The Gender Promotion Gap: Evidence from Central Banking*

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Abstract

We examine gender differences in career progression and promotions using personnel data from the European Central Bank (ECB) during the period 2003-2017. A gender wage gap emerges within a few years of hiring, despite broadly similar entry conditions. We also find a gender promotion gap prior to 2010 when the ECB issued a public commitment to diversity. Following this change, the promotion gap disappears. Using data on promotion applications, we find that this masks a gender application gap, partly driven by preferences for competition. Following promotion, women perform better in terms of salary progression.

Keywords: gender gaps, working histories, promotions, competition, central banking.

JEL codes: J16, J31, J41, J63.

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1 Introduction

Economics remains a male-dominated field. In the US, women account for 28.8 percent of PhD graduates but only a mere 13.9 percent of full professors in economics (CSWEP 2017). Despite recent efforts to turn the tide, women remain less prone to study economics, and macroeconomics in particular (Ginther and Kahn 2004). This under-representation of women is perhaps nowhere as visible as in central banks (Carney 2017, OMFIF 2019).[1]

Several explanations may account for the lack of women in high-level positions of the economics profession. One explanation is that women are less likely to apply for promotions because of gender differences in the preference for competitive environments (Niederle and Vesterlund 2007, Buser *et al.* 2014) or in bargaining abilities in the labor market (Blackaby *et al.* 2005), or more generally that "women don't ask"(Babcock and Laschever 2003). [2] The presence of children and trade-offs between family and career may also hold back women from pursuing promotions (Bertrand 2013, Bertrand *et al.* 2015, Keloharju *et al.* 2019). These explanations have in common that they are based on gender differences in psychological attributes or identity (Akerlof and Kranton 2000, Bertrand 2011). Whether these differences are due to differences of a genetic or biological nature or shaped by environmental factors is an open debate. Apart from these supply-side explanations, a fourth explanation is gender-based discrimination in promotion decisions. For instance, Goldin and Rouse (2000) find that women are more likely to be selected when the identity of candidates is being concealed.

A complimentary view is that these differences in labor market outcomes between men and women arise from multiple equilibria. The multiple equilibria view is based on the premise that there are no fundamental differences between men's and women's skills or abilities in certain male dominated fields. But the expectation that women will not

[1] See https://www.ft.com/content/ and https://www.washingtonpost.com/news/.

[2] Indeed, a recent survey conducted by the American Economic Association (2019) depicts a highly competitive climate in the economics profession that is hostile to women.

perform in those fields becomes self-sustaining. For example, the framework proposed by Albanesi and Olivetti (2009), if women are expected to devote more time to "home production", they will be offered contracts that reward them less for high effort in market work. Women will then optimally choose to exert less effort in market work, obtain lower pay, and devote more time to home work as their opportunity cost of time is lower, thus fulfilling the expectations. According to this view, the social norms that shape gender differences in labour market outcomes are not hard-wired but can be moved by policy.

What holds back the career progression of women? Can corporate diversity policies mitigate gender differences in promotion outcomes? Despite a large body of literature on gender differences, there is no agreement on the importance of diversity policies and their impact on labor market outcomes. Existing studies on corporate diversity policies have primarily focused on the impact of gender quotas at corporate board level, not policies that affect employees throughout the organization. A key open question is whether such policies improve labor market outcomes for women.

In this paper, we analyze the career progression of men and women at the European Central Bank (ECB), one of the major central banks in the world, using confidential data from its personnel records and selection campaigns. In 2010, the ECB issued a public statement supporting diversity and took several measures to support gender balance throughout its organization. This provides a unique setting to study alternative explanations for the differences in career progression between men and women in the economics profession. Specifically, we exploit the change in diversity policy to assess the impact of corporate diversity policies on promotion outcomes. Because this policy change did not affect any fundamental differences between men and women, this public commitment to diversity can be interpreted as a coordination device, allowing us to test for the relevance of the multiple equilibrium view. While the economics literature has assessed the impact of gender quotas for corporate board seats on corporate decisions, to our knowledge we are the first to consider the impact of broad-based corporate diversity policies on female promotion outcomes.

By exploiting the complete personnel records of a large organization, we can provide

a more comprehensive analysis of career progression across various job levels within an organization, in contrast to much of the literature that focuses on gender differences at corporate board or leadership levels. The use of personnel records also has the advantage of being less prone to selection bias and omitted variable bias as compared to studies using survey data. Moreover, in contrast to much of the literature on promotion decisions, we simultaneously consider the role of promotion applications and decisions when identifying the drivers of the promotion gap. Analyzing promotion decisions without accounting for gender gaps in applications would bias the results. We are able to do so because we have information on both promotion applications and decisions, while existing literature has focused on only one of these dimensions. These advantages come at the cost that findings may not carry over to other organizations. However the gender mix at the ECB is comparable to that of other central banks and international organizations that mainly employ economists among their professional staff (IMF 2019). Given the influence central banks wield over the economic well-being of the public at large, a better understanding of the factors that hold back women at these institutions is of great importance. Research on gender diversity at central banks has thus far focused exclusively on the impact of the composition of the central bank's board on monetary policy decision-making (e.g. Charléty *et al.* 2017). Ours is the first paper to study the career progression of women at central banks.

Our findings are as follows. First, we show that a wage gap emerges between men and women within a few years of hiring, despite roughly similar initial conditions in terms of salary levels and other observables. This wage gap grows steadily with tenure. Second, we find that women are less likely to be promoted to a higher salary band prior to the change in corporate diversity policy in 2010, while this promotion gap disappears following this change. The fact that promotion outcomes responded to this policy change which in and of itself did not affect fundamentals suggests that, at least for this pool of workers, the multiple equilibria view is relevant. Third, using detailed data on selection campaigns available since 2012, we examine the selection process for promotions and find that women are less likely to apply for promotion opportunities, even when they hold

the same qualifications and work experience as men. We coin this difference the gender application gap. Moreover we confirm that during this period women are as likely to be promoted as men. This points to a compositional effect whereby women conditional on applying are more likely to be promoted, other things equal. The gender application gap is larger for women that compete for promotion within a stronger peer group, suggesting that aversion to more intensive competition partly drives this application gap. Following promotion, women perform better in terms of salary progression, indicating positive selection. We do not find evidence that the presence of children or the composition of the selection committee, including the fraction of women on the panel, alters these results.

Taken together, our results point to the effectiveness of corporate diversity policies in reducing gender bias in promotion rates and lend support to the multiple equilibria view that such policies can act as a coordination device. The results on selection campaigns show that the convergence in promotion rates following this policy change masks remaining gender differences in promotion applications. This suggests that supply-side explanations remain relevant to explain gender differences in promotion applications. In particular, we find that women are less likely to apply when they expect to operate in a more competitive environment, consistent with the experimental evidence in Niederle and Vesterlund (2007) on gender differences in the preference for competitive environments.

Our paper relates to a growing literature on gender gaps. Much of this literature has focused on measuring the wage gap between men and women, and seeking explanations for this gap. These explanations range from differences in abilities and preferences over jobs (e.g., Polacheck 1981, Azmat and Ferrer 2017) to (individual or universal) discrimination (e.g. Goldin and Rouse 2000). Women tend to be more risk averse and less competitive, with women performing more poorly in competitive environments and shying away from such competitive environments (Gneezy *et al.* 2003, Niederle and Vesterlund 2007, Buser *et al.* 2014, Brands and Fernandez-Mateo 2017), while men tend to be over-confident (Barber and Odean 2001, Bordalo *et al.* 2019). In terms of biases from social norms and discrimination, there is evidence that following deregulation of banking markets the wage premium of men decreased and the proportion of women in managerial positions

increased (Black and Strahan 2001), that both men and women rate male job applicants higher for jobs that require math skills (Moss-Racusin *et al.* 2012, Reuben *et al.* 2014), that legislation that increases pay transparency reduces the gender pay gap (Bennedsen *et al.* 2019), and that women are more severely punished for financial misconduct (Egan *et al.* 2017).

Career-family balance considerations and the presence of children also play an important role, with a close link between career interruptions and earnings growth (Lazear and Rosen 1990). Women remain dominant providers of child care within the household, while many of higher-paying jobs have long hours and inflexible schedules, and many of the financially more rewarding careers require no job interruptions to stay on the "fast track"(Goldin 2014). Career interruptions and weekly hours worked have been found to be key factors driving the gender pay gap, with the presence of children being a main contributor to this (Bertrand *et al.* 2010). Women tend to find it difficult to *double up* between work and family, with those combining family with a career reporting to be more unhappy, sad, stressed and tired compared to those staying at home (Bertrand 2013). Differences in educational attainment are no longer an important driver with the fraction of female college graduates having caught up to the levels of men (Goldin *et al.* 2006).

Promotion outcomes have been less studied and have focused primarily on academia, arguably because of data availability and academic interest. The key question in this literature has been whether the gender pay gap is largely due to a gender promotions gap or a within-rank gender pay gap. For instance, Ginther and Hayes (1999) using data from the Survey of Doctoral Recipients from the National Science Foundation find that it takes women much longer to obtain tenure and that the gender pay gap can largely be explained by rank rather than within-rank differentials. Moreover, Ginther and Kahn (2004) find using the same survey that this promotion gap is especially true in the field of economics when compared to other fields in social sciences or the humanities. On the other hand, Blackaby *et al.* (2005) provide survey-based evidence for the UK of the existence of both a gender promotions gap and a within-rank gender pay gap

among female academic economists. They also find that female academic economists are less likely to be promoted in part because they receive less outside offers. Most of this literature focuses on promotion outcomes, not applications. An exception is Bosquet *et al.* (2019) who analyze the national promotion system of French academic economists and show that women are less likely to enter promotion contests. Promotion gaps have also been found in non-academic fields. For instance, Azmat and Ferrer (2017), using survey data of US law firms, find that male lawyers perform better in terms of hours billed and new client revenue and that this enhances their subsequent promotion prospects, and Kunze and Miller (2017), using Norwegian register data, find that career progression is faster for women with female bosses. Our finding that salaries progress faster for women following promotion is reminiscent of the work by Card *et al.* (2020) who find that conditional on publication in a top academic journal, women have higher citations, implying that the bar for promotion is higher for women.

The impact of corporate diversity policies on labor market outcomes has primarily focused on the impact of gender quotas for corporate board seats and the role of mentoring in promotion outcomes. Evidence of the success of gender quota policies is mixed. For instance, Bertrand *et al.* (2019) show that while the gender gap in earnings within boards fell following the establishment of such quotas in Norway, there was no such effect on the salaries of similarly qualified women who were not appointed to boards. Moreover, Ferrari *et al.* (2018) find that for Italy, the introduction of quotas increased the educational attainment of board members and had a positive impact on stock returns. On the other hand, Ahern and Dittmar (2012) find that the Norwegian quota led to less experienced boards, prompting declines in firm valuation and deteriorating operating performance, while Matsa and Miller (2013) find that the quota prompted changes in corporate decisions, with affected firms increasing salaries and employment levels. More generally, Matsa and Miller (2011) find that the share of women on corporate boards directly influences the share of female executives.

The role of mentoring in labor market outcomes has been primarily studied in the management and sociology literature. Mentoring has been found to positively influence

the chance of a promotion (Hunt and Michael 1983, Dreher and Ash 1990), and there is some evidence that this may be particularly important for women, both in overcoming organizational barriers and in serving as role models (Noe 1988). Recent experience with mentoring programs for assistant professors in economics also point to preliminary benefits in publication and grant application outcomes (Blau *et al.* 2010). More generally, mentoring programs are found to be more effective than training programs aimed at reducing managerial bias in enhancing corporate diversity (Dobbin and Kalev 2013). However, none of these studies consider career progression or promotions directly.

Other related work has studied the impact of gender composition of selection committees on the promotion gap. For instance, Bagues *et al.* (2017) analyze data from the Italian and Spanish national academic appointment systems and do not find evidence that a larger number of women on the evaluation committee enhances outcomes for female candidates. Moreover, male committee members become less favorable toward female candidates when women are on the committee, consistent with theories that the entry of women can contribute to strengthen male identity (Akerlof and Kranton 2000).

More generally, our work relates to an extensive literature on wage and promotion dynamics within firms (e.g., Medoff and Abraham 1980, Baker *et al.* 1994, Gibbons and Waldman 1999). Like us, this literature also considers career progression within firms. We contribute to this literature by considering the role of gender.

The paper proceeds as follows. Section 2 describes the institutional setting. Section 3 describes the dataset. Section 4 presents results on gender differences in pay, and section 5 presents results on gender differences in promotions, including the impact of the 2010 change in corporate diversity policy. Finally, section 6 concludes.

2 Institutional background

Our analysis is based on the personnel files of the ECB. The ECB is the central bank for the 19 member states of the euro area and was established in 1998. The ECB's workforce consists of over 2,500 staff. The ECB, similar to other major banks, has a substantial

gender imbalance, especially at managerial levels and among economist staff (IMF 2019).[3] The ECB is organized into several departments that each have a distinct organizational function. The workforce of each department consists of managers, professional staff, and support staff. Each department consists of several divisions. Each division is overseen by a manager and each department is led by a senior manager. Professional staff are mapped to a division within a department.

The focus of this study is on those departments that mainly employ economists – the policy departments, the research department and the statistics department – to enhance comparability across individuals.[4] Within these departments, most staff hold a degree in economics or related field. The educational attainment and academic publication record of these experts is similar to that of professional staff at other major central banks.[5] The majority of professional staff enter the ECB without prior work experience straight from university. There is limited mobility across departments (less than 5% of staff has worked in more than one department) and the attrition rate among professional staff is low at 0.4%. The result is a relatively homogeneous workforce.

Our analysis focuses on professional staff across salary bands F/G, H and I. The typical job titles across these salary bands include *Expert* for salary band F/G, *Principal expert* for salary band H, and *Adviser* for salary band I. Salary band F/G is the level at

[3]At end-2017, women accounted for 39.6% of staff at professional expert level and 17.1% of senior managers.

[4]Specifically the departments included in the analysis include Economics, Monetary Policy, Market Operations, Market Infrastructure, International, Financial Stability, Risk Management, Research, and Statistics. Remaining departments include Administration and Budget, Banking Supervision, Banknotes, Human Resources, and Legal.

[5]For instance, according to RePEc ranking, the ECB has a similar number of authors as the US Federal Reserve Board and the ranking of its research output is similar to that of the Federal Reserve Board and the Federal Reserve Bank of New York.

which experts enter the ECB without work experience. [6] The complexity of tasks and job responsibility increases across these salary bands.[7] The work of all three groups of professional staff is overseen by managers. A typical *Expert* will have a variety of tasks, consisting of a combination of policy and analytical work. Tasks are assigned by the line manager and spread evenly across economists, who receive a mix of low status and high profile tasks. While *Experts* typically operate in small teams, their own contributions tend to be well specified and delineated, with clear deadlines and deliverables, allowing them to operate independently from other team members for a large fraction of their work. All work except own research is subject to review and approval by the line manager.

Salaries are paid according to different salary bands, and salaries within each band increase in steps, such that each step is 0.25% higher than the previous one. Salary increases are the outcome of performance reviews. Salaries are reviewed annually based on each staff member's personal development and contribution to the performance of the organization. This salary review is a comparative exercise and, as such, the individual contribution of each person is assessed relative to that of their peers within the same department. According to this, each staff member is granted a number of steps, ranging from 0 to 14. In addition to a salary increase, individuals can also receive a cash bonus equivalent to up to 5% of annual salary. Bonuses reward exceptional contributions of a shorter term-nature and take the form of one-off lump sum payouts. Bonuses are awarded to only a small fraction of individuals each year and because they do not alter salary levels have a small effect on life time earnings. Salary increases and bonuses for staff members are approved by each department's senior management, after a calibration meeting with

[6]Salary band F/G consists of two bands–F and G–and progression between these bands is based on performance and does not require a promotion decision.

[7]The job description for *Experts* is to conduct policy analysis and research. *Principal experts* are responsible for leading small teams of Experts. *Advisers* are responsible for coordinating major policy and research projects and assist management in developing the work program for the department.

all managers in the department.[8]

Career progression within a salary band is granted after performance reviews, while promotions to the next salary band require winning a selection campaign. A selection campaign consists of several stages, including job application, interviewing, and selection. Selections follow an interview. The selection committee typically consists of representatives of the hiring department, the human resources department, and a third department, who operate at levels above or at the same level as the advertized position. Following the selection process, the selection committee agrees on a ranking of candidates, and offers the position to the highest ranked candidate.

Members of staff are eligible for a number of child care benefits, including 20 weeks of fully paid maternity leave, 3 years of unpaid parental leave, and subsidized childcare. The ECB maintains four childcare facilities that are open to children up to six years of age.

In late 2010, the ECB made a fundamental shift regarding its attitude to gender diversity, taking several steps to raise the awareness of the importance of gender diversity and to enhance the diversity of its workforce. The ECB's Executive Board announced this policy shift by issuing a public statement on diversity indicating that the ECB aims to be a workplace where staff members feel included and respected, and where their individual talents are valued, developed and rewarded. The public statement reads as follows: "Diversity is a key contributor to our success. As a European Union institution, the ECB aspires to be an organization in which diversity is welcomed and appreciated in all its facets for the richness that it offers. The facets of diversity include – but are not limited to – gender, nationality, religion, sexual orientation, ethnic origin, age, cultural background and disability. "While the statement refers to diversity and inclusion in a broad sense, it was accompanied with a diversity action plan that centered around gender diversity.[9]

[8]The annual budget at the ECB available for salary increases is 1.5% of the salary bill and a separate budget of 1.5% of the salary bill is available for bonuses.

[9]The diversity action plan consisted of several measures including the introduction of a gender target

3 Data

The two datasets that we use in this paper are derived from the personnel records of the ECB and cover the period up to 2017. The information was provided on an anonymous basis and transformed in such a way that while individuals cannot be identified, much of the relevant information is preserved. We limit the sample to professional staff across three different salary bands in the policy areas, the research department and the statistics department. With this selected group we focus on a broadly homogeneous pool of staff in terms of human capital and experience, ensuring comparability across individuals.

Dataset 1: Working histories 2003-2017 The first dataset includes demographic characteristics and working histories of the employees over the period 2003 to 2017. The unit of analysis is the employee by month and year since entry to the ECB. Our salary measure is the number of salary steps, as reported in Table A.1.[10] Each step corresponds to a salary level in euros, with salaries increasing in the number of steps.

We focus the analysis on the period 2003 to 2017, as coherent information on salaries is available only since 2003. However, we have complete historical information to construct the working histories for each employee going back to the establishment of the ECB in 1998. Our panel consists of 1,082 workers and 85,282 monthly observations in total. We use this sample to explore the existence of gender pay and promotion gaps over the period 2003 to 2017, including the impact of the change in corporate diversity policy.

Dataset 2: Recruitment campaigns 2012-2017 Our second dataset consists of information on each recruitment campaign since 2012, following the policy change. For

for managerial positions, the use of gender-neutral language in job advertisements, the requirement of gender-balanced recruitment campaigns for managerial positions, the introduction of a women's leadership program, the introduction of a mentoring program for women, and the establishment of a gender diversity committee with staff representatives from each department. By 2014, all these actions were fully implemented.

[10]The salary steps in our sample of professional staff go from 263 to 544.

each campaign we have information on the characteristics of internal potential candidates, the presence of external candidates, the composition of the recruitment panel, and the salary band and department of the open position.

We limit the sample to all potential candidates for promotion opportunities to the Principal expert level for a total of 62 promotion campaigns, covering 795 applications. The data allow us to distinguish between applications and promotion decisions.

3.1 Variable definitions

Based on these two datasets, we construct a number of variables for the empirical analysis. *Female* is a dummy variable that takes a value of one if the employee is a woman and zero otherwise. *Tenure within band* is the number of years that the employee has been in the current salary band. *Principal (Adviser)* is a dummy variable that takes a value of one if the employee is currently in salary band H (I), and zero otherwise. *Age* is the age of the employee in intervals of five years. We construct age dummies for each age bracket. *Salary steps* indicates the salary level, in steps, of the employee. *Children* is a dummy variable that takes a value of one if the employee has dependent children, and zero otherwise. *Top performer* is a dummy variable that takes a value of one if the employee received a salary increase that is among the top 25% in her department at least once in the past two years, and zero otherwise. *Bonus* is a dummy variable that takes a value of one if the employee received cash bonuses at least once in the past two years, and zero otherwise. Since 2012, employees can participate in a mentorship program. Most mentees are women. *Mentee* takes a value of one if the employee participated in the mentorship program at east once in the past two years, and zero otherwise. Employees receive a head of household allowance if they have a spouse with a gross annual income below a certain level (currently €57,211) or if they do not have a spouse but one or more dependent children. *Head of household* takes a value of one if the employee receives the allowance, and zero otherwise. *External campaign* is a dummy variable that takes a value of one if the campaign is open to external candidates, and zero otherwise. *Share of external candidates* is the ratio of external candidates to total candidates that have

applied to a particular selection campaign. *Competition index* is the fraction of potential candidates for promotion in the division that have a salary at the upper end of the salary band, defined as a salary of above 100 steps (up to a maximum of 169 steps). *Female competition* takes a value one if the number of potential female candidates in the division with a salary of above 100 steps in the salary band is more than the 30 percent of the total pool of potential candidates in the division. The candidate in question is excluded from the calculation of the competition variables. *Paid maternity leave* equals the percentage of time on maternity leave since entry. *Unpaid parental leave* equals the percentage of time on unpaid leave to take care of children since entry. *Size of selection panel* is the logarithm of the number of panel members on the selection panel. *Share of female panelists* is the number of female panel members divided by the total number of panel members.

3.2 Descriptive statistics

Descriptive statistics of our main variables can be found in Table 1. The data cover 1,082 employees over the period 2003 to 2017, for a total of 85,282 observations. As in the overall economics profession, women are underrepresented, totaling 31% of all employees. Moreover, the number of women decreases at higher ranks, from 36% at Expert level to 24% at Principal expert level and 17% at Adviser level, pointing to a leaky pipeline in women's career progression. Men tend to be slightly older on average at 40 years, compared to 39 years for women, and salary levels tend to be somewhat higher for men, 382 steps for men against 357 steps for women.

The summary statistics also indicate that women are less likely to be promoted prior to 2011, with only 0.22% of women in the sample receiving a promotion as opposed to 0.49% for men. However, after 2011, following the changes in corporate diversity policies, this difference disappears.

The bottom panel of Table 1 presents descriptive statistics for the campaigns dataset. This dataset covers 794 applicants and 61 promotions for a total of 23,209 potential applicant observations over the period 2012 to 2017. The share of external candidates

per campaign averages 1.5% and the share of female panelists per campaign averages 41.2%. Female applicants tend to have been longer in their salary band prior to applying for a promotion, for a total of 8 years as opposed to 7 years for men. Conditional on applying, women are more likely to win the campaign than men, with a probability of winning of 13% for women compared to 6% for men. Female applicants tend to have more experience (i.e., longer tenure within the band), are more likely to have been top performers, and more likely to have children.

Selection bias is a common problem in many studies that compare the career progression of men and women. For instance, differences in prior work experience between men and women could introduce a bias. One advantage of our setting is that we have a highly homogenous workforce of economists that typically join the ECB straight out of graduate school without prior work experience, resulting in a sample of men and women with similar characteristics when they enter. Indeed, most new employees enter at young age with graduate degrees and comparable salaries. Table A.2 reports descriptive statistics of both men and women upon entry at the ECB, broken down as well by two different sub-periods (before 2011, and from 2011 onwards). We limit the sample here to the initial observation of employees that enter at the Expert level. In several variables of interest, gender differences between newly hired men and women are small, allaying concerns about selection bias in our sample. Male employees at entry are slightly older and more likely to have children than females but these differences are not always significant. Salary offers at the ECB for incoming staff are largely determined based on the number of years of schooling and work experience. While we do not have information on prior work experience, the data therefore suggests that there are no substantial gender differences in prior work experience for men and women in our sample.

Figure A.1 shows variation over time in the proportion of women in each of the salary bands. We see there is an increase over time in the fraction of women at higher ranked positions, consistent with a narrowing of the promotion gap.

4 Gender wage gap over the career

In this section, we analyze the gender wage gap of professional staff over time and across salary bands. The purpose of this analysis is to assess whether a wage gap exists and whether this is due to a promotions gap or a within-rank gender pay gap.

The left-side panel of Figure 1 shows raw salary profiles by gender since entry in the salary band for entry-level Experts. The initial wage gender gap is small, as one would expect, given the similar initial conditions in terms of human capital and experience between men and women in our sample. This wage gap however increases over time, as the career of the individuals progresses: the initial average wage gender gap of 5 salary steps (1.25%), increases to 8 steps in 1 year, to 25 steps in 5 years, and becomes almost 6 times bigger (30 steps or 7.25%) on average after 10 years. Wage gender gaps are much smaller for workers who stay in the same salary band (see right-side panel of Figure 1): 5 salary steps at entry, 6 steps after 1 year, 8 steps after 5 years, and 10 steps (about 2%) after 10 years. This suggests that promotions are a key contributor to the wage gap over time. Indeed, on average, the gender pay gap is 7% for the whole sample, while it is 1.8% for those employees who stay within the same salary band.

4.1 Wage model

To account for individual features and other potential factors shaping gender wage gaps, we estimate a linear regression model for the log salary steps S_{it} of employee i at time t:

$$S_{it} = \alpha^S + \beta^S Female_i + X'_{it}\gamma^S + \delta^S_t + \epsilon^S_{it} \tag{1}$$

where the dummy $Female$ is equal to one for women, the vector X_{it} includes individual characteristics, such as age, department, salary band, tenure in the band, and family structure, δ_t are time dummies (year and month), and ϵ^S_{it} is a random error term with unrestricted correlation at the individual level. Model (1) is estimated by OLS, and β^S

is our coefficient of interest. [11] Regression results are shown in Table 2. All regressions include department and time dummies. Robust standard errors are clustered at the individual level.

The results indicate that once we control for time dummies and observable characteristics of the workers, we move from an unconditional gender wage gap of 7% to a conditional gender wage gap of 3.6% (column (1)). However, when we include salary band dummies in the regression or restrict the sample to entry-level Experts, the estimated conditional gender wage gap drops to 1.1% and 1.5%, respectively (columns (2) and (3)). The lower within-band wage gap suggests that promotions are a major contributor to the gender wage gap.

Thus far, we have not considered the role of children. Children are commonly found to be a key driver of wage gaps. However, in our sample, this gap is not stronger for women than for men. Indeed, when we expand the regression by including a control for the presence of children and its interaction with the *Female* dummy variable, we find that the gender pay gap for women in our sample is not driven by the presence of children (column (2) of Table A.3). We thus conclude that the gender wage gap at the ECB is largely driven by promotions.

5 Gender differences in promotions

In this section, we document gender differences in promotions using two complementary datasets: data on working histories and data on recruitment campaigns. In the first dataset, promotions are defined as movements across salary bands. This dataset covers the period 2003 to 2017 and allows to test whether there have been any changes in the

[11] We do not include individual fixed effects in these regressions because we are interested in estimating the effect of *Female*. As shown in Table A.3, Column (2), including individual fixed effects does not add much explanatory power and does not qualitatively alter the estimated coefficients on other covariates. We include individual fixed effects when we analyze differential effects in promotion outcomes in the next section.

promotion gap over time, including due to the 2010 public statement on diversity. The second dataset covers only the period 2012 to 2017 but has the advantage of containing information on promotion applications, offering detailed information on promotion applicants, and allows to study the relevance of a promotion application gap.

5.1 Probability of promotion: information on working histories (2003-2017)

The average monthly probability of promotion to a higher salary band in our sample is 0.004 over the period 2003 and 2017. This amounts to a promotion probability of 4.8% in annual terms, or about 48% after 10 years. Figure 2 shows that this unconditional probability of promotion is lower for women than for men. After 10 years, about 50 percent of men have been promoted to at least the Principal expert level while the same is true for only 30 percent of women.

To control for employee heterogeneity and assess the drivers of this gender promotion gap, we estimate the following linear model for the probability that a given worker i moves from the Expert level at time t to the Principal expert or Adviser levels at time $t+1$:

$$P_{it} = \alpha^P + \beta^P Female_i + Z'_{it}\gamma^P + \delta^P_t + \epsilon^P_{it} \tag{2}$$

where, as before, the dummy $Female$ is equal to one for women, Z_{it} is a vector of individual characteristics (such as personal and family characteristics, worker performance measures, and other worker characteristics), δ^P_t are time fixed effects, and ϵ^P_{it} is a random error term with unrestricted correlation at the individual level. Model (2) is estimated among staff at the Expert level until the moment of the individual's promotion, and β^P is our coefficient of interest.

Regression results are shown in Table 3 to 5. All regressions include department, time and age dummies. As before, robust standard errors are clustered at the individual level. We find that, on average for the whole sample period, the estimate of β^P is negative and significant, see Table 3. The probability of promotion for women is substantially lower

than for men, with a gap of 0.17 - 0.19%, or about 45% of the average probability of promotion of 0.4%. When looking at other individual characteristics that could influence the probability of promotion, we find that the likelihood of promotion is also larger among those with children. Employees that have recently been top performers or have received bonuses, proxying for performance, are more likely to be promoted, while spending time on unpaid leave to take care of children reduces it. Taking paid maternity leave or having joined the ECB's mentoring program do not appear to influence the probability of promotion. These are average effects over the whole sample period. In the next subsections, we consider different subperiods and explore differential effects of individual characteristics across genders.

5.1.1 Impact of the 2010 change in corporate diversity policies

In 2010, the ECB's Executive Board issued a public statement on diversity and announced a package of measures to support gender balance, to be implemented in subsequent years. This policy change raised the awareness of the importance of diversity in the workplace. Figure 3 shows that this change in diversity policies had material effects on gender differences in promotion outcomes: the gender gap in promotions, defined as the difference in the promotion rates of men and women, narrowed from 2011 onwards. While prior to 2011, the gender promotion gap stood at over 37% after ten years since entry, this gap decreased to about 9% on average after 2011, or a decline of about 80 percent.

We next assess more formally the impact of the 2010 change in diversity policies on the gender promotion gap. We split the sample into two subperiods – before and after 2011 – for which we estimate the same specifications of Model (2) as in Table 3. The results are presented in Table 4. They confirm that after 2011 women are as likely to be promoted as men (columns (4)-(6)). While prior to 2011, the promotion rate of women was about 0.25% lower than for men, after 2011 women had closed this gap.

The fact that promotion outcomes responded to the change in diversity policy, which in and of itself did not affect fundamentals, lends support to the multiple equilibria view that such policies can act as a coordination device to reduce gender bias in promotion

rates. Our interpretation of the results critically depends on the shift in the promotion gap to have taken place in 2010, when the ECB announced its corporate diversity policies. To show that the decrease in the gender promotion gap took place in 2010 and not in outer years, we re-estimate model (2) using three-year rolling samples. The estimates of β^P for all possible three-year sample periods are displayed in Appendix Table A.4. There is a clear break in 2010: the three-year rolling estimates of β^P are negative and statistically significant in all years prior to 2010, and these estimates are no longer statistically significant from 2010 onwards.

5.1.2 The gender promotion gap and individual characteristics

Thus far we have shown that women have a slower career progression prior to the gender diversity policy change. While the policy change did not alter fundamentals, it could still be that the differences in the promotion gap over time and across individuals are driven by individual traits. To this end, we enrich our empirical specification on promotion outcomes by considering differential effects along individual characteristics. Specifically, we include interactions between the *Female* dummy variable and a vector of variables capturing other individual characteristics: an indicator whether the individual was a top performer in the past two years based on the annual performance review, an indicator whether the individual received a cash bonus in the past two years, an indicator whether the individual joined the mentorship program, and an indicator whether the individual has dependent children. These regressions also include individual fixed effects. This allows us to more precisely estimate the interaction effects by abstracting from any time-invariant individual characteristics, including the level effect of being a woman.

The results are presented in Table 5. Column (1) presents results for the full sample period 2003-2017. In terms of differential effects, we find that women with children are less likely to be promoted. The other interaction terms do not enter significantly. Next we split the sample in the period before and after the policy change. The results are presented in columns (2) and (3). We find that women that received a bonus are less likely to be promoted prior to 2011. This is consistent with the notion of a performance-

reward bias whereby bonuses are used as a consolation prize for not being promoted.[12] Both the performance-reward bias and the effect of dependent children disappear in the period following the policy change. Indeed, following this change we no longer find a differential effect for women along any of the individual characteristics considered.

Taken together, the results in Tables 3 and 5 show that differences in individual traits no longer impact the promotion gap and that the promotion gap disappears following the policy change. Since the policy change did not induce a change in any fundamental differences between men and women, our interpretation is that the results are consistent with a multiple equilibria view whereby the ECB's commitment to diversity acted as a coordination device to reduce gender bias in promotion rates. Prior to the policy change, the observed low promotion rates resulted in self-sustaining expectations that women will not perform in higher ranked jobs. The policy change, by raising awareness across the organization of this bad equilibrium outcome, shifted the outcome to an equilibrium whereby promotion rates across men and women were equalized.

5.2 Getting promoted: information on recruitment campaigns (2012-2017)

To be promoted, candidates have to go through a recruitment process and for that they need to apply first. The absence of a gender gap in promotions after 2011 can mask gender gaps in the probability of applying and/or the probability of winning the campaign once being a candidate. The analysis in this section therefore explores in more depth the selection process by using detailed data on promotion campaigns, which is available for the period 2012 to 2017.

[12]This result is similar to that of Castilla (2008) who using personnel data from a large service organization finds evidence of a performance-reward bias, whereby women receive lower salaries than men with equal ratings on performance evaluations.

5.2.1 Probability of winning a promotion campaign

For each recruitment campaign at the Principal expert level, we collect information on the pool of potential candidates among employees at the Expert level and compute the probability of getting a promotion to the Principal expert level.[13] We exclude external applications because we miss information on key individual traits for these candidates.[14]

We assume a linear model for the probability that a given worker is promoted after winning a particular campaign c:

$$W_{ic} = \alpha^W + \beta^W Female_i + V'_{ic}\gamma^W + \delta_c^W + \epsilon_{ic}^W \tag{3}$$

where the dummy $Female$ is equal to one for women, V_{ic} is a vector of individual characteristics (such as personal and family characteristics, worker performance measures, and other worker characteristics), and δ_c^W are campaign fixed effects, and ϵ_{ic}^W is a random error term with unrestricted correlation at the individual level. Model (3) is estimated among potential candidates, and β^W is our coefficient of interest.

Table 6 reports OLS estimates of the probability of being promoted. All estimations include campaign, department and age dummies. Standard errors are clustered at the campaign level. Across specifications, we do not find a negative impact of being female on the probability of winning the campaign. This finding is consistent with the results on promotion probabilities after 2011 in Table 4. In addition, we find for this reduced sample that employees that have recently been top performers or have received bonuses are more likely to be promoted. This likelihood is also larger among those who have joined the ECB's mentoring program (column (1)). The remaining individual characteristics capturing the presence of children and leave from work do not enter significantly (columns (2) and (3)). Finally, we replace the campaign dummies with variables that capture the

[13] The dataset only includes a handful of promotions to the Adviser level and does not cover promotions above this level.

[14] In some specifications, we control for the fraction of external applicants in each campaign to account for the degree of external competition for jobs.

composition of the panel–the number of panel members and the share of female panelists–and the share of external candidates. We do not find evidence that any of these variables influences the campaign outcome (column (4)).

The promotion process has stages: the application stage and the decision stage. Formally, the probability of promotion, W, for any employee is the product of the probability of winning the campaign, conditional on having applied, and the probability of applying for the promotion, $\Pr(W) = \Pr(W|A = 1) \times \Pr(A)$.

This has two implications for our empirical analysis. First, the estimation of model (3) in Table 6 might be biased if the selection of candidates into the candidates pool is not accounted for. Second, even if there is no overall promotion gap, there could still be a gap in the underlying probabilities $Pr(A)$ and $Pr(W|A = 1)$.

To address these issues, we first estimate the probability of applying for a promotion $\Pr(A)$, thus exploring a potential gender applications gap. Then, we estimate the probability of promotion $Pr(W)$ by using the Heckman (1979) selection model approach.

5.2.2 Probability of applying

We consider a linear model for the probability that the potential candidate i applies for a promotion in campaign c :

$$A_{ic} = \alpha^A + \beta^A Female_i + Y'_{ic}\gamma^A + \delta^A_c + \epsilon^A_{ic} \tag{4}$$

where, as before, the dummy $Female$ is equal to one for women, the vector Y_{ic} of individual characteristics includes personal and family characteristics, worker performance measures, and other worker characteristics, δ^A_c are campaign fixed effects, and ϵ^A_{ic} is a random error term with unrestricted correlation at the individual level. Model (4) is estimated among the same set of potential candidates as model (3), and β^A is our coefficient of interest.

Table 7 presents the main results. All the specifications include campaign fixed effects and we consider personal and family characteristics, job features, and worker performance measures. We find that women are less likely to apply than men to an open vacancy. We

refer to this difference as the gender applications gap.

The raw gender gap for campaign applications is around 1% and statistically significant. This gap remains broadly unchanged after controlling for individual and family characteristics, varying from 1.4% to 1.8% depending on the regression specification. The magnitude of the applications gap is substantially large, given that the average application rate in our sample of potential candidates is 3.4%.

Experience on the job (measured by tenure within band) and having received positive performance evaluations in the last two years (in the form of being recognized as a top performer in the annual appraisals, and/or having obtained a bonus) significantly increases the likelihood of applying for a promotion. We also obtain a positive effect for having joined the ECB mentorship program. Moreover, having children and taking unpaid parental leave are negatively associated with applying for promotion, suggesting that work-life balance considerations partly drive the decision to seek a promotion. Being the head of a household is positively associated with applying for promotion.

5.2.3 Probability of winning a campaign accounting for the probability of applying

Next, we model the probability of winning a selection campaign while accounting for the fact that only people who applied for a vacancy have a positive probability of winning the campaign. The latent probability of winning a campaign, W^*:

$$W^*_{ic} = \alpha^{W^*} + \beta^{W^*} Female_i + V'_{ic}\gamma^{W^*} + \delta^{W^*}_c + \epsilon^{W^*}_{ic} \tag{5}$$

is only observed (that is $W_{ic} = W^*_{ic}$) if the probability of applying is different from zero:

$$A_{ic} = \alpha^A + \beta^A Female_i + Y'_{ic}\gamma^A + \delta^A_c + \epsilon^A_{ic} > 0 \tag{6}$$

Variables and parameters definitions are as in models (3) and (4) above. Model

assumptions for the error terms in equations (5) and (6) are that:

$$\begin{aligned} \epsilon_{ic}^{W^*} &\sim N(0,\sigma) \\ \epsilon_{ic}^{A} &\sim N(0,1) \\ corr(\epsilon_{ic}^{W^*}, \epsilon_{ic}^{A}) &= \rho \end{aligned}$$

Equation (5) is known as the outcome equation and equation (6) as the selection equation.

Identification requires some exclusion restriction, namely some variable that drives the selection into the applicants pool which is not a determinant of the probability of wining the campaign (the outcome equation). In our case, we consider indicators of whether the worker is head of household, has children, and has taken parental leave since entry as valid selection variables. All four variables are expected to influence the decision to apply for promotion but they are not supposed to influence the promotion decisions because the selection panels do not have access to such information (campaign folders do not include information on marital status, children, household income, or leave, and it is illegal for interview panel members to ask applicants for such information during panel interviews).

Table A.5 shows estimations of the probability of being promoted using the two-step Heckman model. The outcome equation has a linear specification, while the selection equation is a probit. Similarly to what we obtained before (Table 6 and the results after 2011 in Table 4), our estimates indicate that from 2012 onwards women are as likely to be promoted as men. The inverse Mills ratio (λ) suggests that selection is not a significant issue in our dataset.

Our finding of no gender gap in the probability of promotion, $\Pr(W)$, combined with a negative gap in the probability of applying, $\Pr(A)$, suggests that there is a positive gap in the probability of being promoted conditional on having applied $\Pr(W|A=1)$, as $\Pr(W) = \Pr(W|A=1) \times \Pr(A)$. To assess this more formally, we estimate model (3) for the subsample of applicants, and obtain the results reported in Table A.6. Conditional on

having applied, women have indeed a higher probability of winning the campaign relative to men. The effect is substantial: following application, the probability of promotion is 7% higher for women than for men. This is a large effect compared to the average probability of promotion among applicants of 8%.

Taken together, these results imply that after 2011 women appear as likely as men to be promoted. This result is, however, masking a lower probability of women to apply for promotions, and a higher probability to win the campaign conditional on applying.

5.2.4 Determinants of the gender applications gap

In the previous two sections we have uncovered a gender applications gap, whereby women at the ECB are less likely than men to apply to an open vacancy. In this section we will test possible explanations for this finding.

Theory offers several explanations of gender differences in career outcomes. Two prominent supply-side explanations are the presence of children (Bertrand 2013, Bertrand *et al.* 2015, Keloharju *et al.* 2019) and aversion to compete (Niederle and Vesterlund 2007, Buser *et al.* 2014). We will test for differential effects across gender of the probability to pursue a promotion based on measures of the presence of children and of competition from highly-qualified candidates. Specifically, we extend the regression model on the probability of applying for promotion by interacting the *Female* dummy variable with measures capturing the presence of children and the competitive environment. To capture the presence of children, we include a dummy variable that indicates whether the individual has dependent children.

We consider three indicators of the competitive environment in which potential candidates take the decision to apply, distinguishing between competition from outside and within the organization and between competition from men and women. First, we include a dummy variable for whether the campaign is open to external candidates. Second, we include the ratio of potential candidates in the same division that have a comparatively high salary level, measured as a salary of above 100 steps within the salary band for Experts (the maximum salary level within this band is 169 steps). The idea is that

individuals that are approaching the top of the salary band are more experienced and therefore expected to perform well during interviews. Third, to capture competition from female candidates we include a dummy variable, *Female competition*, that takes a value of one if the ratio of potential female candidates with a comparatively high salary level in the same organizational division exceeds 30 percent. The candidate in question is excluded from the computation of these competition variables.

The results are presented in Table 8. All the specifications include campaign fixed effects. We do not find a differential effect for women of the presence of children (column (2)). However, the competitive environment does have a differential impact for women on the likelihood of applying for a promotion. Women are less likely to apply to a campaign that is open to external candidates (column (3)) and when they compete with a larger proportion of immediate colleagues with comparatively high salary levels (column (4)). These results support the view that there are gender differences in the preferences for competition, with women shying away from competitive environments, as previously documented by Niederle and Vesterlund (2007) using experimental data. Fear of competition can be interpreted as a fundamental reason why women are underrepresented at the higher ranks of the ECB. However, we also find that women are more encouraged to apply when they expect higher competition from other women (column (5)). These results are consistent with existing evidence that the effect of competition is stronger when women have to compete against men than against women (e.g., Gneezy *et al.* 2003). Therefore, the results on fear of competition are likely driven by the composition of the perceived applicant pool, which predominantly consists of men.

5.2.5 Wage progression following promotion

We have shown that, conditional on applying, women have a higher probability to win a campaign. Is this due to positive discrimination or positive selection? To distinguish between these alternative explanations, we analyze the wage progression of candidates after they get promoted. Specifically, we estimate a linear regression model of log salary steps and include interaction terms between the female and the job rank dummy variables.

A positive coefficient on these interaction terms indicates that women have a more rapid wage progression upon promotion. For these regressions we turn again to our main dataset covering the period 2003-2017. The results are presented in Table 9. The results in column (1) are for the entire sample period. We find that following promotion women perform better than men in terms of salary progression, consistent with positive selection.

The critic could argue that the policy change may favor women, both in terms of promotions and salaries, as a remedy for the existing gender wage gap, and thus that their compensation does not reflect performance. If this were true, then we should see that the salary progression of women if anything is stronger after the policy change in 2010. However, when we split the sample in the period before and after the policy change in 2010 we find that the effect, if anything, is stronger before than after 2011 (columns (2) and (3), respectively).

Taken together, these results suggest that women who are promoted experience faster salary progression, consistent with the notion that they are positively selected.

6 Conclusions

We have studied gender differences in career progress and promotions at the ECB using personnel data from its professional staff over the period 2003 to 2017. Our analysis generates two main findings.

First, a wage gap emerges between men and women within a few years of hiring, despite roughly similar entry conditions in terms of salary levels and other observables. This wage gap reflects that women are less likely to be promoted to higher job ranks until the year 2010, when the ECB issued a public commitment to gender diversity and this gap disappears. The 2010 public statement announcing the ECB's commitment to diversity can be interpreted as an equilibrium selection or coordination device. This change did not affect fundamental differences between women and men. The fact that women's promotion outcomes responded to this change suggests that at least for this pool of workers, the multiple equilibria view is more dominant than explanations based

on fundamental forces.

Second, using data on selection campaigns for the period after the policy change, we find that that women are less likely to apply for promotions. This gender applications gap can in part be explained by fear of competition associated with the composition of the perceived applicant pool. Women are less likely to apply when they face more external applicants, when they expect to compete with more experienced colleagues, and when they expect to compete primarily with men. Conditional on applying, women are more likely to win the campaign, and following promotion, their wage progression is faster than that of men, consistent with positive selection.

Since we do not have information on applications prior to the policy change, we cannot analyze whether this application gap was larger prior to the policy change. However, the observed reduction in the wage effect upon promotion in the post-2010 period, against the background of a general decline in the promotion gap over the entire sample period, suggest that, if anything, the application gap was larger prior to the policy change.

Taken together, these results suggest that at least for this pool of workers, the multiple equilibria view of the under-representation of women is relevant. The remaining application gap is likely to shrink if the applicant pool were to become more gender balanced.

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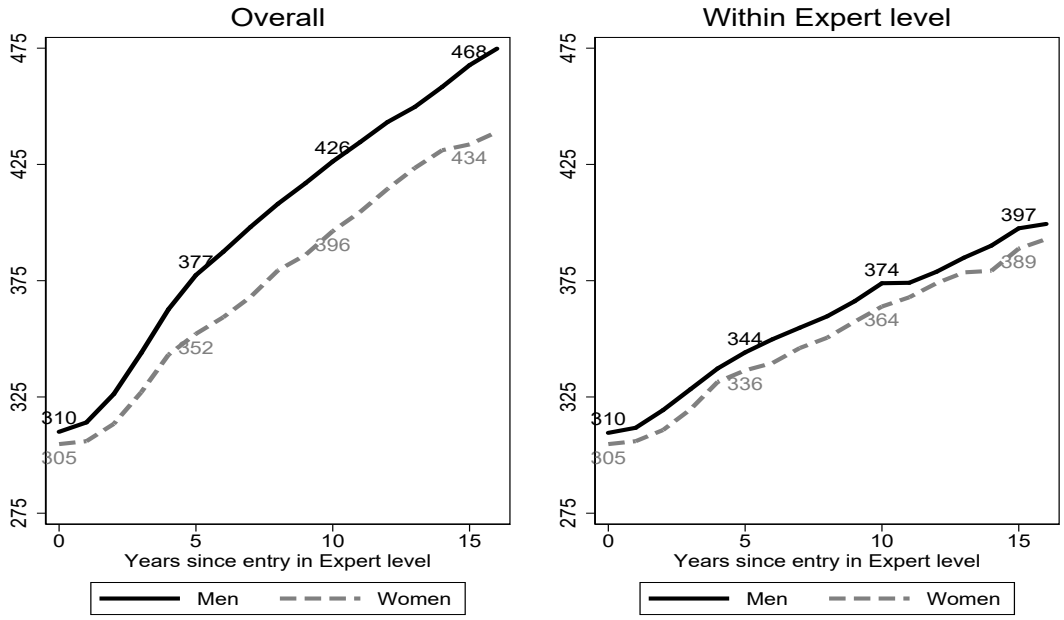
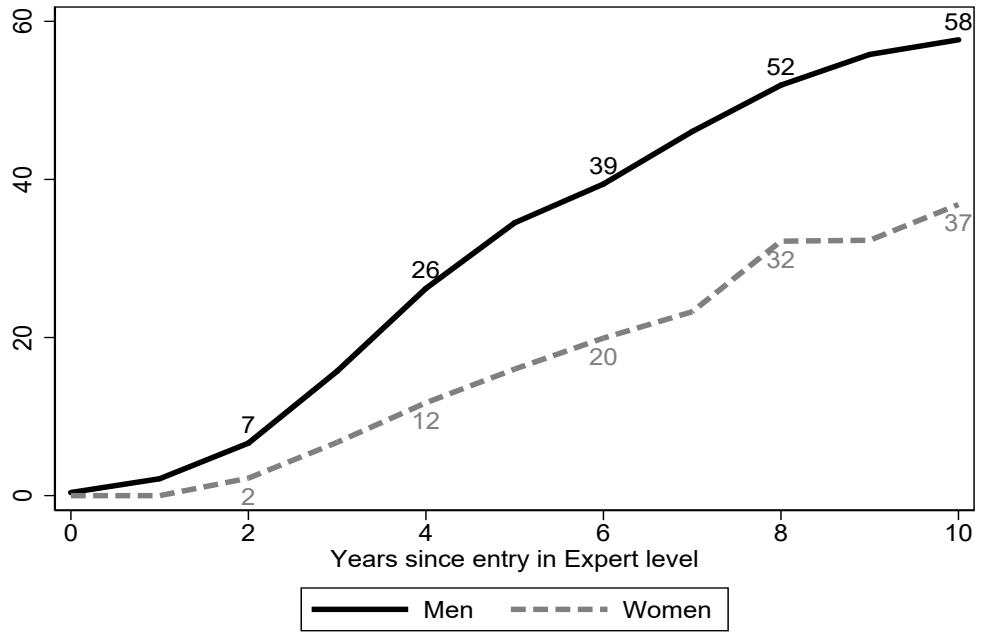
Figures and Tables

Figure 1: Wages since entry at Expert level (2003-2017)



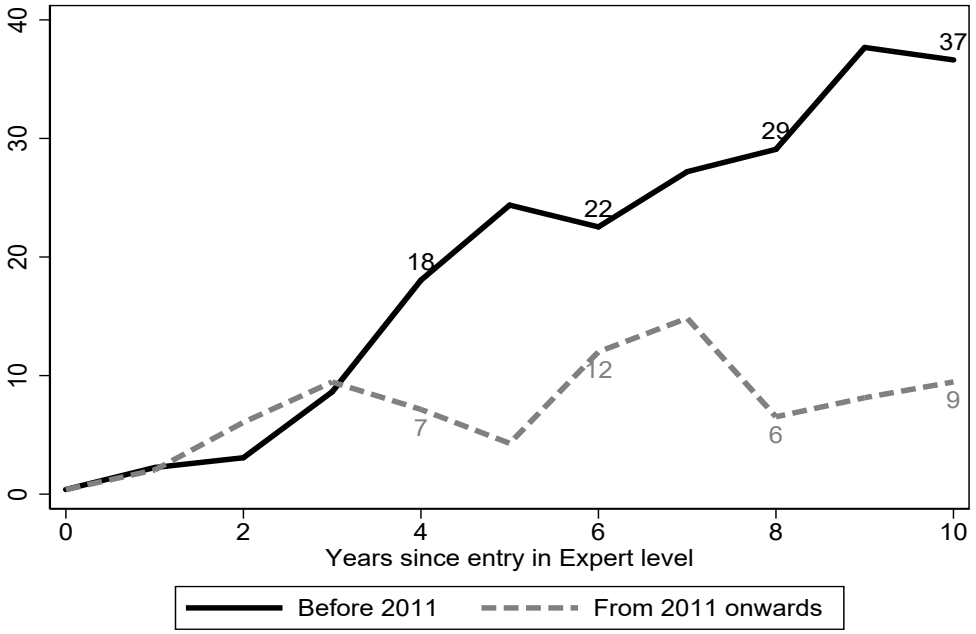
Notes: Left-panel: average step levels by gender since entry at Expert level for all the employees in our sample. Right-panel: average step levels by gender since entry at Expert level for those employees who remain at Expert level.

Figure 2: Probability of promotion at Expert level, % (2003-2017)



Notes: Average annual probability of promotion (moving from Expert level to Principal expert or Adviser level) by gender since entry at Expert level for all the employees in our sample.

Figure 3: Gender gap in the probability of promotion at Expert level, % (before-after 2011)



Notes: Gender gap on the average annual probability of promotion (moving from Expert level to Principal expert or Adviser level) since entry at Expert level before 2011 and from 2011 onwards.

Table 1: Descriptive statistics

		Total	[1] Male	[2] Female	Diff. [1]-[2]
Dataset 1: Working histories 2003-2017					
Observations	n, %	85,282	68.84%	31.16%	
Workers	n, %	1,082	68.48%	31.52%	
Observations for Experts (band F/G)	n, %	58,354	64.38%	35.62%	
Observations for Principal experts (band H)	n, %	17,641	76.00%	24.00%	
Observations for Advisers (band I)	n, %	9,287	83.21%	16.79%	
Age	mean	39.66	40.01	38.90	1.11***
Salary steps	mean	374.17	381.94	357.02	24.92***
Tenure within band	mean	5.13	5.08	5.23	-0.155***
Children (yes=1)	mean	0.55	0.55	0.55	0.00
Promotion	%	0.43%	0.47%	0.34%	0.13%**
Top performer (yes=1)	mean	0.54	0.51	0.58	-0.07***
Bonus (yes=1)	mean	0.27	0.27	0.28	-0.01***
Mentee (yes=1)	mean	0.03	0.01	0.06	-0.04***
Time on paid maternity leave	%	0.79	0.00	2.20	-2.20***
Time on unpaid parental leave	%	1.81	0.83	3.59	-2.76***
Before 2011:					
Promotion	%	0.40%	0.49%	0.22%	0.27%***
Top performer (yes=1)	mean	0.57	0.56	0.60	-0.04***
Bonus (yes=1)	mean	0.11	0.11	0.10	0.01**
Mentee (yes=1)	mean	-	-	-	-
Time on paid maternity leave	%	0.45	0.00	1.29	-1.29***
Time on unpaid parental leave	%	1.21	0.54	2.46	-1.92***
From 2011:					
Promotion	%	0.45%	0.45%	0.44%	0.01%
Top performer (yes=1)	mean	0.51	0.47	0.57	-0.10***
Bonus (yes=1)	mean	0.41	0.40	0.42	-0.02***
Mentee (yes=1)	mean	0.05	0.02	0.10	-0.08***
Time on paid maternity leave	%	1.08	0.00	2.96	-2.96***
Time on unpaid parental leave	%	2.33	1.08	4.53	-3.44***
Dataset 2: Promotion campaigns 2012-2017					
Observations (potential candidates)	n, %	23,210	64.26%	35.74%	
Observations (applicants)	n, %	795	71.82%	28.18%	
Observations (winners)	n, %	62	53.23%	46.77%	
Probability of winning (potential candidates)	mean (%)	0.27%	0.22%	0.35%	-0.13%*
Probability of applying (potential candidates)	mean (%)	3.42%	3.82%	2.70%	1.12%***
Probability of winning (applicants)	mean (%)	7.80%	5.78%	12.95%	-7.17***
Applicants:					
Tenure within band	mean	7.47	7.15	8.28	-1.13***
Top performer (yes=1)	mean	0.63	0.60	0.71	-0.11***
Bonus (yes=1)	mean	0.51	0.49	0.55	-0.05
Mentee (yes=1)	mean	0.11	0.05	0.26	-0.21***
Head of household (yes=1)	mean	0.38	0.42	0.27	0.15***
Children (yes=1)	mean	0.49	0.44	0.61	-0.17***
External campaign (yes=1)	mean	0.18	0.20	0.13	0.06**
Competition Index	mean	0.24	0.25	0.22	0.03***
Female Competition (yes=1)	mean	0.08	0.08	0.08	0.00
Potential candidates:					
Tenure within band	mean	6.29	6.03	6.75	-0.72***
Top performer (yes=1)	mean	0.50	0.45	0.57	-0.12***
Bonus (yes=1)	mean	0.39	0.37	0.42	-0.04***
Mentee (yes=1)	mean	0.06	0.03	0.12	-0.09***
Head of household (yes=1)	mean	0.32	0.38	0.21	0.18***
Children (yes=1)	mean	0.48	0.45	0.53	-0.08***
External campaign (yes=1)	mean	0.17	0.17	0.16	0.01
Competition Index	mean	0.24	0.24	0.24	0.00
Female Competition (yes=1)	mean	0.08	0.08	0.09	-0.01

*Notes: * p<0.1, ** p<0.05, *** p<0.01. Salary steps: salary level in steps. Tenure within band: years in the current salary band. Children (dummy): 1 if the employee has dependent children. Promotion (d): 1 if employee moves to a higher salary band. Top performer (d): 1 if employee's salary award is among the top 25% in her business area at least once in the last 2 years. Bonus (d): 1 if employee received cash bonuses in the last 2 years. Mentee (d): 1 if employee participated in the mentorship program in the last 2 years. Head of household (d): 1 if the spouse earns less than a certain level (currently €57,211) or if single parent. Time on paid maternity leave (%): percentage of time on paid leave to take care of children since entry. Time on unpaid parental leave (%): percentage of time on unpaid leave to take care of children since entry. External campaign (d): 1 of there are external candidates in a particular selection campaign. Competition Index: fraction of potential candidates for promotion in the division that have a salary at the upper end of the salary band, defined as a salary of above 100 steps (up to a maximum of 169 steps). Female Competition (d): 1 if the number of potential female candidates in the division with a salary of above 100 steps in the salary band is more than the 30 percent of the total pool of potential candidates in the division.*

Table 2: Linear regression of logwages. Baseline

			Within Expert level
	(1)	(2)	(3)
Female	-0.036***	-0.011**	-0.015**
	(0.010)	(0.005)	(0.006)
Tenure within band	-0.003***	0.012***	0.013***
	(0.001)	(0.001)	(0.001)
Principal expert (band H)		0.266***	
		(0.006)	
Adviser (band I)		0.353***	
		(0.008)	
Observations	85282	85282	58354
R^2	0.510	0.866	0.643

*Notes: Linear regression, monthly data 2003-2017. Robust standard errors in parentheses, clustered by individual. Department, age and time dummies included. * p<0.1, ** p<0.05, *** p<0.01. Sample includes salary band F/G: Experts, H: Principal experts, and I: Advisers. Dependent variable: log of wages (measured as salary steps). Female (dummy): 1 if the employee is a woman. Tenure within band: years in the current salary band. Band H [I] (d): 1 if the employee is in salary band H [I]. Age dummies: 1 if the age of the employee is within a interval, namely (. , 35), [35 , 40), [40, 45), [45 , 50), [50 ,55), [55,.).*

Table 3: Linear regression of the probability of promotion from Expert level. Baseline

	(1)	(2)	(3)
Female	-0.0015***	-0.0019***	-0.0017***
	(0.0005)	(0.0005)	(0.0005)
Tenure within band	0.0005***	0.0004***	0.0004***
	(0.0001)	(0.0001)	(0.0001)
Children	0.0018***	0.0016***	0.0020***
	(0.0006)	(0.0006)	(0.0006)
Top performer		0.0041***	0.0040***
		(0.0005)	(0.0005)
Bonus		0.0031***	0.0031***
		(0.0008)	(0.0008)
Mentee		0.0037	0.0036
		(0.0027)	(0.0027)
Paid maternity leave			0.0012
			(0.0094)
Unpaid parental leave			-0.0102***
			(0.0030)
Observations	59163	59163	59163
R^2	0.003	0.004	0.005

*Notes: Linear regression, monthly data 2003-2017. Robust standard errors in parentheses, clustered by individual. Department, time and age dummies included. * p<0.1, ** p<0.05, *** p<0.01. Dependent variable: Promotion (dummy), takes value 1 if employee moves to a higher salary band. Female (d): 1 if the employee is a woman. Tenure within band: years in the current salary band. Top performer (d): 1 if employee's salary award is among the top 25% in her business area at least once in the last 2 years. Bonus (d): 1 if employee received cash bonuses in the last 2 years. Mentee (d): 1 if employee participated in the mentorship program in the last 2 years. Children (d): if the employee has dependent children. Paid maternity leave (%): percentage of time on paid leave to take care of children since entry. Unpaid parental leave (%): percentage of time on unpaid leave to take care of children since entry.*

Table 4: Linear regression of the probability of promotion from Expert level. Policy change

	Before 2011			From 2011 onwards		
	(1)	(2)	(3)	(4)	(5)	(6)
Female	-0.0025***	-0.0027***	-0.0025***	-0.0006	-0.0013*	-0.0009
	(0.0007)	(0.0007)	(0.0007)	(0.0008)	(0.0008)	(0.0008)
Tenure within band	0.0007***	0.0005***	0.0005***	0.0005***	0.0004***	0.0004***
	(0.0002)	(0.0002)	(0.0002)	(0.0001)	(0.0001)	(0.0001)
Children	0.0019**	0.0018**	0.0020**	0.0018**	0.0017**	0.0023**
	(0.0009)	(0.0008)	(0.0009)	(0.0009)	(0.0008)	(0.0009)
Top performer		0.0045***	0.0045***		0.0037***	0.0036***
		(0.0007)	(0.0007)		(0.0008)	(0.0008)
Bonus		0.0011	0.0011		0.0037***	0.0037***
		(0.0018)	(0.0018)		(0.0009)	(0.0009)
Mentee					0.0036	0.0035
					(0.0027)	(0.0027)
Paid maternity leave			-0.0052			0.0001
			(0.0146)			(0.0118)
Unpaid parental leave			-0.0080**			-0.0136***
			(0.0039)			(0.0047)
Observations	27396	27396	27396	31767	31767	31767
R^2	0.004	0.005	0.005	0.003	0.005	0.005

*Notes: Linear regression, monthly data 2003-2017. Robust standard errors in parentheses, clustered by individual. Department, time and age dummies included. * p<0.1, ** p<0.05, *** p<0.01. Dependent variable: Promotion (dummy), takes value 1 if employee moves to a higher salary band. Female (d): 1 if the employee is a woman. Tenure within band: years in the current salary band. Top performer (d): 1 if employee's salary award is among the top 25% in her business area at least once in the last 2 years. Bonus (d): 1 if employee received cash bonuses in the last 2 years. Mentee (d): 1 if employee participated in the mentorship program in the last 2 years. Children (d): if the employee has dependent children. Paid maternity leave (%): percentage of time on paid leave to take care of children since entry. Unpaid parental leave (%): percentage of time on unpaid leave to take care of children since entry.*

Table 5: Linear regression of the probability of promotion from Expert level. Differential effects

		Before 2011	From 2011 onwards
	(1)	(2)	(3)
Tenure within band	0.0010***	0.0014***	0.0010**
	(0.0002)	(0.0003)	(0.0004)
Female x Tenure within band	0.0000	-0.0006	0.0001
	(0.0002)	(0.0005)	(0.0005)
Top performer	0.0042***	0.0042***	0.0020
	(0.0010)	(0.0013)	(0.0015)
Female x Top performer	-0.0020	-0.0025	0.0003
	(0.0014)	(0.0021)	(0.0024)
Bonus	0.0044***	0.0048	0.0026*
	(0.0013)	(0.0031)	(0.0016)
Female x Bonus	-0.0007	-0.0074**	-0.0006
	(0.0018)	(0.0036)	(0.0025)
Mentee	-0.0012		0.0010
	(0.0041)		(0.0049)
Female x Mentee	0.0077		0.0038
	(0.0060)		(0.0070)
Children	0.0040*	0.0040	0.0025
	(0.0021)	(0.0033)	(0.0035)
Female x Children	-0.0059**	-0.0060	-0.0052
	(0.0028)	(0.0039)	(0.0051)
Paid maternity leave	0.0093	0.0211	-0.0019
	(0.0138)	(0.0187)	(0.0215)
Unpaid parental leave	-0.0180*	-0.0099	-0.0032
	(0.0107)	(0.0174)	(0.0151)
Female x Unpaid parental leave	0.0144	-0.0067	-0.0109
	(0.0124)	(0.0225)	(0.0197)
Observations	59163	27396	31767
R^2	0.007	0.008	0.007

*Notes: Linear regression, monthly data 2003-2017. Robust standard errors in parentheses, clustered by individual. Individual fixed effects, and department, time, and age dummies included. * p<0.1, ** p<0.05, *** p<0.01. Dependent variable: Promotion (dummy), takes value 1 if employee moves to a higher salary band. Female (d): 1 if the employee is a woman. Tenure within band: years in the current salary band. Top performer (d): 1 if employee's salary award is among the top 25% in her business area at least once in the last 2 years. Bonus (d): 1 if employee received cash bonuses in the last 2 years. Mentee (d): 1 if employee participated in the mentorship program in the last 2 years. Children (d): if the employee has dependent children. Paid maternity leave (%): percentage of time on paid leave to take care of children since entry. Unpaid parental leave (%): percentage of time on unpaid leave to take care of children since entry.*

Table 6: Linear regression of the probability of promotion. Campaigns

	(1)	(2)	(3)	(4)
Female	0.0004	0.0007	0.0005	0.0004
	(0.0007)	(0.0008)	(0.0007)	(0.0007)
Tenure within band	0.0001	0.0001	0.0001	0.0001
	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Top performer	0.0019***	0.0020***	0.0019***	0.0019***
	(0.0007)	(0.0007)	(0.0007)	(0.0007)
Bonus	0.0023***	0.0022***	0.0022***	0.0023***
	(0.0007)	(0.0007)	(0.0008)	(0.0007)
Mentee	0.0057**	0.0056**	0.0056**	0.0057**
	(0.0025)	(0.0025)	(0.0025)	(0.0025)
Paid maternity leave		-0.0076		
		(0.0116)		
Unpaid parental leave		-0.0016		
		(0.0054)		
Children			0.0003	
			(0.0008)	
Head of household			0.0006	
			(0.0008)	
Share of external candidates				-0.0109
				(0.0080)
Size of selection panel				-0.0002
				(0.0015)
Share of female panelists				-0.0001
				(0.0023)
Observations	23209	23208	23209	23209
R^2	0.003	0.003	0.003	0.003

*Notes: Linear regression, campaigns data 2012-2017. The sample includes potential candidates to recruitment campaigns. Robust standard errors in parentheses, clustered by campaign. Department and age dummies included. Campaign dummies also included except in (4). * p<0.1, ** p<0.05, *** p<0.01. Dependent variable: dummy variable that takes value 1 if the employee is offered the promotion after a recruitment campaign. Female (d): 1 if the employee is a woman. Tenure within band: years in the current salary band. Top performer (d): 1 if employee's salary award is among the top 25% in her business area at least once in the last 2 years. Bonus (d): 1 if employee received cash bonuses in the last 2 years. Mentee (d): 1 if employee participated in the mentorship program in the last 2 years. Paid maternity leave (%): percentage of time on paid leave to take care of children since entry. Unpaid parental leave (%): percentage of time on unpaid leave to take care of children since entry. Children (d): 1 if the employee has dependent children. Head of household (d): 1 if the spouse earns less than a certain level (currently €57,211) or if single parent. Share of external candidates: the ratio of external over total number of candidates to a particular selection campaign. Size of selection panel: log of the number of members of the campaign's selection panel. Share of female panelists: number of female panel members over total number of panel members.*

Table 7: Linear regression of the probability of applying for promotion. Campaigns. Baseline

	(1)	(2)	(3)	(4)
Female	-0.0175***	-0.0172***	-0.0170***	-0.0159***
	(0.0028)	(0.0031)	(0.0028)	(0.0028)
Tenure within band	0.0014***	0.0015***	0.0015***	0.0014***
	(0.0004)	(0.0004)	(0.0004)	(0.0004)
Top performer	0.0116***	0.0114***	0.0116***	0.0115***
	(0.0028)	(0.0028)	(0.0028)	(0.0028)
Bonus	0.0085***	0.0085***	0.0086***	0.0083***
	(0.0031)	(0.0031)	(0.0031)	(0.0030)
Mentee	0.0274***	0.0273***	0.0273***	0.0270***
	(0.0077)	(0.0077)	(0.0077)	(0.0077)
Paid maternity leave		0.0280		
		(0.0381)		
Unpaid parental leave		-0.0364**		
		(0.0158)		
Children			-0.0053*	-0.0070**
			(0.0028)	(0.0029)
Head of household				0.0052*
				(0.0030)
Observations	23209	23208	23209	23209
R^2	0.022	0.022	0.022	0.023

*Notes: Linear regression, campaigns data 2012-2017. The sample includes potential candidates to recruitment campaigns. Robust standard errors in parentheses, clustered by campaign. Campaign, department and age dummies included. * p<0.1, ** p<0.05, *** p<0.01. Dependent variable: dummy variable that takes value 1 if the employee applies for a promotion (thus participates in a recruitment campaign). Female (d): 1 if the employee is a woman. Tenure within band: years in the current salary band. Top performer (d): 1 if employee's salary award is among the top 25% in her business area at least once in the last 2 years. Bonus (d): 1 if employee received cash bonuses in the last 2 years. Mentee (d): 1 if employee participated in the mentorship program in the last 2 years. Paid maternity leave (%): percentage of time on paid leave to take care of children since entry. Unpaid parental leave (%): percentage of time on unpaid leave to take care of children since entry. Children (d): 1 if the employee has dependent children. Head of household (d): 1 if the spouse earns less than a certain level (currently €57,211) or if single parent.*

Table 8: Linear regression of the probability of applying for promotion. Campaigns. Differential effects

	(1)	(2)	(3)	(4)	(5)	(6)
Female	-0.0175***	-0.0199***	-0.0154***	-0.0121***	-0.0184***	-0.0088**
	(0.0028)	(0.0036)	(0.0031)	(0.0035)	(0.0027)	(0.0036)
Tenure within band	0.0014***	0.0014***	0.0014***	0.0016***	0.0014***	0.0016***
	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
Top performer	0.0116***	0.0115***	0.0116***	0.0117***	0.0114***	0.0115***
	(0.0028)	(0.0028)	(0.0028)	(0.0029)	(0.0028)	(0.0029)
Bonus	0.0085***	0.0087***	0.0085***	0.0080**	0.0084***	0.0077**
	(0.0031)	(0.0031)	(0.0031)	(0.0030)	(0.0031)	(0.0031)
Mentee	0.0274***	0.0270***	0.0273***	0.0279***	0.0278***	0.0285***
	(0.0077)	(0.0078)	(0.0077)	(0.0074)	(0.0077)	(0.0074)
Children		-0.0073**				
		(0.0033)				
Female x Children		0.0059				
		(0.0043)				
Female x External campaign			-0.0123*			-0.0125**
			(0.0064)			(0.0058)
Competition Index				-0.0067		-0.0036
				(0.0182)		(0.0185)
Female x Competition Index				-0.0286**		-0.0393***
				(0.0131)		(0.0130)
Female competition					-0.0171*	-0.0170*
					(0.0091)	(0.0092)
Female x Female competition					0.0315*	0.0416**
					(0.0178)	(0.0183)
Observations	23209	23209	23209	22955	23209	22955
R^2	0.022	0.023	0.022	0.023	0.023	0.023

*Notes: Linear regression, campaigns data 2012-2017. The sample includes potential candidates to recruitment campaigns. Robust standard errors in parentheses, clustered by campaign. Campaign, department and age dummies included. * p<0.1, ** p<0.05, *** p<0.01. Dependent variable: dummy variable that takes value 1 if the employee applies for a promotion (thus participates in a recruitment campaign). Female (d): 1 if the employee is a woman. Tenure within band: years in the current salary band. Top performer (d): 1 if employee's salary award is among the top 25% in her business area at least once in the last 2 years. Bonus (d): 1 if employee received cash bonuses in the last 2 years. Mentee (d): 1 if employee participated in the mentorship program in the last 2 years. Children (d): 1 if the employee has dependent children. External campaign (d): 1 if the campaign is open to external candidates. Competition Index: ratio of potential candidates in the same division that are high up in their salary band - higher than step 100 in a band of 169 steps. Female competition (d): takes value one if the ratio of potential female candidates in the same division that are high up in the salary band is larger than 0.3.*

Table 9: Linear regression of logwages. Wage gap following promotion

		Before 2011	From 2011 onwards
	(1)	(2)	(3)
Female	-0.017***	-0.016*	-0.016**
	(0.007)	(0.008)	(0.007)
Tenure within band	0.012***	0.019***	0.010***
	(0.001)	(0.001)	(0.001)
Principal expert (band H)	0.259***	0.255***	0.268***
	(0.006)	(0.008)	(0.007)
Adviser (band I)	0.350***	0.358***	0.352***
	(0.009)	(0.012)	(0.008)
Female x Principal expert (band H)	0.028***	0.030***	0.019*
	(0.009)	(0.011)	(0.010)
Female x Adviser (band I)	0.017	0.005	0.015
	(0.013)	(0.014)	(0.013)
Observations	85282	37014	48268
R^2	0.867	0.820	0.899

*Notes: Linear regression, monthly data 2003-2017. Robust standard errors in parentheses, clustered by individual. Department, age and time dummies included. * p<0.1, ** p<0.05, *** p<0.01.Sample includes salary band F/G: Experts, H: Principal experts, and I: Advisers. Dependent variable: log of wages (measured as salary steps). Female (dummy): 1 if the employee is a woman. Tenure within band: years in the current salary band. Band H [I] (d): 1 if the employee is in salary band H [I]. Age dummies: 1 if the age of the employee is within a interval, namely (. , 35), [35 , 40), [40, 45), [45 , 50), [50 ,55), [55,.).*

A Appendix tables and figures

Figure A.1: Share of female employees over time (2003-2017)

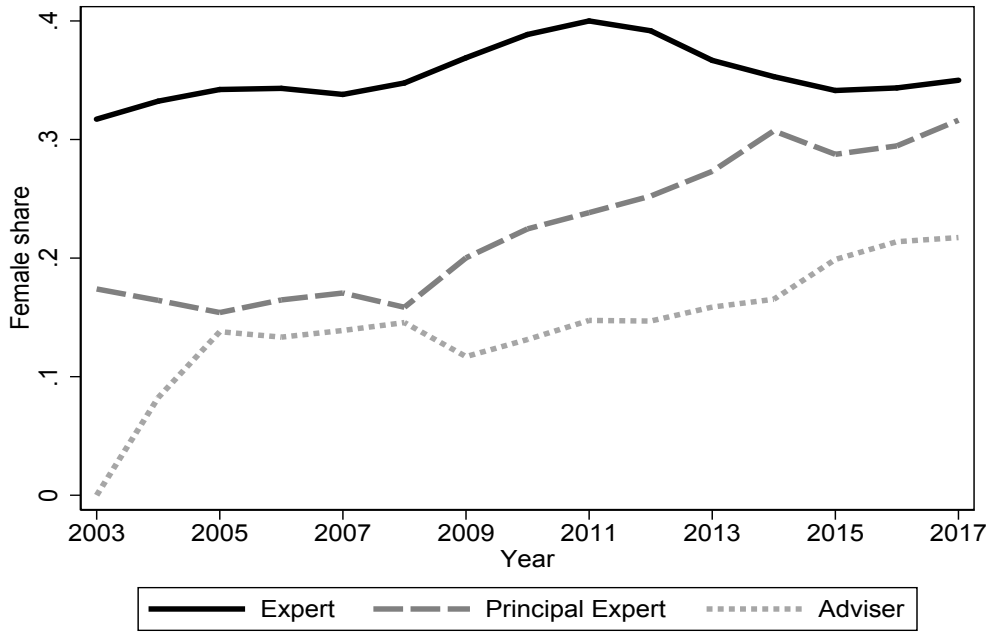


Table A.1: ECB salary structure in steps

	A	B	C	D	E/F	**F/G**	**H**	**I**
1	1	33	75	132	194	**263**	**419**	**454**
2	2	34	76	133	195	**264**	**420**	**455**
3	3	35	77	134	196	**265**	**421**	**456**
4	4	36	78	135	197	**266**	**422**	**457**
...								
55	55	87	129	186	248	**317**	**473**	**508**
56		88	130	187	249	**318**	**474**	**509**
...								
73		105	147	204	266	**335**	**491**	**526**
74			148	205	267	**336**	**492**	**527**
...								
89			163	220	282	**351**	**507**	**542**
90				221	283	**352**	**508**	**543**
91					284	**353**	**509**	**544**
92					285	**354**		
...								
98					291	**360**		
99					292	**361**		
101					294	**363**		
...								
167					360	**429**		
168						**430**		
169						**431**		

Notes: Equal steps denote equal salaries across bands. Each step is 0.25% higher than the previous one. Salaries are reviewed annually based on each employee's personal development and contribution to the performance of the ECB. According to that review, each employee is granted a number of steps. Figures in bold denote those included in the analysis.

Table A.2: Descriptive statistics at entry

		Total	[1] Male	[2] Female	Diff. [1]-[2]
2003-2017					
Workers	n, %	578	69.90%	30.10%	
Age	mean	33.35	33.65	32.64	1.01*
Salary steps	mean	308.85	309.98	306.22	3.77
Children (yes=1)	mean	0.22	0.25	0.14	0.11***
Entry before 2011					
Workers	n, %	262	66.03%	33.97%	
Age	mean	32.25	32.51	31.74	0.77
Salary steps	mean	317.40	320.01	312.34	7.67*
Children (yes=1)	mean	0.16	0.20	0.08	0.12**
Entry from 2011 onwards					
Workers	n, %	316	73.10%	26.90%	
Age	mean	34.26	34.50	33.59	0.91
Salary steps	mean	301.71	302.41	299.81	2.60
Children (yes=1)	mean	0.27	0.29	0.21	0.08

*Notes: * p<0.1, ** p<0.05, *** p<0.01. Entry defined as the first month at the ECB.*

Table A.3: Linear regression of logwages. Children

			Within Expert level	
	(1) OLS	(2) FE	(3) OLS	(4) FE
Female	-0.011**		-0.016**	
	(0.005)		(0.006)	
Tenure within band	0.012***	0.011***	0.013***	0.014***
	(0.001)	(0.001)	(0.001)	(0.005)
Principal expert (band H)	0.263***	0.242***		
	(0.006)	(0.010)		
Adviser (band I)	0.350***	0.329***		
	(0.008)	(0.014)		
Children	0.011**	0.011**	0.015***	0.013***
	(0.005)	(0.004)	(0.006)	(0.004)
Female x Children		-0.006		-0.010
		(0.007)		(0.006)
Observations	85282	85282	58354	58354
R^2	0.867	0.871	0.646	0.781

*Notes: Linear regression, monthly data 2003-2017. Robust standard errors in parentheses, clustered by individual. Department, age and time dummies included. Columns (2) and (4) also include individual fixed effects. * p<0.1, ** p<0.05, *** p<0.01. Sample includes salary band F/G: Experts, H: Principal experts, and I: Advisers. Dependent variable: log of wages (measured as salary steps). Female (dummy): 1 if the employee is a woman. Tenure within band: years in the current salary band. Band H [I] (d): 1 if the employee is in salary band H [I]. Age dummies: 1 if the age of the employee is within a interval, namely (. , 35), [35 , 40), [40, 45), [45 , 50), [50 ,55), [55,.)*

Table A.4: Gender promotion gap over time: Three-year rolling estimates

Period	Female (coefficient)	Observations
2003-05	-0.0040***	9,181
2004-06	-0.0033***	9,807
2006-08	-0.0021**	10,569
2007-09	-0.0023**	10,962
2008-10	-0.0019*	11,440
2009-11	-0.0007	11,758
2010-12	-0.0011	12,157
2011-13	-0.0008	12,734
2012-14	-0.0015	13,492
2013-15	-0.0019	13,907
2014-16	-0.0014	14,392
2015-17	-0.0015	14,356

*Notes: estimated coefficients of the dummy Female for same specification as Table 3, column (2), for three-year rolling samples. * p<0.1, ** p<0.05, *** p<0.01.*

Table A.5: Probability of promotion. Heckman selection model

	(1)	(2)	(3)
Received the offer:			
Female	0.0390	-0.0077	0.0481
	(0.0759)	(0.0960)	(0.0657)
Tenure within band	0.0040	0.0079	0.0031
	(0.0071)	(0.0086)	(0.0061)
Top performer	0.0634	0.0929	0.0564
	(0.0525)	(0.0648)	(0.0447)
Bonus	0.0594	0.0789*	0.0543*
	(0.0366)	(0.0461)	(0.0329)
Mentee	0.0778	0.1275	0.0662
	(0.0902)	(0.1088)	(0.0762)
Applying for promotion:			
Female	-0.2665***	-0.2537***	-0.2377***
	(0.0428)	(0.0383)	(0.0394)
Tenure within band	0.0231***	0.0228***	0.0223***
	(0.0049)	(0.0049)	(0.0049)
Top performer	0.1703***	0.1721***	0.1714***
	(0.0361)	(0.0361)	(0.0361)
Bonus	0.1156***	0.1149***	0.1106***
	(0.0358)	(0.0357)	(0.0358)
Mentee	0.2953***	0.2904***	0.2864***
	(0.0617)	(0.0616)	(0.0616)
Paid maternity leave	0.8214		
	(0.5546)		
Unpaid parental leave	-0.7712**		
	(0.3752)		
Children		-0.0603*	-0.0826**
		(0.0347)	(0.0370)
Head of household			0.0662*
			(0.0381)
λ	0.1153	0.3147	0.0667
	(0.3351)	(0.4123)	(0.2753)
Observations	23208	23209	23209

*Notes: Linear regression (Probability of promotion) and Probit regression (Applying for promotion), campaigns data 2012-2017. The sample includes potential candidates to recruitment campaigns. Standard errors in parentheses. Campaign, department and age dummies included. * p<0.1, ** p<0.05, *** p<0.01. Dependent variable (Received the offer): dummy that takes value 1 if the employee is offered the promotion. Dependent variable (Applying): dummy that takes value 1 if the employee applies for a promotion. Female (d): 1 if the employee is a woman. Tenure within band: years in the current salary band. Top performer (d): 1 if employee's salary award is among the top 25% in her business area at least once in the last 2 years. Bonus (d): 1 if employee received cash bonuses in the last 2 years. Mentee (d): 1 if employee participated in the mentorship program in the last 2 years. Paid maternity leave: percentage of time on paid leave to take care of children since entry. Unpaid parental leave: percentage of time on unpaid leave to take care of children since entry. Children (d): 1 if the employee has dependent children. Head of household (d): 1 if the spouse earns less than a certain level (currently €57,211) or if single parent.*

Table A.6: Linear regression of the probability of promotion, conditional on having applied for promotion. Campaigns

	(1)	(2)	(3)
Female	0.0805**	0.0630**	0.0606*
	(0.0310)	(0.0314)	(0.0322)
Tenure within band	0.0026	0.0018	0.0017
	(0.0026)	(0.0028)	(0.0027)
Top performer		0.0468**	0.0461**
		(0.0177)	(0.0177)
Bonus		0.0479**	0.0480**
		(0.0222)	(0.0222)
Mentee		0.0495	0.0494
		(0.0420)	(0.0421)
Children			0.0182
			(0.0219)
Observations	794	794	794
R^2	0.087	0.106	0.107

*Notes: Linear regression, campaigns data 2012-2017. The sample includes actual candidates who applied to recruitment campaigns. Robust standard errors in parentheses, clustered by campaign. Campaign, department and age dummies included. * p<0.1, ** p<0.05, *** p<0.01. Dependent variable: dummy that takes value 1 if the candidate is offered the promotion. Female (d): 1 if the employee is a woman. Tenure within band: years in the current salary band. Top performer (d): 1 if employee's salary award is among the top 25% in her business area at least once in the last 2 years. Bonus (d): 1 if employee received cash bonuses in the last 2 years. Mentee (d): 1 if employee participated in the mentorship program in the last 2 years. Children (d): 1 if the employee has dependent children.*