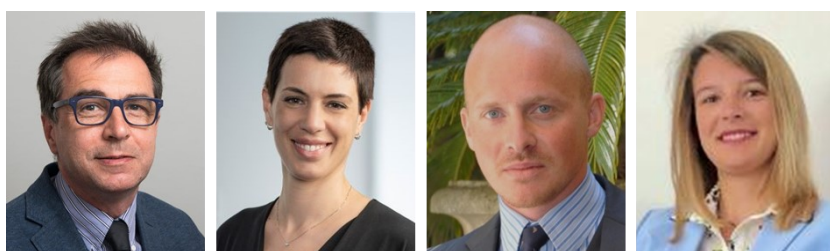


Gender diversity in bank boardrooms helps to combat climate change*



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Banks with more gender-diverse boards provide less credit to browner companies. This evidence is robust when considering different types of emissions. Better-educated female directors grant lower credit volumes to more polluting firms. The “greening” effect of a greater female representation in banks’ boardrooms is stronger in countries with more female climate-oriented politicians.

Introduction

Combatting climate change and its detrimental effects is at the heart of current social and policy debates (Lagarde, 2021). Following the 2015 Paris Agreement on climate, whose rules have been finalized in October 2021, achieving carbon neutrality is one of the world’s most urgent priorities. Since banks play a pivotal role in modern financial systems, by channelling funds to the non-financial sector, they can significantly contribute to a faster transition to a carbon-neutral economy via sustainable lending decisions. A bank’s climate strategy and commitment to align with the global sustainability agenda depend on the trajectory defined by the board, which in turn is influenced by its composition and degree of diversity.

*The views in this paper are those of the authors only and do not necessarily reflect those of the BIS or the ECB.

Why the focus on female directors?

A recent survey by PricewaterhouseCoopers (2022) on corporate directors shows that female board members significantly prioritize climate action compared to male peers, with 66% of female respondents that recognize the strategic importance of timely addressing climate change, compared to 45% of male members. The dynamics according to which women in the boardroom can add value are explained by sociological and physiological theories (Cumming et al., 2015). Both socialization and gender socialization perspectives support the evidence of a positive impact of female directors on corporate social responsibility (CSR) because of women's lower likelihood, compared to men, to damage the environment and their greater concerns about ethical issues (Kennedy and Kray, 2014).

Across cultures, women are seen to be more community-minded than men and characterized by traits such as empathy, caring and remarkable concern for others (Eagly and Karau, 1991; Fondas, 1997). They appear to be more socially oriented than their male peers, thereby likely to be more sensitive to environmental issues. Compared to male directors, female board members reveal a stronger orientation toward CSR (Ibrahim and Angelidis, 1994). By bringing different perspectives to the table and by adopting a more participative leadership style, women on boards might facilitate conversations and decisions on CSR-related tasks, being better able to manage the relationships with various stakeholder groups (Eagly et al., 2003).

Why the focus on banks?

As a major channel of credit to the real economy, banks have the potential to play a pivotal role in the global effort to promote green(er) projects and an effective shift toward a low-carbon economy. Banks' capability in imposing costs on non-compliant firms by adjusting lending quantities and/or prices represents a key lever to promote a faster transition to carbon neutrality (Kacperczyk and Peydrò, 2022). Furthermore, the increasing pressure from policymakers, investors and customers also significantly influences banks' lending and investment activities towards more sustainable options.¹ Given the extreme relevance of climate change and the increasing attention on how to combat its effects, it is therefore of primary interest to appreciate the way the financial sector, in general, and the banking industry contribute to decarbonizing the global economy (De Haas and Popov, 2019; Mésonnier, 2019; Degryse et al., 2021; Reghezza et al., 2022), whilst fostering improvement in the corporate sector's environmental performance.

What we do

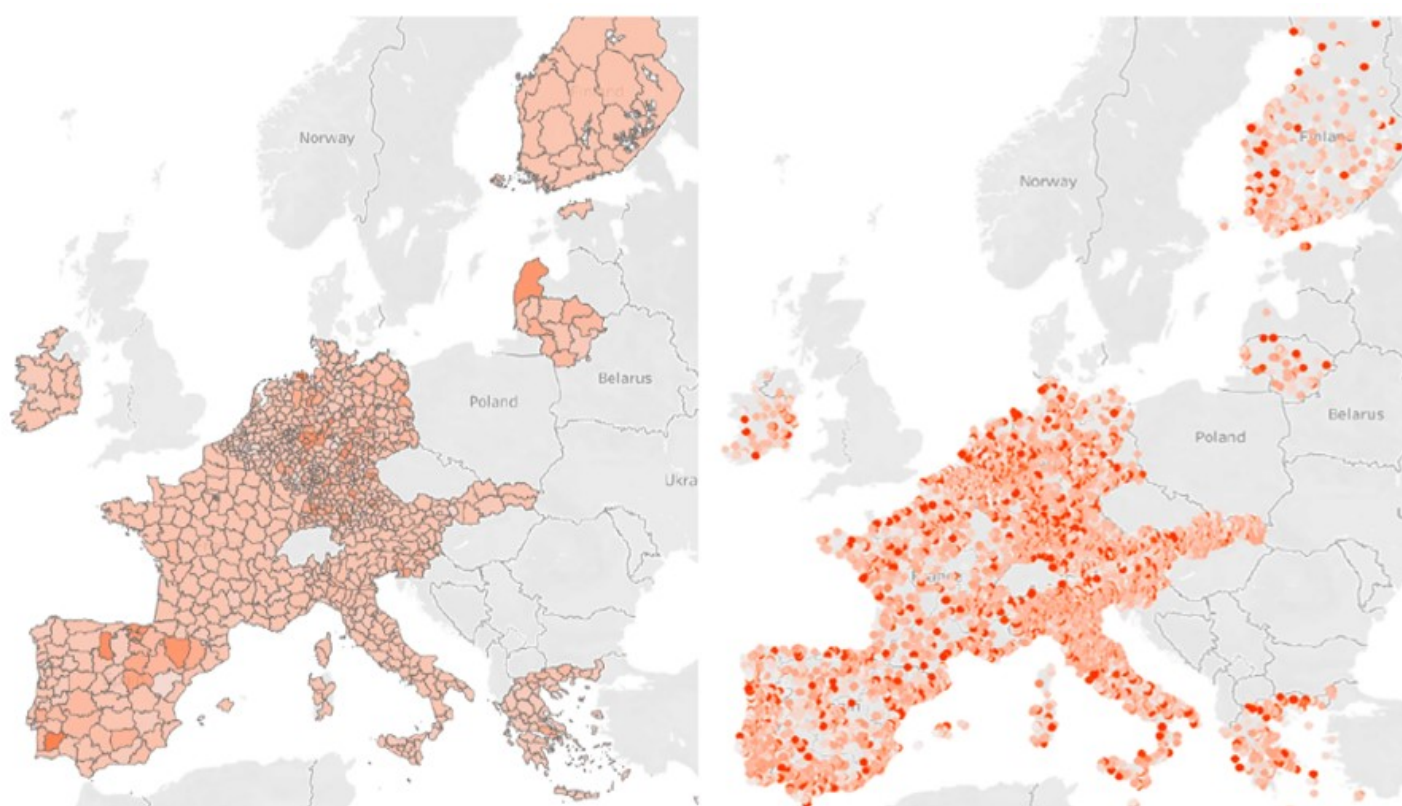
By relying on a unique sample of almost a million loans extracted from the analytical credit register (AnaCredit) for the euro area and matched with firm-level information on greenhouse gases (GHG) emission intensity, we explore the potential influence of women in the boardroom on banks' lending strategies. Given the likely impact of the Covid-19 pandemic on banks' lending behaviours in 2020, our focus is on the year 2019. We investigate whether and to what extent a greater female representation in the banks' boardrooms influences their capability to "greening" the economy. In particular, we test whether a greater gender diversity in the boardroom can shape banks' decisions to discriminate lending between more and less polluting firms, thereby driving more effective environmental policies.

¹ In this respect, it is worth mentioning that both the French and UK bank regulators have started to conduct stress tests that account for climate-related risks. In 2021, the European Banking Authority (EBA) has conducted an EU-wide pilot exercise on a sample of 29 volunteer banks from 10 countries. In the same year, the European Central Bank (ECB) has conducted an economy-wide climate stress test on both firms and banks in the European Union (EU), with a horizon of 30 years into the future.

We consider 52 euro area banks, which account for about 60% of the banking total assets in the region. Furthermore, by employing a European-wide credit register, we are able to exploit full heterogeneity across countries with different national settings. We can, this way, benefit from a large variation in cultural and institutional elements and investigate peculiarities in the “gender-green-lending” nexus of banks located in northern and southern euro area economies and in countries that adopted legislative board gender quotas. Lastly, we rely on detailed corporate-level data on GHG emissions, also distinguishing between Scope 1, 2 and 3 emissions.²

Figure 1 displays the difference between the median GHG emission intensity within a region (left-hand chart) and the firm-level GHG emission intensities (right-hand chart), with the latter representing the measure used in our empirical analysis. As shown, the aggregate GHG emission intensity is relatively homogeneous in each region. By contrast, firm-level GHG emissions allow capturing a greater heterogeneity in the level of pollution caused by firms.

Figure 1: Comparison of greenhouse gases (GHG) emissions



Notes: This figure displays the difference between the median of the sectoral GHG emission intensities within a region (left-hand chart) and the firm-level GHG emission intensities (right-hand chart). GHG emissions are relative to firms' revenues.

What we find

Our results indicate that banks with more gender-diverse boards provide less credit to more polluting companies. This inverse relationship between bank lending volumes and GHG emission intensities for boards with more female directors is confirmed also when we differentiate among Scope 1, 2 and 3 GHG emissions.

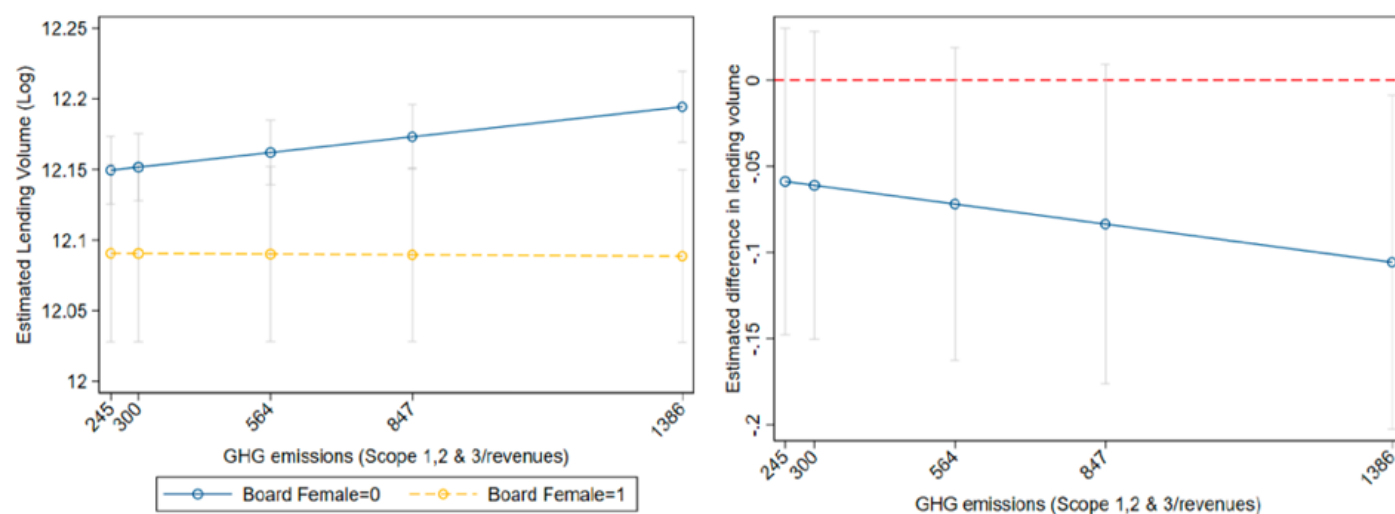
²Scope 1 covers direct emissions from sources owned or controlled by the reporting company. Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating and cooling consumes by the reporting company. Scope 3 includes all other indirect emissions that occur in a company's value chain.

The effect is economically relevant. The left-hand chart of Figure 2 reports the estimated log of lending volumes at different levels of GHG emissions between the categories of banks with a % of female directors below and above the 75th percentile, whilst the right-hand chart presents the estimated difference in lending volumes at different levels of GHG emissions between the two groups of banks. Lending volumes to firms with a level of GHG emissions equal to and/or below the 75th percentile are not statistically different for the two groups of banks, suggesting that institutions with a greater female representation in the boardroom tend to grant lending volumes to low and mid-polluting firms comparable to those granted by banks with a greater male representation.

The results are different for highly polluting firms. In this case, we find that banks with more female board members lend less to firms with a level of GHG emissions equal to and/or above the 95th percentile of the distribution. As an illustration of the different effects for the two groups of banks, in the right-hand chart of Figure 2, banks with an above-75th percentile of female directors display about 10% lower lending volumes towards firms with 1,386 tonnes of relative GHG emissions (last quartile) compared to the other group of banks.

In addition, we also show that the female directors' specific demographical characteristics matter for lending behavior towards less polluting firms. In particular, it appears that in banks with more women in the boardroom, female directors holding a doctoral degree positively influence the lending strategies in favor of more sustainable options, i.e. funds are channeled in support of less polluting firms. Finally, we document that the “greening” effect associated with female members in banks’ boardrooms is stronger in countries with more female climate-oriented politicians. All results are robust when we control for potential endogeneity concerns, such as sorting effect and sample selection biases.

Figure 2: Estimated relationship between GHG emissions (Scope 1, 2 & 3) and bank lending



Notes: The left-hand chart plots the estimated relationship between GHG emissions (Scope 1, 2 & 3) and lending for banks with a below-75th percentile of female directors in the boardroom (blue solid line) and banks with an above-75th percentile of female directors in the boardroom (yellow dashed line). The right-hand chart plots the estimated difference in bank lending at different levels of GHG emission for banks with a below-75th percentile of female directors on the board and banks with an above-75th percentile of female directors on the board. The grey bands represent the 95% confidence intervals. In both charts, the y-axis refers to the estimated logarithm of lending volume whilst the x-axis indicates the GHG emissions over firm revenues.

Policy implications

Our results have important implications for policymakers. Policies that envisage a larger percentage of women at the bank management level not only have an impact on gender diversity imbalances but allow for more efficient fulfillment of environmental objectives. However, our results do not investigate the potential trade-off between the environmental results achieved by females in the bank boardroom and the corporate financial performance and risk objectives. Is the achievement of climate objectives also in the interest of bank shareholders? Additional research is needed to study the alignment (or potential misalignment) between the climate-related benefits and the financial repercussions that might stem the deployment of green lending strategies.

Recent empirical evidence shows that the stock market values carbon emissions, as investors require higher compensation for holding the stocks of more polluting companies (Bolton and Kacpercyk, 2021a; Bolton and Kacpercyk, 2021b). The increasing cost of equity for companies with higher emissions can be regarded as an alternative system of decentralized taxation and a way to pass the problem to financial markets. Our study offers an alternative view, as also banks can do their part through their lending decisions, and with the help of a greater presence of females in bank boardrooms. ■

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