalmi, 2017). A nation's culture is among the factors affecting the behaviour individuals both inside and of outside an organization and results from the interactions of several cultural dimensions. Masculinity is a country-level cultural dimension incorporating the behavioural expectations surrounding men and women in a society that can further stress the risk-aversion of women directors in banks (Doss & Hopkins, 1998; Hofstede, 1984; Hofstede, Hofstede, & Minkov, 2010). This happens for two reasons. First, men and women have different work-related aspirations and behaviours. Women prefer to cultivate harmonious relationships with their superiors and peers, and when a conflict arises, they are likely to negotiate to preserve harmony. On the other hand, men believe career advancement, competitiveness, and earnings to be more important. In countries with high masculinity, competitive and assertive behaviours in the workplace are acceptable and there are few women in professional occupations (Ashraf et al., 2016; Hofstede et al., 2010). Second, a bank's women directors in masculine countries must confront work-related

stereotypes and obstacles in their day to day work (Borghans, Heckman, Golsteyn, & Meijers, 2009; Croson & Gneezy, 2009; Neelakantan, 2010; Özbilgin & Woodward, 2004; Watson & McNaughton, 2007). Therefore, it may be worth testing if, in countries with high masculinity, a bank's women directors are likely to behave more conservatively in the financial decision-making domain.

The study sought to answer the following specific research question: How does masculinity affect the relationship between a bank's board diversity and risk-taking? By applying a moderate multiple regression analysis on a sample of 110 banks from Germany, Italy, Spain, and Switzerland, the present pilot study suggests that high country-level masculinity stresses the risk-aversion of a bank's women directors, therefore compromising financial performance. Previous banking literature has largely overlooked how masculinitv affects bank's risk-taking а (Kanagaretnam et al., 2011; Mourouzidou-Damtsa et al., 2019; Sist & Kalmi, 2017). In fact, most of the published literature addressing the economic effects of masculinity refers to listed companies and not to banks (Arena et al., 2015; Li & Harrison, 2008; Mukarram, Ajmal, & Saeed, 2018; Sila, Gonzalez, & Hagendorff, 2016). The few banking studies available suffer from several limitations. First, they use small samples and investigate single countries (Adeabah et al., 2019) or single cultural clusters (Abou-El-Sood, 2019; Elbahar, 2019). Second, they concentrate on masculine industries, not on masculine countries (Arena et al., 2015). Third, they only test whether there is a positive association between national levels of masculinity and bank risk-taking (Ashraf et al., 2016; Ashraf & Arshad, 2017; Illiashenko & Laidroo, 2020), thus implying that country-level masculinity promotes higher of financial risk-taking regardless the decision maker's sex (Meier-Pesti & Penz. 2008).

This pilot cross-country study advances the current academic debate by focusing on banks and by observing the effects of board gender diversity on a bank's risk and, in turn, on performance and by using country-masculinity as a moderator. Since results are consistent across cultural contexts, subsequent studies should not overlook the moderating role of masculinity.

To mitigate the negative effects of high country-level masculinity, this paper provides several suggestions. First, banks should change their stereotypical depiction of the "ideal worker". Second, banks should question the cultural motives underpinning the entrance of women directors in the "boy's club". Last, banks should create a more egalitarian workplace where the distribution of rewards does not strengthen the privileges of the established elites.

This paper has been divided into five sections. Section 1 summarizes extant literature on the relationship between a bank's board gender diversity and risk-taking and on the cultural dimension of masculinity and presents two testable hypotheses. Section 2 describes the sample selection and the data analysis processes and discusses the model's dependent, independent, moderating, and control variables. Section 3 presents the results of the analyses performed. Section 4 suggests how banks can create a more gender-mature workplace. Sections 5 and 6 conclude and outline several future research avenues.

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#### 2. LITERATURE REVIEW

#### 2.1. Board gender diversity and a bank's risk-taking

Behavioural psychology studies have found that, on average, women are more risk-averse than men (Powell & Ansic, 1997). A noteworthy study is that of Borghans et al. (2009), who asked a cohort of 347 students to bet on one colour of the balls in an urn and then to give a minimum price at which they would sell the bet. Interestingly, Borghans et al. (2009) noted that, even though men and women equally value marginal changes in ambiguity, women appeared more risk-averse than men even after having controlled for several psychological traits. Therefore, the behavioural differences between men and women are not because of ambiguity framing, since women initially respond to ambiguity more favourable than men, but because of gender differences.

Such behavioural differences also persist in the financial decision-making domain. Neelakantan (2010), by matching the moments of a model of individual portfolio choice with the data on individual retirement accounts (IRAs) retrieved from the Health and Retirement Study (HRS), found that women are more risk-averse than men and that the difference in risk tolerance between men and women can account for around 10% of the gender difference in accumulated wealth. When given the same amount of wealth and excluding the gender gap income, the average men would invest 64% of his wealth in stocks, compared with the 59% of the average women. Their results corroborate those of Watson and McNaughton (2007). Even though it is still unclear if previous findings hold true at the individual level or at the aggregate level (Nelson, 2016), gender is still a strong predictor of risk-taking among women in finance careers, also in presence of a significant personal and professional experience (Halko et al., 2012). In investment decisions, gender is still determinant, even after having controlled for the amount of investment (Estes & Hosseini, 1988).

Looking at the banking industry, few studies have focused on how the alleged risk-aversion of women directors may affect a bank's risk-taking. One explanation is that the risk-taking behaviour of banks is a topic that has gained attention mostly after the recent financial turmoil (Laeven & Levine, 2009). Nonetheless, the financial crisis made clear that it is not much the governance structure of a bank, but the "risk governance", i.e. how the governance structure works, that determines the resilience of a bank in turbulent times. Therefore, considering the present discussion, a bank should be more concerned about letting gender diversity work (Owen & Temesvary, 2018) rather than merely complying with current gender quota laws as also the market values the information related to "strong" risk governance (Battaglia & Gallo, 2015).

As Gulamhussen & Santa (2015) noted when examining the effects of women's involvement on the board of directors of 461 large banks from Organisation for Economic Co-operation and Development (OECD) countries, gender-diverse boards were associated with increased monitoring (Ahmed, Ng, & Delaney, 2015), risk-aversion, and risk oversight. A bank can profit from such risk-aversion in times of turbulence (Farag & Mallin, 2017). Studies have shown that when women held leadership positions, they caused a bank to hold larger capital buffers and lower amounts of non-performing loans (NPLs), thus drawing the bank further from financial distress (Sahay, Čihák, & other IMF Staff, 2018). Reinforcing this view is the study of Adams and Ferreira (2009), who analysed 1,939 firms listed on the Standard & Poor's (S&P) 500, S&P MidCaps, and S&P SmallCap from 1996 to 2003 and found that gender-diverse boards allocate more effort to monitoring. They also noticed that female directors had better attendance records compared to their male counterparts and that women were more likely to join monitoring committees. Further studies also suggested that women, when serving as executive directors, improve a bank's stability (Ghosh, 2017). Recent investigations based on a sample of 82 listed banks in the Gulf Cooperation Council (GCC) countries for the period 2002-2014 also indicated that women directors are more riskaverse than their male peers and that they are likely to advocate riskier investments only when the amount of regulatory capital that the bank holds is enough.

Based on these arguments, we hypothesize that:

*H1:* A higher percentage of women on the board of directors reduces a bank's risk-taking.

#### 2.2. The moderating role of masculinity

Recent studies have suggested that gender may not be the sole predictor of women's risk-aversion and that cultural variables may play a role. There is evidence that when women make risky decisions, they consider the payoffs of their peers to minimize inequalities (Gamba, Manzoni, & Stanca, 2017; Lahno & Serra-Garcia, 2015; Linde & Sonnemans, 2012). As Friedl, Pondorfer, and Schmidt (2019) suggested after having designed a controlled experiment to analyse gender differences in social risk-taking, culture affects the social risk-taking behaviour of individuals. Friedl et al. (2019) found, consistent with previous studies, that men and women respond differently to the same driver for risk-aversion in social risk taking, namely inequality aversion. Specifically, they provided empirical evidence that, while men prefer more efficient allocations, i.e. higher risk/return gambles, women are more inequality averse, thus preferring "the equal split" more often than men.

However, as noted in reviewing the few banking studies investigating how the alleged risk-aversion of women directors may affect a bank's risk-taking and, in turn, a bank's performance, the role of cultural variables has been largely overlooked. To overcome this gap, in this paper, we look at a country-level cultural dimension, the masculinity, as a moderator of the effect of board gender diversity on bank risk-taking.

Masculinity is cultural dimension а incorporating the behavioural expectations surrounding men and women in society (Hofstede, 1984; Hofstede et al., 2010). This is because, since women in banking must confront severe stereotypes when targeting top-level corporate jobs such as that of directors (Özbilgin & Woodward, 2004), it is likely that they will also have to question the behavioural expectations regarding their gender and their role in a bank.

Masculinity can he framed both as a country-level or as an individual-level dimension. These dimensions, as the layers of culture shaping an individual's behaviour, are interconnected (Hofstede et al., 2010). Therefore, country-level masculinity defines, at least partially, organizational-level culture which, in turn, affects how employees perceive the role of men and women in the workplace.

Individual-level masculinity (Bem, 1974;Helgeson, 1994) posits that society deems a man "masculine" only if he fulfils the curtain, constructed expectations of what constitutes "a manly behaviour" (Levant, 1992; Thompson, Pleck, & Ferrera, 1992; Smiler, 2006). The individual conformity to the cultural expectations surrounding masculinity (e.g. "A guy should take risks to reach his goals" (Doss & Hopkins, 1998, p. 729)) may cause a male-centric culture and male-centric social norms to take roots (Ceci, Williams, & Barnett, 2009; Cheryan, Schwartz Cameron, Katagiri, & Monin, 2015; Danbold & Huo, 2017). Therefore, women in masculine occupations and workplaces, given their distinct behavioural traits (Borghans et al., 2009; Croson & Gneezy, 2009; Neelakantan, 2010; Watson McNaughton, 2007), must overcome severe & obstacles in their day-to-day work. Women prefer to cultivate harmonious relationships with their superiors and peers, and when a conflict arises, they are likely to negotiate to preserve harmony. On the other hand, men believe career advancement, competitiveness, and earnings to be more important (Ashraf et al., 2016; Hofstede et al., 2010). Moreover, women are more inequality adverse than men (Friedl et al., 2019). All these factors may cause women unwilling to jeopardize their work-life balance to hinder their ability to decide: not wanting to imperil their job, women directors may become even more risk-averse (Granleese, 2004; Özbilgin & Woodward, 2004). Masculinity discourages women to enter certain occupations (Pecis & Priola, 2019; Quayle, Lindegger, Brittain, Nabee, & Cole, 2018), but it also restrains their contributions once they are employed. Country-level masculinity, on the other hand, affects workplace culture because it determines the culturally constructed expectations surrounding work-related goals and preferences. In countries with high masculinity, competitive and assertive behaviours in the workplace are acceptable and there are few women in professional occupations (Hofstede et al., 2010).

Based on these arguments, we hypothesize that:

H2: Country-level masculinity has a negative moderating effect on the relationship between board diversity and risk-taking, in such a way that in highly masculine cultures women become even more risk-averse.

#### **3. RESEARCH METHODOLOGY**

#### 3.1. Data source and sample selection

This study draws on a dataset covering the years 2008-2017 and comprising 110 banks from Germany, Italy, Switzerland Spain, and and

13,200 observations. The paper focuses on listed banks because they are large, more structured, and more information is available (Aebi, Sabato, & Schmid, 2012). The first phase of the data collection process was set out to collect the main financial and corporate governance data from the Bureau van Dijk Orbis Bank database. For a bank to be eligible it had to be based in Germany, Italy, Spain, or Switzerland and it had to be listed. The second phase of the data collection process was set out to collect more fine-grained corporate governance data, and it involved the analysis of the annual reports of each bank. To ensure the quality and consistency of the information used, further checks were made on each bank's website.

#### 3.2. Risk-taking as the dependent variable

The study uses a bank's risk-taking as the model's dependent variable. Consistent with previous studies (Iannotta, Nocera, & Sironi, 2007; de Cabo et al., 2012; Mihet, 2013; Sila et al., 2016), the model considers the standard deviation of return on assets (ROA) recorded from 2008 to 2017. The volatility of ROA measures the variability of a bank's income and is a proxy of the effects of board gender diversity on risk-taking.

#### 3.3. Independent variables

The main independent variable is gender diversity, measured by the ratio of a bank's women directors to a bank's total number of directors on the board (in two tier governance system, we considered the supervisory board). The other independent variable needed to test the moderating effect is *masculinity*, measured by the score proposed by Hofstede (1984) and Hofstede et al. (2010). To get a country's masculinity dimension, the present study refers to the Hofstede Insights Country Comparison Tool (2019). Such a tool provides for each country included in the database a report on its national culture. The reports of Germany, Italy, and Switzerland were based on the 6-D model of national culture (Hofstede et al., 2010), while that of Spain is based on the 5-D model (Hofstede, 1984). Given that the framing of the masculinity dimension is the same both in the 6-D model and in the 5-D model, no issues of comparability between models arise. The masculinity score was 66 for Germany, 70 for Italy, 42 for Spain, and 70 for Switzerland. The cultures of Germany, Italy, and Switzerland are masculine ones, while that of Spain is a feminine one.

#### 3.4. The moderating variable

The interaction variable is the product of the two originating independent variables, namely a bank's board gender diversity and masculinity.

#### 3.5. Control variables

The model adopted controls for ownership structure, board structure, and bank characteristics.

Regarding the ownership structure, the following control variables were included: block ownership, director ownership, and institutional ownership.

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*Block ownership* (Abou-El-Sood, 2019; Iannotta et al., 2007; Levi, Li, & Zhang, 2014) is a dummy variable that equals 1 if the bank has a blockholder controlling at least 10% of equity and of voting rights, 0 otherwise. Block ownership proxies for ownership concentration and it is relevant because the managers of a bank having dispersed ownership may take less risk than those deemed optimal for shareholders. Studies also suggest that block ownership contributes to lower asset and insolvency risks (Iannotta et al., 2007).

*Director ownership* (Abou-El-Sood, 2019; Laeven & Levine, 2009; Mathew, Ibrahim, & Archbold, 2016) is a dummy variable that equals 1 if the bank has a member of the board (supervisory board in two-tier governance systems) who holds at least a 5% equity stake, 0 otherwise. Director ownership determines the risk-taking behaviour of a bank's board. In fact, when a bank's directors possess equity holdings, they are likely to undertake risky investments to maximize their returns (Jensen & Meckling, 1976; Sanders & Hambrick, 2007).

*Institutional ownership* (Mathew et al., 2016; Moussa, 2019) is a dummy variable that equals 1 if in the bank there is at least an institutional owner, 0 otherwise. Institutional ownership affects a bank's risk-taking behaviour. In fact, when holding high equity stakes, institutional owners impose riskier strategies (Barry, Lepetit, & Tarazi, 2011).

Regarding board structure, the following control variables were included: board size and board independence.

*Board size* (Abou-El-Sood, 2019; Adams & Ferreira, 2009; Adeabah et al., 2019; Arena et al., 2015; D'Amato & Gallo, 2019) is measured as the natural logarithm of the number of directors serving

in a bank's board of directors. Larger board of directors determines higher transaction costs and difficulties in reaching consensus.

*Board independence* (De Vita & Luo, 2018; Mukarram et al., 2018; Sila et al., 2016) is measured as the percentage of independent directors serving in a bank's board of directors. Independent directors have no other relationship with the bank besides their directorship and they are more involved in monitoring activities.

Regarding bank characteristics, the following control variables were included: bank size, bank capitalization, loans to total assets, and non-performing loans to total assets.

*Bank size* (Adeabah et al., 2019; Chan, Koh, & Karim, 2016; Pathan, 2009) is measured as the natural logarithm of total assets as per 2017. Larger banks can access better financial products and diversify their portfolios, thus reducing risk (Chan et al., 2016).

*Bank capitalization* (Abou-El-Sood, 2019; De Vita & Luo, 2018) is measured as a bank's Tier 1 capital ratio to a bank's total risk-weighted assets as per the year 2017. A well-capitalized bank has enough Tier 1 capital to allow undertaking risky investments without jeopardizing its survival.

*Loans to total assets* (Arnaboldi, Casu, Kalotychou, & Sarkisyan, 2018; D'Amato & Gallo, 2019; Gulamhussen & Santa, 2015) and *non-performing loans* (*NPLs*) to total assets (Abou-El-Sood, 2019; De Vita & Luo, 2018) are proxies for, respectively, a bank's business model (de Andres & Vallelado, 2008) and a bank's loans portfolio risk.

Table 1 provides a list of all variables with their related measures.

#### Table 1. Variables and measures

Variables	Measures
Dependent variables	
$\sigma ROA$	Standard deviation of ROA (operative income/total assets) recorded from 2008 to 2017
Independent variables	
Gender diversity	A bank's percentage of women directors on the board of directors
Masculinity	Country-level masculinity (Hofstede, 1984; Hofstede et al., 2010)
Moderating variable	
Gender diversity × Masculinity	The product of a bank's board gender diversity and country-level masculinity
Control variables	
Ownership structure	
Block ownership	Dummy variable: 1 if at least a block owner is also director, 0 otherwise
Director ownership	Dummy variable: 1 if at least an owner is also director, 0 otherwise
Institutional ownership	Dummy variable: 1 if at least an institutional owner is also director, 0 otherwise
Board structure	
Board size	Natural logarithm of the number of directors on bank's board
Board independence	A bank's % of independent directors on the board of directors
Bank characteristics	
Bank size	Natural logarithm of total assets
Capitalization	Tier 1 capital/Total risk-weighted assets
Loans/assets	Loans/Total assets
NPL/assets	Non-performing loans/Total assets

Source: Authors' elaboration.

#### 3.6. Data analysis

This study uses a moderated multiple regression to analyse the data (Aguinis & Gottfredson, 2010). The specification of the estimated model is as follows:

$$\sigma ROA = \beta_0 + \beta_1 (gender \ diversity) + \beta_2 (masculinity) + \beta_3 (gender \ diversity \times (1))$$

$$masculinity) + \beta_4 (control \ variables) + \varepsilon$$

Regarding the data analysis process, model 1 includes only the control variables, model 2 only the independent variables, while model 3 tests the effects of the moderating variable. Prior to estimating the model, controls were made for heteroskedasticity by applying the Huber-White estimator to determine the robust standard errors (Rogers, 1994; Wooldridge, 2002). In addition, to test for moderation and avoid collinearity issues, the model uses mean-centred independent variables

(Aguinis & Gottfredson, 2010; Aiken & West, 1991). To further verify multicollinearity problems, the condition index and the variance inflation (VIF) test were used. VIF values ranged from 1 to 2, while the highest registered value of the condition index was 13,45. Based on previous literature, these results do not signal major problems with multicollinearity (Hair, Anderson, Babin, & Black, 2010). To ensure the robustness of the results, the analysis was replicated by using the standard deviation of ROE as the main dependent variable (Laeven & Levine, 2009; Kanagaretnam et al., 2011). Last, to control for endogeneity, gender diversity was regressed on net interest income (Gulamhussen & Santa, 2015). The results obtained did not reveal any significant relationship.

#### 4. RESULTS

This section presents the results of the analyses performed using the statistical software STATA. Table 2 below shows the descriptive statistics referring to the sample.

 Table 2. Descriptive statistics

	Mean	Median	S.D.	Min.	Max.
Gender diversity	.27	.29	.28	0	.56
Masculinity	62	68	11	42	70
Block ownership	.47	.45	.28	0	.63
Director ownership	.36	.32	.21	0	.41
Institutional ownership	.22	.18	.16	0	.39
Board size	11	13	17	5	21
Board independence	.37	.33	.18	0	.41
Bank size	748	623	215	43	1767
Capitalization	.11	.10	.03	.06	.23
Loan/assets	.69	.71	.12		.92
NPL/assets	.02	.01	.02	.01	.04

Source: Authors' elaboration.

The mean calculation first identified the values pertaining to each variable at the bank level over the years 2008 to 2017. After that, the average values for all the banks included in the sample were calculated. Concerning national culture, the countries included in the present cross-country analysis are, on average, high in masculinity. Data also revealed that women, on average, constitute 27% of a bank's board members and that 47% of the banks included in the sample had a concentrated ownership structure, i.e. there is at least one manager holding 5% of the equity capital. Moreover, 22% of the banks examined had an institutional owner. Regarding the composition of the board of directors, the average number of board members is 11, with the independent directors accounting for 37% of the total directors. In terms of bank characteristics, the Tier 1 capital/Total risk-weighted assets mean value is 0.11, the ratio of loans on total assets is 0.69, while non-performing loans (NPLs) account for 2% of total assets. The highest registered value of total assets was € 1767 billion.

Table 3 summarizes the results of the hierarchical moderated regression models.

# **Table 3.** Results of hierarchical moderatedregression models

	Risk	Risk	Risk
	Model 1	Model 2	Model 3
Independent variables			
Gender diversity	-	678**	634*
Masculinity	-	.368	.342*
Moderating variable			
Gender diversity ×			452**
Masculinity	-	-	435
Control variables			
Ownership structure			
Block ownership	189*	192*	178*
Director ownership	187*	193*	176*
Institutional ownership	.278**	.248**	.245**
Board structure			
Board size	.345**	.343**	.322**
Board independence	269*	252*	248*
Bank characteristics			
Bank size	.032**	.031**	.029**
Capitalization	.245*	.223*	.237*
Loan/assets	.167	.1687	.159
NPL/assets	324	321	312
Ν	110	110	110
N observations	13,200	13,200	13,200
$R^2$	.37	.48	.53
Adjusted R <sup>2</sup>	.37	.44	.51
<i>F</i> -change	7.899**	9.425**	11.621***

Source: Authors' elaboration. Notes: \* significance at the 10% level; \*\* significance at the 5% level; \*\*\* significance at the 1% level.

Column 1 displays the effects that the control variables have on a bank's risk. Results show that board independence, block ownership, and director ownership are associated with lower risk levels, while board size and institutional ownership tend to bank's risk. Regarding increase а bank characteristics, results show that larger and less capitalized banks are riskier. Having introduced the independent variables, model 2 reveals that the presence of women on the board of directors is significantly and negatively related to bank risk. This finding strengthens the assumption that women, on average, are more risk-averse than men and support H1. Instead, masculinity per se does not significantly affect a bank's risk. Notable, in model 3 the moderating effect of masculinity becomes clearer. Results suggest that, in those cultural contexts characterized by a high value of the masculinity dimension, the women serving on the board of directors of a bank become even more risk-averse than usual. These findings support H2. The changes in the  $R^2$  are significant from model 1 to model 2, and from model 2 to model 3.

#### 5. DISCUSSION

As the empirical evidence suggests that country-level masculinity moderates the relationship between the board gender diversity of a bank and a bank's risk-taking in a way that women directors become even more risk-averse, the following are a series of suggestions for creating a more gender-mature workplace in the banking sector.

#### 5.1. The "ideal worker"

To create a more gender-mature workplace, a bank should go beyond mere compliance to gender quota laws and provide actionable solutions aimed at

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fostering a more inclusive workplace culture. Often a bank perceives its women serving on the board of directors as tokens and not as a resource (Lafuente & Vaillant, 2019). Moreover, and this has severe financial implications besides the ethical ones, when the attributes that the organizational culture assigns to the "ideal worker" are inherently masculine, female directors may be prone to become even more risk-averse, as the results of the present analysis show (Croson & Gneezy, 2009; Özbilgin & 2004). The prevailing culturally Woodward. constructed male-centric culture of banks is clear in the narrative of those financial institutions that advocate equal opportunities while encouraging long work hours to the detriment of family life. In highly masculine countries, bank leaders could try to build an organizational culture that collides with the prevailing national culture. Even though the country-level cultural pressure is likely to be high, conflicting cultures may coexist (Hofstede et al., 2010).

Challenging the prevailing cultural norms may benefit a bank in two ways. First, it will allow a bank to benefit from the best of both worlds: the (average) risk-aversion of women directors and the (average) risk propensity of male directors. These diverging risk attitudes may be a valuable resource for a bank wanting to balance profitability and financial soundness (Pfeffer & Salancik, 1978). Second, a bank acting in such a way could become a model, a symbol of egalitarianism in the workplace, and therefore gain legitimacy from its institutional environment (Meyer & Rowan, 1977). Another option for banks may be to ensure a fairer balance between the family and the work responsibilities of their employees. By removing one of the obstacles deemed outmost relevant by women directors (Özbilgin & Woodward, 2004), a bank could at least partially stop hindering the contribution that women sitting on the board of directors could give.

#### 5.2. Women in the "boys' club"

In an organization, the members of the "boy's club" are the gatekeepers of career advancement. Even though the membership of such a club is difficult to get, those who are allowed to access it can take part in informal social events and gatherings (Agarwal, Qian, Reeb, & Sing, 2016; De Welde & Laursen, 2011). However, the access to the "boys' club" is restricted for women, since the male elite perceives female directors as a threat to their privileges, an obstacle to the perpetuation of those masculine stereotypes aimed at maintaining their positions of authority. Scholars have suggested that organizations should make deliberate efforts to organize social activities that may interest and engage the female workforce (Diekman, Weisgram, & Belanger, 2015). Given the results of the analysis performed, it may be more effective cultural to change the motives underpinning such events. The risk is that these inclusive social gatherings may occur in a workplace culture that keeps seeing women directors as tokens. To ensure more opportunities for career advancement, a bank should also allow the women sitting in its board of directors the opportunity to network not only with male top executives and directors but also with the highly successful women of the financial industry. Such a choice would provide women directors with female role models who confronted workplace discrimination and incivility in order to attain their positions. Through socialization, women could build a shared identity "from the ground-up", a factor that may be decisive in those countries where the masculine culture is hegemonic.

However, for these suggestions to be effective, the distribution of the rewards of a more gender-mature workplace should occur in an egalitarian setting. Differently, i.e. if men and women are not granted the same opportunities, the rewards based on equity principles will go to those already holding positions of power or to those willing to compromise more their work/life balance.

In sum, a bank wanting to promote a more gender-mature workplace culture should question the culturally constructed male-centric depiction of the "ideal worker" (Croson & Gneezy, 2009; Özbilgin & Woodward, 2004), grant women the access to the "boys' club" (Agarwal et al., 2016; De Welde & Laursen, 2011), and provide them with the opportunity to network with successful female role models.

#### 6. CONCLUSION

This study examined the effects of board gender diversity on a bank's risk by applying a moderated multiple regression analysis on a dataset covering the years 2008-2017 and comprising 110 banks from Germany, Italy, Spain, and Switzerland. Masculinity, a country-level cultural dimension incorporating the behavioural expectations surrounding men and women in a society, is used as a moderator. Results have shown that a higher percentage of women on the board of directors reduces a bank's risk-taking and that country-level masculinity has a negative moderating effect on the relationship between board diversity and risk-taking, in a such a way that in highly masculine cultures women become even more risk-averse.

Consistent with the previous banking literature, this research found support to the hypothesis that a higher percentage of women on the board of directors reduces a bank's risk-taking (Ahmed et al., 2015; Ghosh, 2017; Gulamhussen & Santa, 2015; Sahay et al., 2018). However, in contrast with recent banking studies asserting that country-level masculinity does not have a significant direct effect on bank risk-taking behaviour (Ashraf & Arshad, 2017), this paper provides evidence that masculinity exerts a moderating effect on the relationship between a bank's board diversity and risk-taking. The present work advances the extant banking literature by showing that in highly masculine cultures a bank's women directors become even more risk-averse.

Previous banking literature has largely overlooked how masculinity affects a bank's (Kanagaretnam al., risk-taking et 2011: Mourouzidou-Damtsa et al., 2019; Sist & Kalmi, 2017). In fact, most of the published literature addressing the economic effects of masculinity refers to listed companies and not to banks (Arena et al., 2015; Li & Harrison, 2008; Mukarram et al., 2018; Sila et al., 2016). The few banking studies

available suffer from several limitations. First, they use small samples and investigate single countries (Adeabah et al., 2019) or single cultural clusters (Abou-El-Sood, 2019; Elbahar, 2019). Second, they concentrate on masculine industries, not on masculine countries (Arena et al., 2015). Third, they only test whether there is a positive association between national levels of masculinity and bank risk-taking (Ashraf et al., 2016; Ashraf & Arshad, 2017; Illiashenko & Laidroo, 2020), thus implying that country-level masculinity promotes higher financial risk-taking regardless of the decision-maker's sex (Meier-Pesti & Penz, 2008).

This pilot cross-country study advances the current academic debate by focusing on banks and by observing the effects of board gender diversity on a bank's risk and, in turn, on performance and by using country-masculinity as a moderator. Since results are consistent across cultural contexts, subsequent studies should not overlook the moderating role of masculinity.

To mitigate the negative effects of high country-level masculinity, this paper provides several suggestions. First, banks should change their stereotypical depiction of the "ideal worker". Second, banks should question the cultural motives underpinning the entrance of women directors in the "boy's club". Last, banks should create a more egalitarian workplace where the distribution of rewards does not strengthen the privileges of the established elites.

This pilot study suffers from several limitations. First, the sample used is still rather small. Therefore, future studies should consider a larger number of banks. Second, it examines only four European countries. Subsequent research should then look at more European countries or both European and non-European countries. Third, the results of the present paper were not further tested by using alternative country-level dimensions of masculinity such as those of the GLOBE Project.

Regarding future research avenues, scholars could also consider cultural variables other than masculinity (Hofstede, 1984; Hofstede et al., 2010) and test their moderating effect on the relationship between a bank's board gender diversity and a bank's risk-taking. Moreover, additional studies are needed at the organizational-level, where firm-level masculinity may be measured via surveys and questionnaires.

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## APPENDIX

### Table A.1. List of banks by countries

Nr.	Bank's name	Country
1	Deutsche Bank AG	Germany
2	Commerzhank AG	Germany
3	Deutsche Boerse AC	Cermany
3	Deutsche Dense AG	Cormany
-	Aaroal Bank AC	Cormany
5	Adledi Balik AG	Germany
0	HSBC ITIIIKAUS & BUFKIIAFUL AG	Germany
1	Comdifect Bank AG	Germany
8	Oldenburgische Landesbank Old	Germany
9	Wustenrot & Wurttembergische AG	Germany
10	Umwelt Bank AG	Germany
11	Merkur-Bank KgaA	Germany
12	Procredit Holding AG & Co. KgaA	Germany
13	Grenke Ag	Germany
14	Varengold Bank AG	Germany
15	Baader Bank AG	Germany
16	Quirin Privatbank AG	Germany
17	Lang & Schwarz AG	Germany
18	MLP SE	Germany
19	Tradegate AG Wertpapierhandelsbank	Germany
20	Euwax Aktiengensellschaft	Germany
21	Berliner Effektengensellschaft AG	Germany
22	Albis Leasing AG	Germany
23	mwb fairtrade Wertpapierhandelsbank AG	Germany
24	DF Deutsche Forfait Aktiengesellschaft	Germany
25	PEH Wertnanier AG	Germany
26	Hoevelrat Holding AG	Germany
27	Sino AC	Cormany
28	Ferav Canital AC	Cormany
20	Nijio Einango Croup	Cormany
29	Nino Finance Group	Germany
30	Value Management & Research AG	Germany
31	VPE wertpapiernandelsbank	Germany
32	Valora Effekten Handel AG	Germany
33	Schnigge Wertpapierhandelsbank SE	Germany
34	Banca Generali	Italy
35	Banco BPM	Italy
36	BPER Banca	Italy
37	Finecobank	Italy
38	Intesa Sanpaolo	Italy
39	Mediobanca	Italy
40	Ubi Banca	Italy
41	Unicredit	Italy
42	Banca Farmafactoring	Italy
43	Banca Ifis	Italy
44	Banca Mediolanum	Italy
45	Banca Monte Paschi Siena	Italy
46	Banca Pon Sondrio	Italy
40	Credito Emiliano	Italy
48	Credito Valtellinese	Italy
40	Illimity Bank	Italy
49	Panca Finnat	Italy
50	Dalila Fillia Danas Intermobiliano	Italy
51	Dania Interinoundite	Italy
52	Dalita riviliu Panca Siatama	Italy
55	Dalita Sistellia	Italy
54	Banco di Desto e Brianza	Italy
55	sanco ui sardegna kisparmio	Italy
56	Cassa Depositi e Prestiti	Italy
57	Banca Nazionale del Lavoro	Italy
58	Dexia Crediop	Italy
59	Unipol	Italy
60	Abanca	Spain
61	Ibercaja Banco	Spain
62	Kutxabank	Spain
63	Banesto	Spain
64	Banco Popular	Spain
65	Banco Santander SA	Spain
66	Banco Bilbao Vizcaya Argentaria SA-BBVA	Spain
67	Caixabank, S.A.	Spain
68	Bankia, SA	Snain
69	Banco de Sabadell SA	Spain
70	Bankintar SA	Spain
70	Unicaja Ranco SA	Spain
72	Liberbark CA	Spain
72	LIUCIJAIN JA	Spain
73	Renta 4 BallCO, S.A.	Spain
74	SCHWEIZERISCHE NAUOHAIDAHK-BANQUE NATIONAIE SUISSE	Switzerland

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75	Julius Baer Group Ltd	Switzerland
76	Credit Suisse Group AG	Switzerland
77	UBS Group AG	Switzerland
78	Banque Cantonale Vaudoise	Switzerland
79	Luzerner Kantonalbank AG	Switzerland
80	St. Galler Kantonalbank AG	Switzerland
81	Banque Cantonale Bernoise SA-Berner Kantonalbank AG	Switzerland
82	Valiant Holding	Switzerland
83	Graubuendner Kantonalbank-Banque Cantonale des Grisons	Switzerland
84	Basellandschaftliche Kantonalbank-Banque Cantonale de Bale-Campagne	Switzerland
85	Basler Kantonalbank-Banque Cantonale de Bâle	Switzerland
86	Vontobel Holding AG-Vontobel Group	Switzerland
87	Banque Cantonale de Genève	Switzerland
88	Thurgauer Kantonalbank-Banque Cantonale de Thurgovie	Switzerland
89	Bank Cler AG	Switzerland
90	Banque Cantonale du Valais-Walliser Kantonalbank	Switzerland
91	Zuger Kantonalbank	Switzerland
92	Edmond de Rothschild (Suisse) S.A	Switzerland
93	Bank Linth LLB AG	Switzerland
94	Leonteg AG	Switzerland
95	Swiss Life Holding	Switzerland
96	Glarner Kantonalbank	Switzerland
97	Swissquote Group Holding Ltd.	Switzerland
98	Hypothekarbank Lenzburg AG	Switzerland
99	Cembra Money Bank AG	Switzerland
100	Pargesa Holding SA	Switzerland
101	Banque Cantonale du Jura	Switzerland
102	EFG International	Switzerland
103	GAM Holding AG	Switzerland
104	Compagnie Financière Tradition	Switzerland
105	Bellevue Group AG	Switzerland
106	Banque Profil de Gestion SA	Switzerland
107	VZ Holding AG	Switzerland
108	Valartis Group AG	Switzerland
109	Castle Alternative Invest Ag	Switzerland
110	Norinvest Holding	Switzerland

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