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## The gender promotion gap: what holds back female economists from making a career in central banking?

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*The underrepresentation of women in economics is perhaps nowhere as visible as in central banks. This Research Bulletin article uses anonymised personnel data to analyse the career progression of men and women at the European Central Bank (ECB). Women were less likely to be promoted up until 2010, when the ECB issued a statement supporting diversity and took measures to support gender balance. Following this change, the promotion gap disappeared. This masked a lower probability of women applying for promotion, which is partially explained by an aversion to competing, combined with a higher probability of being selected after having applied. Following promotion, women performed better in terms of salary progression, suggesting that the higher probability of being selected is based on merit, not positive discrimination. Thus, organisations such as the ECB should provide training and services that target the competition-related reasons that discourage women from applying for promotion.*

Economics remains a male-dominated field. In the United States, women account for 28.8% of PhD graduates but only 13.9% of full professors in economics (CSWEP, 2017). This underrepresentation of women is perhaps nowhere as visible as in central banks (OMFIF, 2019). For instance, at the time of writing, there is not a single woman on the 30-member General Council of the European Central Bank (ECB).<sup>[2]</sup> A recent survey conducted by the American Economic Association (2019) on the professional climate in the economics profession paints a disheartening picture of an overly competitive and hostile environment for women. This article takes a closer look at what holds women back from making a career in economics.

### What is behind the underrepresentation of women in economics?

Several explanations may account for the lack of women in high-level positions in the economics profession. One possibility is that the pool of potential applicants is male dominated. Despite recent efforts to turn the tide, women remain less likely to study economics in general, and macroeconomics in particular (Ginther and Kahn, 2004). Another explanation is that women are less likely to apply for promotion because of gender differences in preference for competitive environments (Niederle and Vesterlund, 2007) or in bargaining power in the labour market (Blackaby et al., 2005). The presence of children and trade-offs between family and career may also hold back women from pursuing promotion (Bertrand, 2013). Finally, there may be gender-based discrimination in promotion decisions (Goldin and Rouse, 2000).

Which of these explanations is more relevant? And can corporate diversity policies mitigate these biases? Despite a large body of literature on gender differences, there is no agreement on the importance of diversity policies and their impact on labour market outcomes.

### Addressing gender balance at the ECB

In a recent ECB working paper (Hospido et al., 2019), we analyse the career progression of men and women at the ECB using confidential anonymised personnel data on professional staff during the period 2003-17. Our analysis focuses on expert staff across four different salary bands representing different levels of seniority (expert, senior expert, principal expert and advisor) in the various policy areas, the research department and the statistics department. These are business areas across which we observe

considerable flows of staff over time. With this selected group, we focus on a broadly homogeneous pool of staff in terms of human capital and experience, ensuring comparability across individuals.

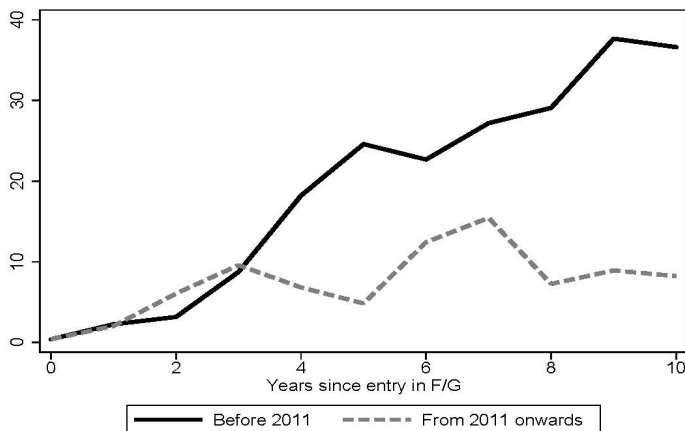
We find that women were less likely to be promoted to a higher salary band up until 2010, when the ECB issued a public statement supporting diversity and took several measures to support gender balance. Following this change, the promotion gap disappeared.

Figure 1 shows in more detail that this change in diversity policy had a material impact on gender difference in promotion outcomes. The figure focuses on promotions from salary band F/G, which is the entry-level salary band for professional economists at the ECB. The gender gap in promotions is defined as the difference in the promotion rates of men and women. The promotion gap narrowed from 2011 onwards, following the policy change. Before 2011 the gender promotion gap ten years after entry stood at over 36%, but after 2011 this gap decreased to around 8% on average, a decline of about 80%.

### Figure 1

Gender gap in the probability of promotion from salary band F/G (before 2011 and from 2011 onwards)

(percentages)



Note: Gender gap in the average annual probability of promotion (moving from salary band F/G to H or I) over ten years after entry at band F/G before 2011 and from 2011 onwards.

Using 2012-17 data on promotion applications and decisions, we explore the promotion process in depth and confirm that, during this most recent period, women are as likely to be promoted as men. That's the good news. The troubling news is that women are less likely to apply for a promotion in the first place. However, after having applied, they are more likely than men to win promotion.

We coin the term "gender applications gap" for this reluctance to apply for promotion, and test some possible explanations for it. We find that women are less likely to apply for promotion when they expect the level of competition to be high. Women are less likely to apply in a campaign that is open to external candidates and the extent to which they are discouraged from applying increases in line with the proportion of their immediate colleagues with relatively high salary levels. This result supports the view that there are gender differences in preference for competition, with women tending to shy away from competitive environments. Following promotion, women perform better in terms of salary progression, suggesting that the higher probability of being selected is based on merit, not positive discrimination. We do not find evidence that the composition of the selection committee, including the proportion of women on the panel, alters these results. Taken together, these results point to the effectiveness of corporate

diversity policies in reducing gender bias in promotions and lend support to supply-side explanations for the existence of remaining gender differences in promotion outcomes.

Our working paper enriches the existing literature on gender gaps in several ways. First, we are the first to use, in a meaningful way, anonymised data from the complete personnel records of a large organisation to analyse gender bias in career progression and promotion decisions. This allows a more comprehensive analysis of career progression across various job levels within an organisation. In contrast, most other studies focus on gender differences at a single level, such as corporate board or leadership level.

Second, in contrast to much of the literature on promotion decisions, we simultaneously consider the roles of promotion applications and decisions when identifying the drivers of the promotion gap.

Third, we take advantage of a change in the ECB's gender policy to assess the impact of broad-based corporate diversity policies on female labour market outcomes.

## Policy implications

Our results suggest that institutional efforts to reduce the gender promotion gap may have to include measures aimed at lowering the barriers faced by women when seeking and applying for promotion opportunities. Such measures could range from offering assertiveness and interview training to enhanced child support benefits and services. More generally, efforts to address the overly competitive and adverse environment in the profession seem desirable. Understanding the main drivers of the observed gender promotion gap is critically important to improving our understanding of how we can close the gender gap. Only by doing so can we ensure that women are adequately represented and their talents better utilised.

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[1] Disclaimer: This article was written by Laura Hospido (Banco de España and Institute of Labor Economics – IZA), Luc Laeven (Director General, Directorate General Research and Centre for Economic Policy Research – CEPR), and Ana Lamo (Senior Economist, Directorate General Research, Monetary Policy Research Division). It is based on a paper entitled "The gender promotion gap: evidence from central banking". The authors gratefully acknowledge the comments of Alberto Martin, Zoë Sprokel and Paul Dudenhefer. The views expressed here are those of the authors and do not necessarily represent the views of the European Central Bank, the Banco de España or the Eurosystem.

[2] This number will increase to one when Christine Lagarde takes up the office of President of the ECB on 1 November.