

Gender Promotion Gaps in Knowledge Work: The Role of Task Assignment in Teams*

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Abstract

Using rich data on personnel records, work assignments, and performance in a financial institution, we uncover the mechanisms leading to promotion gaps in knowledge teamwork. We find a substantial promotion gap for women in early career stages. Analyzing over a decade of personnel and investment project data reveals that assignments to project team leaderships (a “promotable” task) are crucial in explaining the gaps in promotions and affect long-term careers. We find causal evidence that male supervisors favor male bankers, while women benefit from female supervisors. A survey among employees indicates that women perceive to be disadvantaged in the assignments of tasks, but they do not differ in aspirations and demand for these roles.

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1 Introduction

Gender wage gaps persist in industrialized countries despite the convergence in men's and women's education (Altonji and Blank, 1999; Blau and Kahn, 2017). For lower-skilled workers, the gaps have closed, but in high-skilled work, large gaps persist. Most high-skilled work is conducted in firms with internal labor markets (Baker et al., 1994; Waldman, 2012; Huitfeldt et al., 2023; Osterman, 2024) in which individual rewards – such as higher pay, status, and better visibility – are linked to promotions (Lazear and Rosen, 1981; Waldman, 1984; Gibbons and Waldman, 1999; Benson et al., 2019; Cullen and Perez-Truglia, 2022; Pagano and Picariello, 2025; Deserranno et al., 2025). The wage gap is therefore strongly related to gaps in promotions (Blau and DeVaro, 2007; Bronson and Thoursie, 2020).

We investigate promotion gaps in a large international financial institution that provides a unique setting for research on the determinants of promotion gaps. Bankers in this institution are knowledge workers, and they collaborate in teams, as in most knowledge work. Most of bankers' incentives are given through promotions. We have detailed information about the investment projects teams work on, including team performance. We also have rich data from personnel records, including promotions.

We find that there is a substantial promotion gap for women in the early stages of their careers, and this gap is driven to a large extent by task assignments. Supervisors assign the promotable task within teams less often to women than to men. Male supervisors favor male employees. Women benefit from female supervisors, in particular, by receiving a workload that is less heavy on the non-promotable task. Our employee survey indicates that women perceive to be disadvantaged in task assignment, but do not differ in aspirations and demand for the promotable task. We replicate results from and nest our paper with a literature on internal labor markets and careers, gender in organizations, teamwork, and the role of managers for human resource development. Direct supervisors' task assignments to promotable tasks affect not only the (more short-term) promotion gap but also the long-term careers of men and women.

The international financial institution (referred to hereinafter as “the FI” or “the firm”) provided

us with unrestricted access spanning the years 2000 to 2018. Data include information on 10,000 investment projects and the 1,500+ knowledge workers involved in these projects and their respective careers. Managers and employees in HR, banking, and the staff association have helped us in understanding the organizational practices. In the FI, highly educated workers, half of them women, enter at a well-defined level (job band 5, for university-educated workers), and the main way to increase one's wage and status is to be promoted. Teams work on projects around the globe, screening and potentially suggesting them to a committee of senior managers who decide on the allocation of funds. We match individuals' roles in each project team, their promotion rates, and long-run career outcomes. We also know the match between individuals and supervisors (directors) who take staffing decisions.

The data have the unique feature that hard performance data are systematically tracked. Performance is realized on the team level and is an important input into promotion decisions.¹ Team performance is measured in the number of projects signed and funding amounts. Teams offer the advantage of combining workers' complementary skills and the problem-solving capacities to succeed,² but teamwork blurs individual performance signals in a joint signal (Itoh, 1991). Hence, any firm using teamwork must solve the "metering" problem first investigated by Alchian and Demsetz (1972): How to evaluate individual performance if only team output is observable? The problem that may arise is that decision makers attribute team success more to some individuals and less to others.

Many biases, conscious and unconscious, could systematically disadvantage women (Bagues et al., 2017; Sarsons, 2017; Sarsons et al., 2021; Del Carpio and Guadalupe, 2022; Ash et al., 2024; Benson et al., 2024; De Haas et al., 2024; Alan et al., 2025; Li and Liu, 2025) not only in the evaluation of performance but also in the assignment of tasks and roles within the team, which may make some people more promotable or visible than others. This is likely to be exacerbated because managerial attention is scarce (Dessein and Santos, 2021). Bloom et al. (2015) find that employees

¹Both Guadalupe (2024) and Englmaier et al. (2024) offer insights into the nature of knowledge work. We believe that having performance data in knowledge work will further expand our understanding of how work is done in these settings.

²Wuchty et al. (2007); Katzenbach and Smith (2015); Page (2017)

working from home were less visible in the office and promoted at lower rates. [Babcock et al. \(2017\)](#) and [Chu et al. \(2022\)](#) document that women hold more non-promotable tasks in academia and medicine, respectively.

We find a substantial gender promotion gap on the entry level (promotion from job band 5 to 6). Women are promoted at a 30% lower hazard than men, which translates into a year of additional waiting time in the raw data.³ This is not a child penalty as in [Kleven et al. \(2019\)](#) which would make effort more costly to women than to men ([Goldin, 2014](#)). At this early career stage, very few women have kids, and running the regressions without mothers does not change the picture.

To explore the organizational mechanisms that determine the gap, we open the black box of team production. Employees either have the role of a simple team member or team leader (an “operational leader”, OL). OL roles are rewarded much more likely with a promotion than ordinary team memberships. Becoming an OL does not require a high rank in the hierarchy, such that many people are, in principle, eligible for it. Women are assigned OL roles with a lower probability than men, and the role assignments are persistent.

Promotions are decided in a process in which the direct supervisor, usually a director, suggests a person for promotion but cannot decide on it alone. Rather, the case of each candidate is discussed and decided among peer directors. Role assignments in teams, however, are carried out by the directors on their own. We find evidence for different managerial styles in these assignments. Simple comparisons of individuals’ task assignments under different types of managers would be misleading.

We therefore adopt two types of strategies previously used by the literature to generate plausibly exogenous variation in the assignments of managers to bankers. The first research design studies how task assignment for male and female new-joiners differs by the gender of the first manager they work with in the firm. The strategy of [Hoffman and Tadelis \(2021\)](#) that we use reduces the concern that an assignment gap is driven by bilateral sorting between employees and directors. New-joiner women wait on average three to four months longer than men before they are assigned their first

³At levels further up, women at least have the same promotion rates (we will get back to this later).

operational leadership role. This relative waiting time differs significantly under different directors. Under the supervision of male directors, junior women wait around 9 months longer, while under the supervision of female directors there is no significant difference. Given the importance of role persistence in assignments, this suggests that junior women whose first supervisor is a man are likely to have little opportunity to gain visibility.

Our second research design leverages variation in junior bankers' workload from switching managers. This follows [Cullen and Perez-Truglia \(2023\)](#) and [Minni \(2023\)](#) and helps us to exploit quasi-random variation in the gender of a manager induced by rotations. We find that junior women who transition from a male to a female director receive more and larger assignments as operational leaders relative to junior men, compared with junior women who transition from a male to another male director. At the same time, junior women are assigned fewer time consuming and non-promotable team member roles under female directors.⁴

An extensive survey (first tested on another, unrelated financial firm with similar results) helps us to dig deeper into the mechanism. There are little gender differences in the workplace perceptions except that women feel disadvantaged in the assignments of interesting roles and tasks. They do, however, not differ in aspirations, self-evaluation, self-promotion, or the demand for leadership.

Because of the long-term nature of our data, we can explore whether women's careers are different from men's using, again, new-joiner analysis and managerial rotations. Junior men and women have similar careers when their first director is a woman, but women move up slower than men when the first director is a man. Switching from a male to a female manager early in one's career helps women. Five years after such a transition, the relative gain for junior women is 0.38 job bands, which rises to 0.58 job bands after eight years. Promotions are rare and the results imply that junior women secure around half a promotion more than junior men over a decade, which is an economically large effect.

⁴We believe it is beyond the scope of our study to pin down the precise cognitive or motivational cause of the directors' behavior, men and women, in assigning tasks. Given the culture of the firm, we would be reluctant to argue that biases are conscious. [Pikulina and Ferreira \(2024\)](#) introduce the concept of subtle discrimination which cannot objectively be identified as discrimination due to plausible deniability. [Flabbi et al. \(2019\)](#) suggest that female executives are better at evaluating the productivity of female workers. [Eyting \(2024\)](#) points to information being interpreted in line with motivated reasoning. All of these are in line with our findings.

The firm we study has made many efforts to ensure equal opportunities in the organization, but role assignment in a team is the directors' call. This may have many good reasons, in particular, using the information direct supervisors may be privy to, but it comes at the expense of distorting the career opportunities for women. We combine the insights from the literature on gender gaps (which gives little importance to teamwork) with the one on assigning tasks and teams (which makes little or no mention of gender), for instance [Ricart I Costa \(1988\)](#). To guide our empirical analysis, we combine the two in a simple model.

Our findings support the general perception that regulatory initiatives ([Bertrand et al., 2018](#); [Besley et al., 2017](#)), family support systems ([Lalive and Zweimüller, 2009](#); [Ekberg et al., 2013](#); [Adda et al., 2017](#)), and raising awareness about behavioral determinants of women versus men ([Niederle and Vesterlund, 2007](#); [Babcock and Laschevar, 2003](#)) do not suffice to level the career playing field. Organizational structures and processes may be most crucial in determining the situation of women in the labor market. This underlines the need for understanding processes in the depth of organizations, which we have attempted to do in this paper.

Our results speak to a fast-growing literature of gender in organizations. [Azmat and Ferrer \(2017\)](#) show that gender gaps in the promotion to partner in law firms are driven by performance differences. These are endogenously determined by career aspirations ([Azmat et al., 2025](#)) which react negatively to early career experiences, like demeaning comments or harassment ([Folke and Rickne, 2022](#); [Adams-Prassl et al., 2023](#)). [Hospido et al. \(2022\)](#) find that promotion differences at the European Central Bank are partly explained by a gender application gap. However, the application gap vanishes after the introduction of a policy change that encourages more women to apply for open positions. In a large retailer, [Benson et al. \(2024\)](#) show that women's potential is consistently underestimated; [Haegele \(2022b\)](#) finds that talent hoarding ([Friebel and Raith, 2022](#)) affects women disproportionately. [Huang et al. \(2023\)](#) emphasize the role of biases for promotions in the financial industry. [Ashraf et al. \(2025\)](#) quantify that changes in firm policies, such as wage contracts providing higher rewards for productivity, could close gender gaps and have massive productivity effects.

We also tie into a broader literature on the importance of middle managers or “Bosses” who, in the depth of the organization, take important human resource and leadership decisions affecting efficiency and equity alike. [Lazear et al. \(2015\)](#) estimate the fixed effect of middle managers’ styles on team productivity. [Hoffman and Tadelis \(2021\)](#) and [Friebel et al. \(2022\)](#) show that middle managers also matter for employee outcomes, such as attrition. Similarly, [Minni \(2023\)](#) and [Diaz et al. \(2025\)](#) analyze the role of middle managers for task assignment and training within firms, respectively.

[Bandiera et al. \(2007\)](#) and [He and le Maire \(2022\)](#) analyze the role of managers for inequality between workers. The results of [Ronchi and Smith \(2024\)](#) imply that shifts in managers’ gender attitudes matter for gender equality in earnings and employment. [Cullen and Perez-Truglia \(2023\)](#) explain around one third of the gender promotion gap in a commercial bank by social interactions of bosses and employees. [Yu \(2021\)](#) highlights the importance of the assignment to attractive court cases for lawyers and that women partners help women lawyers. In contrast, [Drechsel-Grau and Holub \(2024\)](#) find that manager gender does not affect gender differences in wage growth or promotion rates at a large European multinational high-tech manufacturer. [Alan et al. \(2025\)](#) show that women receive more support from female leaders than male leaders, which lowers attrition among women but has no effect on their promotion probability.

Our study is unique in looking at knowledge teams with hard performance and personnel data. Looking at different roles with rotation and measuring team performance in an exact way sets our study apart from previous literature. The key difference is not so much that women and men perform differently, but that women do not get the same opportunities as men in receiving assignments that are more important for team performance and hence more promotable. This is reminiscent of [Sarsons \(2017\)](#) on teamwork in research and [Sarsons et al. \(2021\)](#) who look at a market rather than an organization.

The firm’s internal labor market is remarkably similar to the one studied by [Baker et al. \(1994\)](#). Hence, we can connect the classical literature on internal labor markets in economics ([Baker et al., 1994](#); see [Waldman, 2012](#) for a survey; recent contributions underline the importance of internal

labor markets⁵) with a new literature on promotions (Benson et al., 2019; Cullen and Perez-Truglia, 2022; Pagano and Picariello, 2025; Deserranno et al., 2025) and augment both literatures in two ways. First, we zoom in on the observable career differences between men and women. Second, we take into account the specificities of team production, which opens up a new perspective on the determinants of promotions and promotion gaps.

We first provide information about the institutional setting and data. We then explain our conceptual framework and document promotion and assignment gaps in Section 3. Section 4 details our research designs to identify the role of directors in driving assignment gaps, while Section 5 discusses alternative mechanisms and presents our survey-based evidence. We analyze the internal labor market and long-term career outcomes in Section 6, before concluding in Section 7.

2 Setting

2.1 The Financial Institution: Structure and Projects

The FI we work with is active in multiple sectors and countries around the globe. In 2023, it invested a double-digit USD billion sum through hundreds of projects, mostly debt, and some equity. Figure A.1 in the Appendix depicts the organizational structure in a stylized way. For our purpose of analyzing the promotion gap and differential careers of women, the following pieces of information are crucial.⁶

Strategy planning and implementation are overseen by the organization's executive committee. They issue a *corporate scorecard* that sets out annual investment targets both in terms of number of realized projects and business volume for the entire FI and defines certain parameters, most importantly, development impact and financial profitability.

⁵Huitfeldt et al. (2023) and Osterman (2024) offer estimates that a large proportion of workers are covered by ILM practices despite increasing competitive pressure. Pastorino (2024) investigates the importance of human capital accumulation and leaning about employees' abilities, especially for sorting employees to jobs, within one firm.

⁶Appendix section A describes the FI we work with in more detail.

There are two main parts of the FI, banking and non-banking, roughly of equal size (see Figure A.2). We focus on banking, which is the revenue-generating part. There are several “directorates” (departments) each of which is headed by one director. Directorates are structured along sectors and regions of operations. Departmental scorecards are derived from the corporate scorecard. They set a minimum volume of signed investment per year, subject to reaching at least a threshold level of social impact (such as positive environmental outcomes) and financial sustainability (such as the ratio of non-performing loans) for each directorate. In this way, incentives of the directorates are aligned with strategy. Directors cannot hire bankers at will; positions are opened depending on revenues and cost-to-income ratio. Directorates employ on average 13 bankers on three different levels: analyst/associates in job band 5; principals in job band 6; associate directors in job band 7. They are managed and staffed on projects by the director (job band 8) (see Table A.1), supported by administrative staff. These projects receive support by lawyers, economists, risk officers and other specialists (e.g. environment) from the non-banking sector, to ensure that each project meets the FI’s financial criteria and business strategy.

2.2 Internal labor market

The bank has a well-organized internal labor market, which bankers usually enter at job band 5. Here, the educational requirement is a master’s degree. The firm then promotes these employees internally, but also hires externally on all ranks (as in Baker et al., 1994). Promotions are the main way for wage progression, with wages increasing by up to 20% from one band to another and allowing subsequent steeper wage progression, while annual performance-based bonuses are relatively small (up to 20% of a worker’s annual salary, but usually much less). For employees on bands 5 to 7, the main incentives are hence career concerns. Only at higher levels, bonuses become more substantial. Employees can apply for jobs in different directorates during their internal careers.

Each banker’s performance is evaluated annually mostly by employees and managers from higher bands. Promotions then occur in certain windows, typically in the first quarter of a year and decided upon based on the individual performance history and the annual reviews. In interviews,

we learned that the main relevant performance measures for bankers are (i) the number of projects signed and (ii) the size of these projects (funds invested). In our regressions, these will be important explanatory variables, in line with the design of departmental score cards (see above). How precisely performance maps into promotions is investigated in the regressions in Section 3.

2.3 Investment projects, teams, incentives

The relevant “unit of production” are investment projects that are developed by professional staff in the banking directorates. We have data on more than 10,000 banking projects, each of which is subject to intensive screening before being either signed or aborted. Each project is linked to a sector and a region. In the next section, we explain how we use the project data to calculate performance histories and analyze project assignments.

The screening of a deal, the development of its structure and negotiations (internally and externally) are carried out by a designated banking project team (hereafter simply “the project team”). Upon arrival of a project at a directorate, the relevant director assigns his or her employees to the project. The project team is led by an OL who is responsible for a project during its whole life cycle and usually works with at least one other banking “team member” (TM), often from the respective regional directorate, and a number of non-banking staff. The work of the OL comprises coordinating the project work and organizing communication within the team, with superiors, and with the client. Importantly, besides organizing the work flow of a project team, the OL is responsible with presenting the project to a committee of senior managers from different departments. On average, a team consists of 2.5 banking team members. This may include analysts/associates (band 5), principals (band 6), and associate directors (band 7) who all can either be the OL or TM. Figure A.4 in the Appendix provides more detailed information on the project team composition.

Directors’ main incentives are to sign a specific amount of business volume and a certain number of projects as outlined in the directorate scorecard. Bankers’ main task is to get projects signed; bigger projects are likely to be better for careers. From interviews with bankers, we further

learned that signing projects as the OL is crucial to move up the ranks in the FI. Clearly, being an OL provides visibility to a banker to representatives of higher echelons in the hierarchy who will provide performance evaluations in the promotion decisions. Section 3.1 formalizes this mechanism.

A project undergoes a lengthy development and approval process with three review stages (see Figure A.3). Around 60% of all projects are signed over our sample period. Table A.2 shows summary statistics on the project level: incoming projects have a volume of EUR 30 million on average and take around 140 days, or four to five months, to signing. Project risk is evaluated on a scale from 1 (equivalent to a triple-A rating) to 8 (equivalent to an impaired asset) in 20 increments; an average of 6 indicates that risk taking is acceptable, which needs to be compensated by high impact and financial returns. Around 20% of projects contain an equity component but are pure loans otherwise. Usually, ultimate success or failure of projects is only revealed several years after promotion decisions. Only 60% of signed projects in our sample are completed (repaid and impact monitored).

2.4 Data

We use data from the firm's (i) HR database and (ii) project monitoring tool. The HR database for bankers covers the years 2000-2018. For our analysis sample, we keep bankers who have been assigned at least one project in any role. From 2014 onward, we observe the director each banker is assigned to. From April 2007 to beginning of 2014, the data do not match directors and bankers, but we have information about cost centers and organizational units bankers are associated with. Together with the annual reports that we collected to infer the organizational charts and respective directors, we can manually reconstruct the director/banker match.⁷ For the time between 2000 and April 2007, it is impossible to match bankers and directors. Hence, we exclude these data from the analysis.⁸

⁷While we meticulously went through the entries, there may be additional noise in the 2007 to 2014 data, in particular for some directorates that share cost centers.

⁸We start with more than 130,000 worker-month observations for all employees in job bands 5-8 in the banking division over the 2000-2018 period. Limiting the sample to bankers in bands 5 to 7 who have worked on at least one project during this period removes around 30,000 worker-month observations. Because we can match each banker to his/her

The data from the project monitoring tool go back until 1991 and cover the universe of projects the FI considered. To ensure that we only investigate projects that were seriously pursued by the FI, we only keep those 10,155 projects in the data set that passed the FI’s initial review stage (called “concept review”). With these project data we can (i) calculate individual performance records spanning the period from 1991 to 2018, and (ii) run regressions on new assignments for the period from April 2007 to December 2018. We also know the role bankers have played in each project (OL or TM).

Table 1 shows summary statistics. Panel A shows the characteristics for men and women in each band. The average male banker in job band 5 is 31 years of age, while women in the same band are a year older on average. Men have an experience in the junior band of 34 months and women have over 39 months, respectively.⁹ These differences disappear and partly reverse on the more senior levels.

Panel B reports baseline promotion rates for the different job bands. The monthly hazard is the unconditional probability to be promoted in any given month. From band 5 to 6 it is roughly 1% for men and 0.8% for women. As in [Benson et al. \(2019\)](#) the within-sample rate restricts the sample to months in which at least one employee of the same seniority is promoted. This increases the before mentioned probability to 3.6% for men and 2.8% for women. These descriptive statistics of promotion rates for men and women hint towards a gender promotion gap at the junior level, while in higher bands, if anything, the reverse is true. One can also see the fact that promotion from band 6 to band 7 is a scarce event, making the job of Associate Director (band 7) a ceiling for many employees.

Panel C shows that across all bands, women have more project signings and larger projects. Importantly, in job band 5, men have more signings as OLs; that changes at higher levels of the hierarchy. Women tend to have slightly larger projects as OLs. These differences can also be seen

director only from April 2007 onward, we drop the preceding months, losing roughly another 30,000 worker-month observations along the way. Our final analysis sample therefore consists of 73,467 worker-month observations, including all bankers in job bands 5-7 who have worked on at least one project, and their directors.

⁹We control for these variables alongside other differences in HR characteristics between men and women in our regressions. Length of service includes any time in the FI prior to entering the junior job band in banking, e.g. employees entering in band 4 which is more common among women.

when looking at project assignments, regardless of whether the FI ends up signing them. In fact, while men and women have similar signing ratios in job band 5, women sign a greater share of their assignments in higher job bands.

Panel D reports the assignment hazards to OL and TM roles, revealing a difference between men and women in job band 5. The monthly hazard of OL assignment for junior men is 10.1%, while it is 8.8% for junior women, which again reverses in higher job bands. Women have a slightly higher hazard of TM assignment at all levels of seniority. We will explore to what extent performance in different roles matters for promotion and what drives assignment to the roles in the next sections.

Finally, panel E reports the number of observations by job band, with more than 30,000 person-month observations in job band 5 coming from 814 individual bankers. Women account for almost half of the observations, while on the higher levels, men have a larger share.

We present a career transition matrix of monthly hazards for men and women separately in Table A.3. This table provides an overview of gendered careers at our FI, summarized in the following results. First, the main port of entry for bankers is job band 5, accounting for 69% women and 67% of men. Second, a higher share of women than men enters the FI in bands 1-4, which include interns and support roles (19% vs. 11%). Third, promotions happen step-wise and demotions are rare. Fourth, women have lower exit rates to the non-banking part of the FI, but have similar exit rates from the firm to men. Finally, the table confirms our earlier observation that women have lower promotion rates at band 5, but higher promotion rates at higher bands.

3 Promotions and Assignments

Promotions are a formal, usually yearly process based on individual performance. The assignment of the OL role is, however, at the discretion of the respective director and much more informal. To explain how assignments to OL role may matter for promotions, we outline a model in which directors may have unconscious biases and how these may lead to biased promotion decisions even if the promotion rule itself is unbiased. We then carry out regressions to establish empirically the

significance of gaps at assignment and promotion stages.

3.1 Model

We adopt [Ortega \(2003\)](#) that studies managers' effort decisions in response to power and visibility in team production. We here abstract from effort and analyze the promotion effects of directors' biased priors about workers' abilities.

Setup The model has three stages $t \in \{0, 1, 2\}$, bankers, a director and a promotion committee that we assume to be unbiased because it consists of many directors. In $t = 0$, two bankers enter the firm; in $t = 1$, the director assigns the bankers to the two tasks in the project $j \in \{OL, TM\}$. Output is then realized, and beliefs about bankers' ability levels are updated by all players. Finally, in $t = 2$, the promotion committee promotes one banker or hires from the external market to fill the senior position.

Without loss of generality, assume that one banker from each group $i \in \{blue, red\}$ has entered the firm in stage $t = 0$. Bankers have an ability level η_i which is constant over the stages, unknown to all participants, and, importantly, including the bankers themselves. It is drawn from an i.i.d. normal distribution, $\eta_i \sim N(0, \sigma^2)$ with known variance. All participants have prior beliefs about these ability levels $\hat{\eta}_{i,t=0} \sim N(\eta_{i,0}, \sigma^2)$. For bankers and the promotion committee the prior distribution is independent of i , $\hat{\eta}_{i,t=0} \sim N(\eta_0, \sigma^2)$, i.e. they correctly believe both groups to have the same ability distribution.

Director's beliefs, however, may be biased. In particular, we here assume the director to believe the blue group to be more productive. We also assume that the director is not aware of this bias. He or she maximizes output i.e., the success of a project by assigning tasks to the two bankers. The project outcome is:

$$y_t = \varphi * \eta_i^{OL} + (1 - \varphi) * \eta_{-i}^{TM} + \varepsilon_t. \quad (1)$$

The project's success depends on the inputs of each task $j \in \{OL, TM\}$, which directly depend

on η_i^j , the ability of banker i who is assigned to task j . These abilities are not task-specific, i.e. banker i 's ability level is the same for both tasks, $\eta_i^{OL} = \eta_i^{TM} = \eta_i$. Parameter φ indicates the importance of a role for project success and in our case, visibility. In line with what we know from our firm, we assume that $\varphi \in (0.5, 1)$, hence OL's input to the project is more important and the OL is more visible as explained by [Ortega \(2003\)](#). Lastly, ε_t is a random productivity shock, with $\varepsilon_t \sim N(0, \sigma_\varepsilon^2)$.

Task assignment Directors prefer to staff the banker for which they believe ability to be higher on the OL project. Since $\varphi \in (0.5, 1)$, the following holds $\frac{\partial y}{\partial \eta_i^{OL}} > \frac{\partial y}{\partial \eta_i^{TM}}$. Hence, the impact of the supposedly more productive worker is more efficient in the OL position and will maximize expected profits. Because the director holds the belief that blue workers are, on average, more productive, the OL role is assigned to the blue worker.

Promotion In $t = 2$, the committee takes a decision after observing the output of the project and updating its beliefs about banker ability. The committee does not know about the director's potential bias (even the director is not aware of having a bias). The committee hence promotes the banker with the highest posterior ability, as long as it is positive. Otherwise, the firm hires from the external labor market. The committee is unbiased. Given the institutional setting, in particular the firm's concerns about diversity, there are good reasons for this assumption.

The updating of the committee's beliefs follows a standard Bayesian approach of weighting the signal received from the project $z_{i,t}^j$ and the prior with the corresponding variances ([DeGroot, 2004](#), p.167):

$$\hat{\eta}_{i,t=1}^{OL} = \frac{\varphi^2 \sigma^2}{\varphi^2 \sigma^2 + (1 - \varphi)^2 \sigma^2 + \sigma_\varepsilon^2} z_{i,1}^{OL} + \frac{(1 - \varphi)^2 \sigma^2 + \sigma_\varepsilon^2}{\varphi^2 \sigma^2 + (1 - \varphi)^2 \sigma^2 + \sigma_\varepsilon^2} \hat{\eta}_{i,t=0}. \quad (2)$$

Because the prior $\hat{\eta}_{i,t=0}$ for both groups $i \in \{blue, red\}$ is 0, the signal used to update for the OL is $z_{i,1}^{OL} = \frac{y_1}{\varphi}$ and $z_{i,1}^{TM} = \frac{y_1}{1-\varphi}$ for the banker in the TM role. An equation similar to (2) holds for the

TM.

Result Despite being unbiased, the committee will in a rational expectation equilibrium never promote the *red* banker. First, from the assignment of the director it follows that the *blue* banker becomes the OL and the *red* banker the TM. Second, the committee will promote the *blue/OL* banker if the project was successful ($y_1 \geq 0$).¹⁰ Third, if the project fails ($y_1 < 0$), the committee believes $\hat{\eta}_{i,t=1}^j < 0$ and hires on the external market with $\hat{\eta}_{i,t=1}^{external} = 0$.

To see this consider the following: According to the promotion rule, the bank promotes the OL if $\hat{\eta}_{i,t=1}^{OL} \geq \hat{\eta}_{i,t=1}^{TM}$. Because of $\hat{\eta}_{i,t=0}$, this is equal to the following inequality:

$$\frac{\varphi^2 \sigma^2}{\sigma^2 + \sigma_\varepsilon^2} \frac{y_1}{\varphi} \geq \frac{(1 - \varphi)^2 \sigma^2}{\sigma^2 + \sigma_\varepsilon^2} \frac{y_1}{1 - \varphi}. \quad (3)$$

Using the fact that all variances are positive, boils down to the committee promoting the OL if:

$$\varphi * y_1 \geq (1 - \varphi) * y_1. \quad (4)$$

Since $\varphi \in (0.5, 1)$, this is true. The committee rationally adjusts its posterior for the OL more than for the TM. The OL is then rewarded for good project performance and promoted if $y_1 \geq 0$ and punished for bad project performance. In this case, the firm does not promote from within because $\hat{\eta}_{i,t=1}^j < \hat{\eta}_{i,t=1}^{external} = 0$.

Discussion Our setting is very simple. It could be extended to a binary outcome (success vs. failure) or to multiple project assigning. It is mainly meant to bring two things home: (i) it posits that, given performance and assignment to OL roles, we should not see much gender bias in promotions, but (ii) there may be a bias in assigning men and women to OL roles. We could think of extending this framework to multiple periods, which would show that there will be path

¹⁰Ultimately, the outcomes we observe on the project level will be (0/1): signed/not signed or paid back/default. y_1 can here be seen as a latent variable which determines success if crossing a threshold, which the committee may observe contrary to the researchers. Alternatively, it may be seen as a different project or even portfolio characteristic such as funds dispersed or time to signing.

dependency: a bias against one type of workers can translate into future biases. We could also consider different strategies of directors. In particular, a director may not simply maximize output in a static sense, but dynamically, rather experiment with OL assignments in order to learn more about the ability of workers.

In what follows, we empirically investigate the following questions: (i) What is the promotion rule the FI employs? (ii) Is there a gap in promotions and how is it related to performance on projects? (iii) Is there a gender gap in assignments? (iv) Can one identify causally the role of potential director bias? We later also provide survey evidence that shows that women and men do not differ in their interest in leadership roles.

3.2 Promotion rule

We run descriptive regressions to establish the FI's promotion rule based on bankers' observed performance. This exercise helps to verify what we have learned from our informal interviews and take our simple model to the data.

Our empirical methodology for estimating the determinants of promotions and possible promotion gaps follows [Benson et al. \(2019\)](#), who run their promotion regression only in periods in which at least one employee is promoted. We adopt this strategy to account for the fact that promotions typically occur only when slots for promotion are open. Hence, we run the following regression on bankers i in directorates d who have not yet been promoted in their current job band. We do so only in year-month t in which at least one banker is promoted.

$$\text{Promoted}_{i,t} = \beta_1 \text{Performance}_{i,t} + \beta_2 X_{i,t} + \delta_d + \delta_t + \varepsilon_{i,t} \quad (5)$$

The dependent variable is an indicator variable showing whether a banker is promoted in the next month. We estimate Equation (5) for all bands and, then, separately for each job band j to allow for different promotion factors in $\text{Performance}_{i,t}$ to affect junior and senior bankers. Our baseline regression controls $X_{i,t}$ include family status variables (marital status, a parent dummy, number of months spent on parental leave, paid and unpaid separately, if any) - and entry characteristics (joining: in a job band < 5 , in a sector vs. a region directorate, in- vs. outside the banking

workforce). We create five bins each for age, length of service in the organization, and tenure on the job band, and include indicators for an employee's directorate and year. Standard errors are clustered on the individual level to account for serial correlation across time within individuals.

In estimating Equation (5), we use variation in performance across individual bankers who are in the same directorate, have similar backgrounds, and are comparable in terms of their time at the firm. In the model, the committee decides on promotion purely given the one-dimensional project outcome by updating. In reality this decision is more complex. Hence, it is important to understand what performance is in our setting. A number of measures could, in principle, be used in $Performance_{i,t}$. From interviews with bankers, we learned that signing projects is crucial to move up the ranks in the FI, in particular as an OL. The firm might also consider the ratio of signed to total projects assigned to a banker as a performance measure. We therefore construct these measures and include them in alternate specifications.

Table 2 shows our estimates of the FI's promotion rule for junior bankers. A banker's performance, as captured by completed project signings and their average amount, has a strong impact on promotion prospects. However, as anticipated from our interviews, column (2) confirms that project signings as an OL play a particularly important role in boosting a banker's promotion prospects. For instance, a junior banker who signs an additional project as OL can boost her/his promotion chances by 36% ($=0.0114/0.0317$) relative to the sample mean. In contrast, performance in the TM role has a minimal effect.

We next test the idea that bankers who lead successful projects are more likely to be promoted. To begin, we re-estimate Equation (5) but include total assignments for each banker regardless of project outcomes in column (3). Visibility gained through assignments as OL continues to matter. In column (4), we control for the ratio of these assignments that a banker successfully oversees through to signing. In line with the simple model above, bankers with a greater signing ratio as OL are more likely to be promoted, while signing ratio as TM has no effect.

These findings suggest that the promotion are based on performance signals. Where priors are updated based on bankers' performance as OL while discounting any signal received through TM

roles. Since the OL is seen as the face of a project and is responsible for presenting it to senior management, this role increases bankers' visibility and hence promotion chances. This is crucial for junior bankers for whom no other information is available early in their career. Our estimates of the promotion rule for bankers in job bands 6 and 7 (in Table B.1) show that performance as OL loses its explanatory power higher up the job ladder. Visibility matters the most for junior bankers.

3.3 Promotion gaps

We adjust our earlier specification to test for gender promotion gaps as follows:

$$\text{Promoted}_{i,t} = \beta_1 \text{Woman}_{i,t} + \beta_2 X_{i,t} + \delta_d + \delta_t + \delta_j + \varepsilon_{i,t}. \quad (6)$$

We estimate Equation (6) first on the pooled sample of all job bands, including fixed effects for each band (δ_j), and then separately for each band j to identify where promotion gaps might arise in one's career. For the determination of a gender gap, the coefficient of interest is β_1 .

Figure 1 presents our estimates of β_1 in the pooled sample in the left panel and for each job band separately in the remaining panels. The full regression results are reported in Table B.2. Being a woman reduces the promotion hazard in the pooled sample by 16% (0.44 percentage points at a baseline of 2.8% within sample, column 1). However, this gender promotion gap is detectable only for junior bankers in job band 5, which is the standard entry level of academically trained personnel. Being a junior woman reduces the promotion hazard by 36% (1.16 percentage points at a baseline of 3.2% within sample, column 4) or 34% in the full specification in column (6), while there is no discernible gender gap in job bands 6 or 7. If anything, women seem to be promoted at higher rates in job band 6. However, it must be noted that exit behavior differs between men and women, such that we believe job band 5 to be the relevant one to think of promotion gaps.

Table B.2 shows that only two observable characteristics matter for promotions from band 5 to 6: taking unpaid parental leave (over and above the standard paid parental leave in the FI), and entry in bands lower than 5, which are typically support or short-term positions. Both are concentrated among women, but hardly affect the size of the gender promotion gap in job band 5, although they render the gap in the pooled sample statistically insignificant.

We now focus on job band 5 where the gender gap opens. We adapt our specification to include bankers' performance as possible determinants of promotion. Following our estimates of the FI's promotion rule, these include the cumulative number of signed projects and the average amount signed (the latter in logs) for each banker at each point in time:

$$\text{Promoted}_{i,t} = \beta_1 \text{Woman}_{i,t} + \beta_2 \text{Performance}_{i,t} + \beta_3 X_{i,t} + \delta_d + \delta_t + \varepsilon_{i,t}. \quad (7)$$

Column (1) of Table 3 replicates our baseline, green specification for job band 5 from Figure 1. Column (2) shows estimates when we add our performance variables. As expected, performance has a strong effect on promotions, but it does not affect the gender promotion gap. In column (3), we break down each banker's performance by their role on the project. We find a noticeable difference in the effect of signings and average project amounts as OL vs. TM on promotions. Controlling for role-specific performance reduces the promotion gap by around 30% to 0.78 percentage points.

It is possible that junior women receive less credit for their contribution in a team environment (Sarsons et al., 2021; Hengel, 2022). In the last column, we interact signings as OL and average amount as OL with the woman indicator to investigate this. While women's promotions react less to average project amount managed as OL than men's, they react more to the number of signings, although the latter effect is statistically insignificant. We also find that the gender promotion gap is further reduced by a quarter to a statistically insignificant 0.47 percentage points. This estimate refers to a gap for bankers who have no signings as OL. When we calculate the marginal effect for the woman coefficient in column (4) evaluated at the means of our performance variables, we obtain an estimate of -0.0077 with a standard error of 0.0043 (p-value=0.08).

Taken together, these results indicate that performance on the job and differential performance evaluations can mostly explain the observed gender gap in junior bankers' promotions at the FI. In unreported results, we check that they are robust to alternative measures of performance (e.g. time spent on screening projects or team members supervised as OL), alternative sets of baseline controls (e.g. nationality or contract type), and alternative specifications for career disruption, internal networks, or fixed effects. They further hold for sub-samples of our data, for instance when we exclude all bankers with children. This highlights that the mechanisms we identify go beyond

a gender gap caused by a child penalty.

3.4 Assignment Gaps

We next test whether women are less likely than men to be assigned Operation Leader roles. For each project, we define the set of eligible bankers as those whose colleagues, from the same directorate, are staffed on the project. We then construct a dataset at the banker-project level, where each observation corresponds to an eligible banker i for project j , and record whether the banker is assigned to the project (as Operation Leader or Team Member) or not.

In our sample period, 5,552 projects are staffed. On average, 27.6 bankers are eligible per project (see appendix table B.3). In 30% of cases, the OL is in job band 5; we therefore restrict the sample to these projects when estimating assignment gaps for junior bankers and estimate the following specification:

$$\text{Assignment}_{i,j}^{OL/TM} = \beta_1 \text{Woman}_i + \beta_2 \text{Performance}_{i,j} + \beta_3 X_{i,j} + \delta_d + \delta_t + \delta_j + \varepsilon_{i,j}. \quad (8)$$

The dependent variable equals one if banker i is assigned to project j in the specified role (OL or TM). We estimate this regression separately for OL and TM assignments. Control variables and fixed effects follow equation (7), with the addition of project fixed effects (δ_j), which absorb project-specific shocks not captured by directorate and time fixed effects. The estimation sample includes all eligible job band 5 bankers and projects where the OL is in job band 5.

Table 4 reports the assignment gap for junior women in OL roles. Women are 1.5 percentage points less likely than men to be assigned as Operation Leader for projects. This estimate is stable across specifications and largely unaffected by the inclusion of performance controls. Prior experience as an OL and the size of past projects are strong predictors of OL assignment, while experience as a TM is less predictive, indicating persistence in OL roles. We find no evidence of differential returns to performance by gender, suggesting that women’s performance is neither discounted nor over-weighted relative to men’s. Relative to a baseline OL assignment probability of 7.7%, the estimated gap corresponds to approximately a 20% reduction. The gap remains when controlling for director fixed effects (column 5), suggesting that it is not driven by gendered

selection to directors. Interestingly, at higher job bands, women are more likely to be assigned OL roles and less likely to be assigned TM roles (Tables B.4 and B.5). However, at these levels, project track record is a weaker predictor of promotion.

In contrast, we find no gender gap for junior bankers in TM assignments (table B.5). However, TM roles also exhibit persistence: bankers with prior TM experience are more likely to be assigned as TMs again, while those with OL experience are more likely to be assigned as OLs. This persistence implies that initial assignments may have lasting effects on career trajectories within the FI. Figure 2 illustrates these dynamics by plotting time to first OL and TM assignments (irrespective of project outcomes) against time to first promotion for junior bankers. Time to first OL assignment is strongly correlated with time to first promotion (correlation coefficient above 0.61), whereas the corresponding correlation for TM assignments is substantially weaker (at 0.23 and statistically insignificant).

3.5 Gender-specific assignment and performance

Our quasi-experiments in the next section control for any reasons orthogonal to the directors' characteristics in question (in particular gender) in assessing their assignment decisions. Nonetheless, we here explore two prominent possible explanations for the assignment gap: gendered performance and selection into projects.

First, to exclude the possibility that our results are driven by differences in work quality or effort between men and women, we run a set of regressions at the project level. Table B.6 reveals that women are not worse OLs than men when it comes to getting deals signed; they also do not take longer to get projects from the first investment review stage to the final signing stage. Conditional on signing, projects led by women do not have differential non-performing rates. These results hold similarly regardless of whether we focus on projects led by women in all job bands or only on projects led by junior women.¹¹

¹¹These results also alleviate concerns of the FI "overhiring" women at entry. If few qualified women applied to the FI, which may aim at gender parity in hiring, then hired women would be on average of worse quality. This effect could be undone at later stages within the organization (Lehmann, 2013) by assigning fewer leadership positions. To

Second, if directors perceive women or men to be better suited for some projects than others, this may mechanically produce assignment gaps if the set of projects usually given to women is smaller than the one given to men in the role of OL. We run a set of regressions with different project characteristics as outcomes on a dummy of whether the OL is a woman, controlling for directorate and year FE. Figure B.1 shows that the gender of the OL does not correlate with the likelihood of a project with higher risk rating or project amounts. We do also not find evidence for the hypothesis that larger teams are usually led by male OLs. Women are more frequently assigned as OL if the project involves a repeat client and slightly less frequently if it has an equity components. This may be related to larger tenure of women or different specializations and is not indicative of the pool of eligible projects being smaller.

Lastly, we can exploit the fact that the FI is active in many countries. If women were assigned to projects as OL only in more female-friendly countries (to avoid conflicts with clients), this could produce a gender assignment gap. We proxy gender attitudes using the "Global Gender Gap Index" by the World Economic Forum¹² and find in Table B.7 that projects are not more likely to be held in countries with better gender attitudes if the OL is a woman in the sample of all bankers. Columns (3) and (4) restrict the sample to junior OLs. We find an insignificant correlation of a project being in a country 1.2 ranks higher in gender equality if the OL is a women, an insignificant effect of these countries having a 0.0026 points higher gender equality index, which is bound by 0 and 1 and increasing in gender equality. These effects are small and most likely do not influence the gender assignment gap.

investigate this, we obtained data on the FI's applicants shown in Appendix Table B.8. The firm faces sufficiently large applicant pools of men and women. On the junior level, there are on average 13.5 applications by women and 26 by men. In the presence of large applicant pools, hiring men and women equally often should not come at the expense of quality.

¹²We use the index for each year using the year of the project. The data are taken from this Wikipedia summary of the values from the individual reports: https://en.wikipedia.org/wiki/Global_Gender_Gap_Report, accessed on June 7 2024

4 Directors

We have shown that a gender promotion gap exists and junior bankers who hold the role of OL in successful and larger projects are promoted at a faster rate. While promotions are a formal process, assignments are informal at the sole discretion of directors, who seem to prefer assigning junior men to these roles, even though junior men and women perform similarly on the job. In this section, we analyze the role directors play in task assignment.

We are interested in three aspects of directors that previous literature has identified as potentially important in task assignment and careers: (i) gender, in particular managerial homophily ([Kurtulus and Tomaskovic-Devey, 2012](#); [Kunze and Miller, 2017](#); [Maida and Weber, 2022](#); [Fortin et al., 2022](#); [Cullen and Perez-Truglia, 2023](#); [Drechsel-Grau and Holub, 2024](#)); (ii) parenthood ([Washington, 2008](#); [Ronchi and Smith, 2024](#)); and (iii) “high-flyer” managers based on promotion speed ([Minni, 2023](#)).

Performing a simple comparison of bankers’ task assignments under different types of directors would be misleading due to evident concerns of endogeneity. Directors are instrumental both in the hiring of bankers and the allocation of tasks and roles. The assignment of directors and bankers is clearly not random. The ideal experiment to overcoming this type of endogeneity would involve randomly matching directors and bankers, for instance via frequent rotation of directors across directorates or teams of bankers. However, this is not what the FI does, and rotation in firms often has non-random elements. We therefore adopt two types of experiments used by earlier studies to exploit plausibly exogenous assignment of directors to bankers.

First, we carry out a new-joiner analysis of the waiting time a person has until becoming an OL for the first time. This follows [Hoffman and Tadelis \(2021\)](#) and reduces concerns about assignment bias. A new-joiner is unlikely to have substantial information about the director’s management style – and specifically the director’s propensity to assign OL vs. TM roles to men and women. Directors are unlikely to have accurate information about a new banker’s ability to lead projects or their productivity as a team member, especially if they were not involved closely in the hiring process. This approach therefore reduces concerns around the FI sorting junior bankers, and

specifically junior women, into teams and directors where waiting times for assignments can be longer than usual.

Second, we estimate event studies of bankers experiencing a change in their direct supervisor as in [Cullen and Perez-Truglia \(2023\)](#) and [Minni \(2023\)](#). There are many reasons why a director may be replaced by another: promotion, horizontal moves across location or job function, exit, illness, or death. In general, it is hardly imaginable that junior bankers would have a say in their director staying or leaving, or which new director would take over the directorate.

4.1 New-joiner analysis

We first examine how directors affect early career assignments using a new-joiner design that focuses on waiting times to first OL assignment which has significant impact on promotions and careers as discussed earlier.

Sample We focus on junior bankers who recently joined the FI. A new-joiner is defined as a banker in job band 5 who joined within the past six months. We observe 814 bankers in job band 5, of whom 554 are new-joiners. To ensure clean identification of director effects, we restrict the sample to new-joiners who remain with their initial director. This yields a sample of 253 bankers, of whom 108 receive a first OL assignment in our sample period.

Identification We estimate how waiting times to first assignment differ by gender and director characteristics using the following specification:

$$\text{Time to assignment}_i = \sum_{j \in J} \beta_j \text{Woman}_i \times D_i^j + \eta X_i + \delta_d + \delta_t + \gamma_i^D + \varepsilon_i. \quad (9)$$

The dependent variable is the number of months between entry and the first assignment (OL or TM). D_i^j captures director characteristics (e.g., gender, parenthood, or high-flyer status). We include directorate and year fixed effects, as well as director fixed effects, and cluster standard errors at the director level.

Identification relies on the assumption that, conditional on controls and fixed effects, the characteristics of a new-joiner's initial director are orthogonal to determinants of waiting time. This assumption is supported by the similarity of observable characteristics across male and female new-joiners (Table B.9). We further control for demographics and initial placement.

Effects on waiting times Table 5 shows that new-joiner women wait significantly longer than men for their first OL assignment. Descriptively, women wait insignificant 3.6 months longer (column 1), a gap that remains when including director fixed effects (3.9 months, column 2), indicating that sorting across directors does not drive the result. Column (3) shows substantial heterogeneity by director gender. Under male directors, women wait approximately 9 months longer than men for their first OL assignment. Under female directors, women wait 3-4 months less. Although, the latter estimate is not statistically significant, the difference between these two coefficients is $p=0.04$. This result suggests that gender gaps in early leadership opportunities are driven primarily by male directors, while female directors assign OL roles more equally. Figure 3 illustrates these patterns using Kaplan-Meier estimates that account for censoring. Under female directors, assignment probabilities for men and women evolve similarly. Under male directors, a clear gap emerges: after 15 months, the probability of having received an OL assignment exceeds 35% for men but remains below 20% for women. Differences in TM assignment timing are smaller but follow a similar pattern.

We next examine other director characteristics. Column (4) shows that women wait longer under directors with children (approximately 6 months) than under those without (3 months), although these estimates are imprecise and not statistically different from each other.¹³ We also test whether assignment patterns differ by managerial quality, measured by directors' own promotion speed (Minni, 2023). Here, we also find no evidence that high-flyer directors assign women to OL roles more quickly.

Appendix Table B.10 reports results for waiting times to first TM assignment. Women wait

¹³We do not know the gender of directors' children (as in Washington, 2008; Ronchi and Smith, 2024) but we can check whether directors with children behave in different ways than those without.

approximately 1.5 months longer than men, with significantly larger gaps under male directors. We also find significant waiting time gaps for women who join directors with kids and low-flyer directors at around 2 months. However, the differences between directors by parenthood and managerial quality are small and not statistically significant.

Our new-joiner analysis focuses on bankers who remain with their initial director. We now study director transitions, which provide complementary variation by examining changes in assignment outcomes following switches in supervision. Unlike the first assignment, which has important career implications, this approach captures ongoing assignment dynamics and exploits plausibly exogenous variation in directors, allowing us to leverage the time dimension of the data.

4.2 Director transitions

We exploit quasi-random variation in directors using rotation events, following [Cullen and Perez-Truglia \(2023\)](#) and [Minni \(2023\)](#). We focus on bankers in job band 5 who experience a change in their director and track outcomes around the first transition. Director rotations arise primarily from promotions, transfers, and exits, and are largely outside junior bankers' control.

Sample Our sample includes 362 bankers experiencing one or two transition events (45% women). We focus on the first transition and follow bankers over time. We exclude bankers who experience three or more transitions.¹⁴ Most transitions (69%) occur at the team level, where entire groups are reassigned to a new director, supporting the plausibility of exogenous variation.

Identification We estimate event studies comparing assignment trajectories before and after director transitions. There are four possible events in director gender: transitions from woman-to-woman (W2W), woman-to-man (W2M), man-to-man (M2M), and man-to-woman (M2W) directors. We estimate coefficients for each transition type and banker gender, capturing assignment dynamics relative to the month prior to the transition:

¹⁴These bankers have typically joined the FI on a two-year entry-level graduate program in which rotations occur every six months. There are also a few directorates that underwent several rounds of restructuring during the sample period.

$$\begin{aligned} \text{Assignments}_{i,t} = & \sum_{j \in J} \sum_{s \in S} \beta_{s,j}^W \times \text{Woman}_i \times D_{i,t+s}^j + \sum_{j \in J} \sum_{s \in S} \beta_{s,j}^M \times (1 - \text{Woman}_i) \times D_{i,t+s}^j \\ & + \alpha_i + \gamma_{i,t}^D + \delta_t^W + \delta_t^M + \eta X_{i,t} + \epsilon_{i,t}, \end{aligned} \quad (10)$$

where s indexes event time relative to the transition and j denotes transition types (M2M, M2W, W2M, W2W). This specification allows assignment dynamics to vary flexibly by event time, transition type, and gender, yielding separate coefficient paths for men and women across all transition types. In total, we estimate eight sets of event-time coefficients – four transition types for each gender.

Transitions W2W and M2M keep the director's gender constant and therefore serve as control transitions. We construct difference-in-differences comparisons by isolating changes in outcomes associated with a change in director gender relative to these same-gender transitions. Specifically, we compare M2W to M2M transitions ("gaining" a female director) and W2M to W2W transitions ("losing" a female director), differencing out changes related to director turnover more generally.

We then assess whether these changes differ by banker gender. If gaining a female director affected men and women similarly, it would not alter gender gaps in assignments. We therefore construct double-differences that compare the effects of gaining or losing a female director for women relative to men. To maximize statistical power, we report dual-double-difference estimates that combine variation from both gaining and losing a female director.

Effects on assignments The outcomes of interest are the cumulative number of OL assignments, their associated volume, and cumulative TM assignments. Recall that OL assignments and their scale are key determinants of promotion through increased visibility, while TM assignments capture supporting workload. Figure 4 presents dual-double-difference estimates for these three outcomes.

Panel (a) shows that the advantage to junior women from having a female director increases gradually, reaching 1.4 additional OL assignments eight quarters after the transition (p-value = 0.05). This is economically large relative to a sample mean of 2.2 OL assignments (a 64% increase). There

is no evidence of pre-trends. Panel (b) shows similar patterns for the volume of OL assignments. There is no pre-trend, while after the transition the effect becomes positive and persistent, reaching 0.85 log points after eight quarters (p-value = 0.14), although estimates are imprecise. Panel (c) shows that junior women experience an immediate reduction in TM assignments under a female director relative to men. This suggests a reallocation of work away from supporting roles and toward leadership roles. The more immediate response in TM assignments is consistent with their higher frequency relative to OL assignments.

Because promotions occur in fixed cycles, earlier access to OL assignments can translate into faster career progression. Director transitions therefore matter not only through overall assignment levels but also through their timing.¹⁵

5 Survey Evidence

We carried out two surveys to capture bankers' perceptions about job assignment and career progression. The first was a short pilot at a European commercial bank where Friebe and Stahl carried out *pro bono* work for the diversity council. We then conducted a longer online survey at the FI between July and August 2022 in cooperation with the staff association.¹⁶ Detailed figures, tables, and the questionnaire are presented and discussed in Appendix C.

All staff at the FI were invited to participate in the survey by e-mail. We received responses from 1,049 staff, out of which 473 are from the banking part. The response rate was 42%. We confirm in Section 5.2 that we can replicate the assignment gap in OL assignments in the sample of survey respondents.

¹⁵As discussed in Section 2, promotions occur annually, while director transitions occur throughout the year. Earlier OL assignments can therefore affect promotion timing.

¹⁶At the pilot firm, we only asked questions regarding the work environment. At the FI, we conducted the full survey.

5.1 Opinions, beliefs and behavior

Besides demographic and job-specific information, we specifically asked about (a) experiences in the work environment, (b) aspirations, (c) perceptions about OL assignment, (d) self-evaluation, and (e) self-promotion with a battery of questions.¹⁷ We summarize the main findings for each of these batteries in this section and present results from a simple regression of gender differences in Appendix C. To summarize our results: we do not find meaningful gender differences at our firm when it comes to “demand effects” that might be linked to gaps in promotion or visible task assignments.

Experiences in the work environment Table C.1 reveals that any notable differences between men and women relate to the following questions: “I was given subordinate tasks.” and “I was portrayed in a stereotypical way.”. Strikingly, women in banking, in contrast to women in non-banking, report being given subordinate or less interesting tasks than colleagues with comparable experience and ability more often than men. This effect is particularly strong for women in banking in job band 5 for whom we document the gender assignment and promotion gaps. There is, however, no evidence related to differential perceptions about bankers’ visibility with their direct supervisor. This is not surprising in project work as direct supervisors, who are not necessarily directors, and bankers hold team meetings and discuss project strategy frequently. Nevertheless, having subordinate tasks or fewer OL assignments leads to less visibility with other senior managers of the organization during the project approval process. Importantly, women do not report that they have the sense of putting in too little effort, withholding their opinion out of fear of being snubbed, or being given preference over others. However, women report being portrayed in a stereotypical way more frequently than their men colleagues. In sum, it seems unlikely that women’s experiences in

¹⁷There is evidence from lawyers pointing to differences in workplace experience and aspirations at early career stages as possible reasons behind the gender promotion gap (Azmat and Ferrer, 2017; Azmat et al., 2025). Different access to social networks as in Cullen and Perez-Truglia (2023) may lead to different perceptions and understandings about how assignment processes work. Additionally, experimental evidence from school-aged youth suggests that gender differences may also exist in exhibiting leadership in a real effort task in public (Alan et al., 2020). Haegele (2022a) and Hospido et al. (2022) find gender gaps in leadership and applications to promotions for junior women. Lastly, experimental evidence shows a gender gap in self-evaluation and self-promotion in male-typed tasks related to math and science (Exley and Kessler, 2022).

the workplace cause the promotion and assignment gaps in our organization.

In the pilot survey in another bank, we found a similar picture about these questions, but in addition, women more often held back expressing their opinion (Figure C.8 and Table C.8). We do not find evidence for this at our FI. Interestingly, the gender differences in the pilot survey are present among more senior and junior employees and even stronger for the subset of more senior bankers.

Aspirations Employees' aspirations, as measured by the importance of different career attributes, are very similar among men and women in banking (Figure C.3). However, there seems to be a small tendency for women to care less about pay progression, and more for training and career development. In the regressions, we find no differences in terms of work-life balance and the evaluation of status in high positions. Taken together, there is no evidence of differential evaluations of career attributes, which one would expect if women's aspirations were lower.

Perceptions about OL assignments Bankers who have held at least one OL position were also asked to rank various attributes according to their importance in the assignment to OL positions. The analysis in Table C.3 shows no noteworthy differences between men's and women's perceptions about what is important to be assigned an OL role. One exception is that junior women may seem to attach less value to leadership skills than men. Nonetheless, we think that our effects are not driven by differences in the understanding of the market for OL positions.

Self-evaluation Figures C.5 and C.6 show how people self-evaluate their performance in an OL role (if they have already had an OL role) or in a TM role. Little stands out here (except that men may think they are better in communicating with clients). Tables C.4 and C.5 reveal that men and women show no statistically significant gaps in their self-evaluations along all dimensions. This speaks against the idea that women in banking are less confident or unsure about their performance in projects, which may have led them to request OL positions less often than men do.

Self-promotion To check if women bankers are less “pushy” than their men colleagues in marketing themselves as OL towards their supervisors, Figure C.7 looks at whether women and men undertake different strategies to signal their interest in OL roles. We asked how actively and clearly bankers express interest in becoming an OL of an upcoming project in the FI in two scenarios: (i) as a single question for a project that they believe to be qualified for; and (ii) immediately after the self-evaluation as OL or TM as described in (d). The regressions in Table C.6 show no differences. The panels relate to the situations in which we asked for the intensity of signaling on a scale from 0 to 100. In panels A and B, the sample is restricted to staff who were assigned at least one project as OL in banking. Panel C reveals that the above results also hold for bankers who have so far only done TM projects. Panels B and C show the results for being asked after the self-evaluation. This allows to make the situation even more realistic while being able to check for consistency. All the panels show no meaningful differences. Similarly, restricting the sample to bankers in job band 5 (columns 4-6 in Table C.6) does not change this pattern.¹⁸

5.2 Assignment gap in the survey

We also asked people how often they had been assigned to OL roles. Table C.7 shows that the assignment gap replicates in the survey. Strikingly, the only two items that bear statistical significance in explaining variation in the assignment gap are the answers to the statements: “I was given subordinate or less interesting tasks compared to others of equal experience and ability” and “I held back expressing my opinion because I feared either not being listened to or receiving a dismissive response”. These results are in line with the evidence from administrative data that directors’ assignment behavior matters and make us confident that demand effects are not important for the assignment gap.

¹⁸This is in contrast to Haegele (2022a) who finds that women tend to apply less for leadership positions. Organizational culture may be an important factor to explain demand effects. Adams et al. (2021), for instance, find in Australian firms that workplace culture is heavily gendered. Women might then prefer not to expose themselves in leadership positions.

6 Gendered Careers

The previous sections show that gender gaps in assignments emerge early and depend on exposure to directors. We also show that project assignments are an important input to promotions early in the career. We now examine whether these differences translate into longer-run career outcomes. We focus on career progression within the firm and also investigate attrition. We first study how early exposure to a director of a given gender affects the long-term careers of new-joiners. We then assess how director transitions shape career trajectories over time.

6.1 Long-term effects of first directors

We begin by providing evidence on how early-career exposure to a director affects subsequent career progression. We focus on new-joiners who enter the firm in job band 5, for whom we can precisely identify the first director.¹⁹

$$y_{i,t} = \sum_{j \in J} \sum_{s \in S} \beta_{s,j}^W \times \text{Woman}_i \times D_i^j + \sum_{j \in J} \sum_{s \in S} \beta_{s,j}^M \times (1 - \text{Woman}_i) \times D_i^j \quad (11)$$

$$+ \alpha_i + \delta_d + \delta_t + \epsilon_{i,t},$$

where $s = 1, 2, \dots, 9$ indexes years since entry and $j \in M, W$ indicates whether the first director is male or female. The omitted category is $s = 0$, corresponding to the entry period. We include banker, directorate, and time fixed effects. The outcome, $y_{i,t}$, is the bankers job band. The coefficients $\beta_{s,j}^W$ and $\beta_{s,j}^M$ capture career progression relative to entry for women and men, respectively, depending on the gender of their first director.

We compare career progression of women and men conditional on the gender of the first director. Specifically, we examine $\beta_{s,W}^W - \beta_{s,W}^M$ and $\beta_{s,M}^W - \beta_{s,M}^M$, which measure gender gaps in career progression under female and male first directors, respectively. Standard errors are clustered at the banker and director levels.

¹⁹This is the same set of 554 new-joiners used in Section 4.1.

Figure 5 shows these estimates. Panel (a) shows that there are no meaningful differences in the relative job band growth of junior men and women when their first director is female. In contrast, panel (b) shows that women experience significantly slower career progression when their first director is male. The gap emerges gradually and becomes economically large over time: five years after entry, women are 0.12 job bands behind men (p-value = 0.08), increasing to 0.37 job bands after nine years (p-value = 0.01). These patterns mirror our earlier findings on assignments: delayed access to OL roles under male directors translates into persistent career gaps.

We have also investigated whether similar patterns can be found for attrition. A priori, it is unclear whether attrition feature similar patterns. Attrition can have many causes and may take many different forms (exit from the labor market, a move to a different firm, which could be associated with a promotion or not). Empirically, panels (c) and (d) of figure 5 show no systematic differences in attrition by gender or first director type.

6.2 Long-term effects of director transitions

We next examine whether director transitions have persistent effects on career outcomes. We track junior bankers for up to a decade following their first director transition and estimate the following event study:²⁰

$$y_{i,t} = \sum_{j \in J} \sum_{s \in S} \beta_{s,j}^W \times \text{Woman}_i \times D_{i,t+s}^j + \sum_{j \in J} \sum_{s \in S} \beta_{s,j}^M \times (1 - \text{Woman}_i) \times D_{i,t+s}^j + \alpha_i + \delta_t + \epsilon_{i,t}, \quad (12)$$

where $s = 1, 2, \dots, 9$ indexes years since the director transition and $j \in W2M, W2W, M2W, M2M$ denotes transition types. The omitted category is $s = 0$, corresponding to the quarter immediately before the transition. The outcome variable, $y_{i,t}$, is either banker i 's job band while they remain in the banking division or their exit from this sample. We track bankers from their current position in

²⁰As before, we exclude bankers who experience three or more transitions.

band 5 up to band 7, or until they leave the sample. Because all bankers are in job band 5 prior to the transition, we do not estimate pre-transition coefficients.

Given our sample begins in April 2007, we can track individual careers for around a decade at most. However, there are few bankers who experience an event early in the sample *and* stay with the FI throughout. We therefore group observations for bankers we can track for more than a decade together with $s = 9$ observations. We include banker and time fixed effects ($\alpha_i + \delta_t$) and cluster standard errors at both banker and director levels.

Figure 6 presents the dual-double-differences estimates of long-term career outcomes for junior bankers experiencing director transition events. As before, these estimates capture the differential effect on women relative to men of transitioning to a female rather than a male director, net of same-gender director transitions. The effects emerge gradually. Starting around four to five years after the transition, women begin to experience faster career progression relative to men when exposed to female directors rather than male directors. Eight years after a transition, women are 0.47 job bands ahead (p-value = 0.12), increasing to 0.57 job bands at the longest horizon (p-value = 0.07). These magnitudes are economically meaningful: given that junior bankers can receive at most two promotions over this period, the estimates imply that women gain roughly half an additional promotion relative to men over a decade – or rather lose out on them if managed by male directors.

These results indicate that the effects of managerial assignment decisions accumulate over time. Exposure to female directors shifts women onto persistently faster career trajectories, consistent with earlier evidence on assignment patterns.

For completeness, we also examine attrition following director transitions. Consistent with the new-joiner analysis, we find no systematic differences in exit patterns by gender or transition type in panel (b).

7 Conclusion

Knowledge work is team work. We have here looked at investment projects as a good example of such teamwork. Members in the team may work more or less hard for project success and may be talented to a different extent, but teamwork blurs individual performance evaluation. Different roles in a team give different visibility though. Because a team leader is more important for the outcome of a project than ordinary team members, rational inference leads to attributing more of the outcome to the person who plays that role. Team leaders are, furthermore, the ones who present projects to the committees who decide about the future of a project; here, whether it can get signed or not. It is likely that this type of visibility is an important input into a person's career. Indeed, it is – not only do team leaders of successful projects get more credit (in terms of promotions) than ordinary team members, even team leaders of unsuccessful projects tend to make better careers than normal team members with successful projects.

We find that women at early career stages need much longer to be promoted, but this effect is almost entirely driven by different performance records, and the fact that women get fewer assignments to team leadership than men. Causal analyses shed light on the role of supervisors' gender. Women wait longer to get the first team leader assignment if their first supervisor is a man. Female managers affect junior women's careers by giving them more opportunities to be visible. They also provide a better workload balance by reducing women junior bankers' involvement in non-promotable tasks. Gaining a female director benefits junior women primarily by reducing their workload as TM and increasing, even if temporarily, their visibility by assigning them more prestigious projects. Losing a female director hurts junior women by taking away their opportunity to lead projects both in terms of number and volume of assignments, and by increasing their workload as TM temporarily.

The firm we have worked with does much to assure equal opportunity and enjoys an excellent reputation. Our analysis, though, highlights that in the depth of organizations, many forces are at work that result in a less-than-level playing field. Descriptive statistics seem to show that in subsequent career steps, women make much better careers. However, causal analysis shows path

dependency with women who experienced a change from a woman supervisor to a man reaching less steep careers.

What we find about the assignment practice of male directors could be called homophily, but it is hard to tell whether this is owing to taste, implicit bias, or rational behavior. In particular, directors may give men better assignments because they must anticipate that dissatisfied men are more likely to leave. What we can exclude by our deep surveys is that women are not willing to play the role of team leader. We also find it noteworthy that the disadvantageous treatment occurs well before motherhood.

References

- Adams, R. B., Akyol, A. C., and Grosjean, P. A. (2021). Corporate gender culture. *SSRN 3880650*.
- Adams-Prassl, A., Huttunen, K., Nix, E., and Zhang, N. (2023). Violence against women at work. *The Quarterly Journal of Economics*, 139(2):937–991.
- Adda, J., Dustmann, C., and Stevens, K. (2017). The career costs of children. *Journal of Political Economy*, 125(2):293–337.
- Alan, S., Corekcioglu, G., Kaba, M., and Sutter, M. (2025). Female leadership and workplace climate. *Management Science*, forthcoming.
- Alan, S., Ertac, S., Kubilay, E., and Loranth, G. (2020). Understanding gender differences in leadership. *The Economic Journal*, 130(626):263–289.
- Alchian, A. A. and Demsetz, H. (1972). Production, information costs, and economic organization. *The American Economic Review*, 62(5):777–795.
- Altonji, J. and Blank, R. (1999). Race and gender in the labor market. In Ashenfelter, O. and Card, D., editors, *Handbook of Labor Economics*, volume 3, Part C, chapter 48, pages 3143–3259. Elsevier, 1 edition.
- Ash, E., Chen, D. L., and Ornaghi, A. (2024). Gender attitudes in the judiciary: Evidence from us circuit courts. *American Economic Journal: Applied Economics*, 16(1):314–50.
- Ashraf, N., Bandiera, O., Minni, V., and Quintas-Martinez, V. (2025). Gender gaps across the spectrum of development: Local talent and firm productivity.
- Azmat, G., Cuñat, V., and Henry, E. (2025). Gender promotion gaps and career aspirations. *Management Science*, 71(3):2127–2141.
- Azmat, G. and Ferrer, R. (2017). Gender gaps in performance: Evidence from young lawyers. *Journal of Political Economy*, 125(5):1306–1355.
- Babcock, L. and Laschevar, S. (2003). *Women Don't Ask: Negotiation and the Gender Divide*. Princeton University Press, stu - student edition edition.
- Babcock, L., Recalde, M. P., Vesterlund, L., and Weingart, L. (2017). Gender differences in accepting and receiving requests for tasks with low promotability. *American Economic Review*, 107(3):714–747.
- Bagues, M., Sylos-Labini, M., and Zinovyeva, N. (2017). Does the gender composition of scientific committees matter? *American Economic Review*, 107(4):1207–38.
- Baker, G., Gibbs, M., and Holmstrom, B. (1994). The internal economics of the firm: Evidence from personnel data. *The Quarterly Journal of Economics*, 109(4):881–919.

- Bandiera, O., Barankay, I., and Rasul, I. (2007). Incentives for managers and inequality among workers: Evidence from a firm-level experiment. *The Quarterly Journal of Economics*, 122(2):729–773.
- Benson, A., Li, D., and Shue, K. (2019). Promotions and the peter principle. *The Quarterly Journal of Economics*, 134(4):2085–2134.
- Benson, A., Li, D., and Shue, K. (2024). “Potential” and the gender promotion gap.
- Bertrand, M., Black, S. E., Jensen, S., and Lleras-Muney, A. (2018). Breaking the glass ceiling? The effect of board quotas on female labour market outcomes in norway. *The Review of Economic Studies*, 86(1):191–239.
- Besley, T., Folke, O., Persson, T., and Rickne, J. (2017). Gender quotas and the crisis of the mediocre man: Theory and evidence from sweden. *American Economic Review*, 107(8):2204–42.
- Blau, F. D. and DeVaro, J. (2007). New evidence on gender differences in promotion rates: An empirical analysis of a sample of new hires. *Industrial Relations: A Journal of Economy and Society*, 46(3):511–550.
- Blau, F. D. and Kahn, L. M. (2017). The gender wage gap: Extent, trends, and explanations. *Journal of Economic Literature*, 55(3):789–865.
- Bloom, N., Liang, J., Roberts, J., and Ying, Z. J. (2015). Does working from home work? Evidence from a chinese experiment. *The Quarterly Journal of Economics*, 130(1):165–218.
- Bronson, M. A. and Thoursie, P. S. (2020). The wage growth and within-firm mobility of men and women: New evidence and theory.
- Chu, B., Handel, B., Kolstad, J., and Malmendier, U. (2022). Gender differences in non-promotable tasks: The case of clinical note-taking.
- Cullen, Z. and Perez-Truglia, R. (2022). How much does your boss make? The effects of salary comparisons. *Journal of Political Economy*, 130(3):766–822.
- Cullen, Z. and Perez-Truglia, R. (2023). The old boys’ club: Schmoozing and the gender gap. *American Economic Review*, 113(7):1703–1740.
- De Haas, R., Baranov, V., Matavelli, I., and Grosjean, P. (2024). Masculinity around the world. CEPR Discussion Paper 19493, CEPR.
- DeGroot, M. H. (2004). *Optimal Statistical Decisions*, volume 82. John Wiley & Sons.
- Del Carpio, L. and Guadalupe, M. (2022). More women in tech? Evidence from a field experiment addressing social identity. *Management Science*, 68(5):3196–3218.
- Deserranno, E., Kastrau, P., and León-Ciliotta, G. (2025). Promotions and productivity: The role of meritocracy and pay progression in the public sector. *American Economic Review: Insights*, 7(1):71–89.

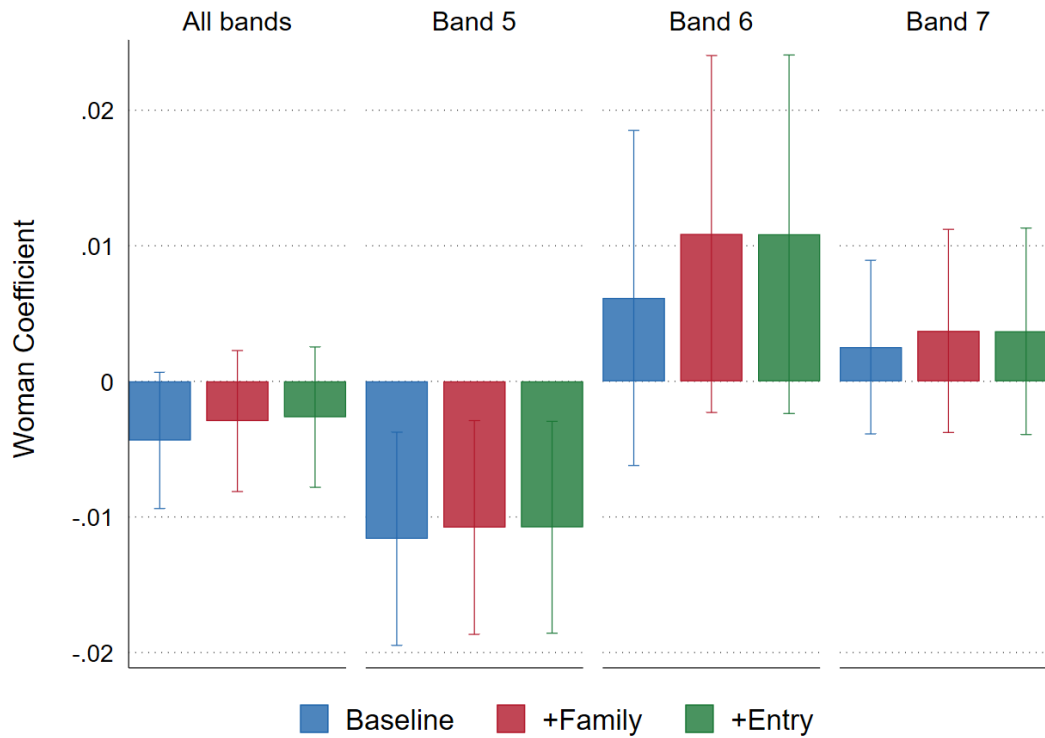
- Dessein, W. and Santos, T. (2021). Managerial style and attention. *American Economic Journal: Microeconomics*, 13(3):372–403.
- Diaz, B. S., Nazaret, A. N., Ramirez, J., Sadun, R., and Tamayo, J. A. (2025). Training within firms. Technical report, National Bureau of Economic Research.
- Drechsel-Grau, M. and Holub, F. (2024). Are male bosses bad for women’s careers? Evidence from a multinational corporation.
- Ekberg, J., Eriksson, R., and Friebel, G. (2013). Parental leave - a policy evaluation of the swedish "daddy-month" reform. *Journal of Public Economics*, 97:131–143.
- Englmaier, F., Grimm, S., Grothe, D., Schindler, D., and Schudy, S. (2024). The effect of incentives in nonroutine analytical team tasks. *Journal of Political Economy*, 132(8):2695–2747.
- Exley, C. L. and Kessler, J. B. (2022). The gender gap in self-promotion. *The Quarterly Journal of Economics*, 137(3):1345–1381.
- Eyting, M. (2024). Why do we discriminate? The role of motivated reasoning.
- Flabbi, L., Macis, M., Moro, A., and Schivardi, F. (2019). Do female executives make a difference? The impact of female leadership on gender gaps and firm performance. *The Economic Journal*, 129(622):2390–2423.
- Folke, O. and Rickne, J. (2022). Sexual harassment and gender inequality in the labor market. *The Quarterly Journal of Economics*, 137(4):2163–2212.
- Fortin, N. M., Markevych, M., and Rehavi, M. (2022). Closing the gender pay gap in the US federal service: The role of new managers.
- Friebel, G., Heinz, M., and Zubanov, N. (2022). Middle managers, personnel turnover, and performance: A long-term field experiment in a retail chain. *Management Science*, 68(1):211–229.
- Friebel, G. and Raith, M. (2022). Talent management: The role of bosses. *Available at SSRN 4162631*.
- Gibbons, R. and Waldman, M. (1999). Chapter 36 careers in organizations: Theory and evidence. volume 3 of *Handbook of Labor Economics*, pages 2373–2437. Elsevier.
- Goldin, C. (2014). A grand gender convergence: Its last chapter. *American Economic Review*, 104(4):1091–1119.
- Guadalupe, M. (2024). Clarity, communication and trust in teams: Evidence from an agile organization. Insead Working Paper 2024/60/EPS.
- Haeghele, I. (2022a). The broken rung: Gender and the leadership gap.
- Haeghele, I. (2022b). Talent hoarding in organizations.

- He, A. X. and le Maire, D. (2022). Managing inequality: Manager-specific wage premiums and selection in the managerial labor market. *Available at SSRN 3481262*.
- Hengel, E. (2022). Publishing while female: Are women held to higher standards? Evidence from peer review. *The Economic Journal*, 132(648):2951–2991.
- Hoffman, M. and Tadelis, S. (2021). People management skills, employee attrition, and manager rewards: An empirical analysis. *Journal of Political Economy*, 129(1):243–285.
- Hospido, L., Laeven, L., and Lamo, A. (2022). The gender promotion gap: Evidence from central banking. *The Review of Economics and Statistics*, 104(5):981–996.
- Huang, R., Mayer, E. J., and Miller, D. P. (2023). Gender bias in promotions: Evidence from financial institutions. *The Review of Financial Studies*, 37(5):1685–1728.
- Huitfeldt, I., Kostøl, A. R., Nimczik, J., and Weber, A. (2023). Internal labor markets: A worker flow approach. *Journal of Econometrics*, 233(2):661–688.
- Itoh, H. (1991). Incentives to help in multi-agent situations. *Econometrica*, 59(3):611–636.
- Katzenbach, J. R. and Smith, D. K. (2015). *The Wisdom of Teams: Creating the High-Performance Organization*. Harvard Business Review Press.
- Kleven, H., Landais, C., Posch, J., Steinhauer, A., and Zweimüller, J. (2019). Child penalties across countries: Evidence and explanations. *AEA Papers and Proceedings*, 109:122–26.
- Kunze, A. and Miller, A. R. (2017). Women helping women? Evidence from private sector data on workplace hierarchies. *The Review of Economics and Statistics*, 99(5):769–775.
- Kurtulus, F. A. and Tomaskovic-Devey, D. (2012). Do female top managers help women to advance? A panel study using eeo-1 records. *The Annals of the American Academy of Political and Social Science*, 639(1):173–197.
- Lalive, R. and Zweimüller, J. (2009). How does parental leave affect fertility and return to work? Evidence from two natural experiments. *The Quarterly Journal of Economics*, 124(3):1363–1402.
- Lazear, E., Shaw, K. L., and Stanton, C. T. (2015). The value of bosses. *Journal of Labor Economics*, 33(4):823 – 861.
- Lazear, E. P. and Rosen, S. (1981). Rank-order tournaments as optimum labor contracts. *Journal of Political Economy*, 89(5):841–864.
- Lehmann, J.-Y. K. (2013). Job assignment and promotion under statistical discrimination: Evidence from the early careers of lawyers.
- Li, Z. and Liu, S. (2025). Gender difference in innovation recognition: A textual analysis approach. *Journal of Labor Economics*, published online.

- Maida, A. and Weber, A. (2022). Female leadership and gender gap within firms: Evidence from an Italian board reform. *ILR Review*, 75(2):488–515.
- Minni, V. (2023). Making the invisible hand visible: Managers and the allocation of workers to jobs. Technical report, Centre for Economic Performance, LSE.
- Niederle, M. and Vesterlund, L. (2007). Do women shy away from competition? Do men compete too much? *The Quarterly Journal of Economics*, 122(3):1067–1101.
- Ortega, J. (2003). Power in the firm and managerial career concerns. *Journal of Economics & Management Strategy*, 12(1):1–29.
- Osterman, P. (2024). Reconsidering occupational internal labor markets: Incidence and consequences. *ILR Review*, Advance online publication, doi:10.1177/00197939241242089.
- Pagano, M. and Picariello, L. (2025). Corporate governance, meritocracy, and careers. *Review of Finance*, 29(2):349–379.
- Page, S. E. (2017). *The Diversity Bonus: How Great Teams Pay Off in the Knowledge Economy*. Princeton University Press.
- Pastorino, E. (2024). Careers in firms: The role of learning about ability and human capital acquisition. *Journal of Political Economy*, 132(6):1994–2073.
- Pikulina, E. and Ferreira, D. (2024). Subtle discrimination. *Journal of Finance*, forthcoming.
- Ricart I Costa, J. E. (1988). Managerial task assignment and promotions. *Econometrica*, 56(2):449–466.
- Ronchi, M. and Smith, N. (2024). Daddy’s girl: Daughters, managerial decisions, and gender inequality.
- Sarsons, H. (2017). Recognition for group work: Gender differences in academia. *American Economic Review*, 107(5):141–45.
- Sarsons, H., Gërkhani, K., Reuben, E., and Schram, A. (2021). Gender differences in recognition for group work. *Journal of Political Economy*, 129(1):101–147.
- Waldman, M. (1984). Job assignments, signalling, and efficiency. *The RAND Journal of Economics*, 15(2):255–267.
- Waldman, M. (2012). Theory and evidence in internal labor markets. In Gibbons, R. and Roberts, J., editors, *The Handbook of Organizational Economics*, pages 520–572. Princeton University Press.
- Washington, E. L. (2008). Female socialization: How daughters affect their legislator fathers’ voting on women’s issues. *American Economic Review*, 98(1):311–332.
- Wuchty, S., Jones, B. F., and Uzzi, B. (2007). The increasing dominance of teams in production of knowledge. *Science*, 316(5827):1036–1039.
- Yu, L. (2021). Female bosses and female employees’ careers: Evidence from lawyers in Shanghai.

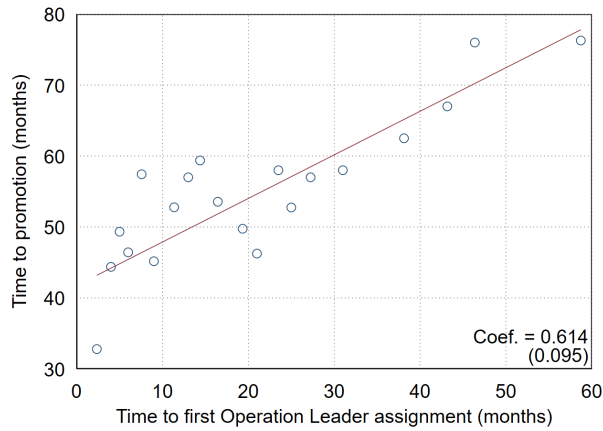
Figures and Tables

Figure 1: Promotion Gaps by Job Band

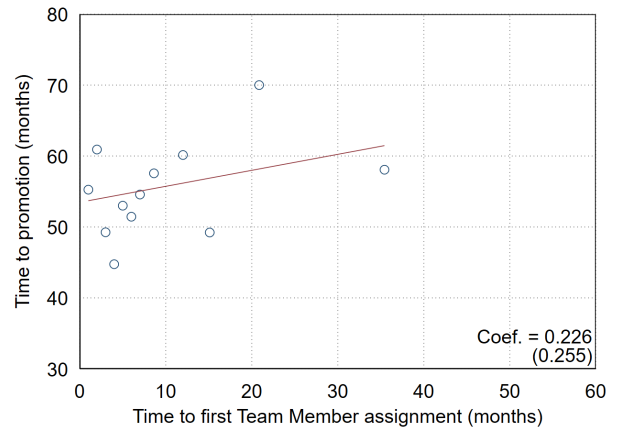


Notes: The left panel shows the estimated gender promotion gap from Equation (6) for all job bands, while the remaining panels do so for each job band separately. Bars indicate coefficient estimates and error bands indicate 95% confidence intervals. Table B.2 shows the full set of estimates. The within sample promotion hazards are 0.0275 for the full sample, and 0.0317, 0.0385, and 0.0083, for job bands 5, 6, and 7, respectively.

Figure 2: Time to First Assignments and Time to Promotion



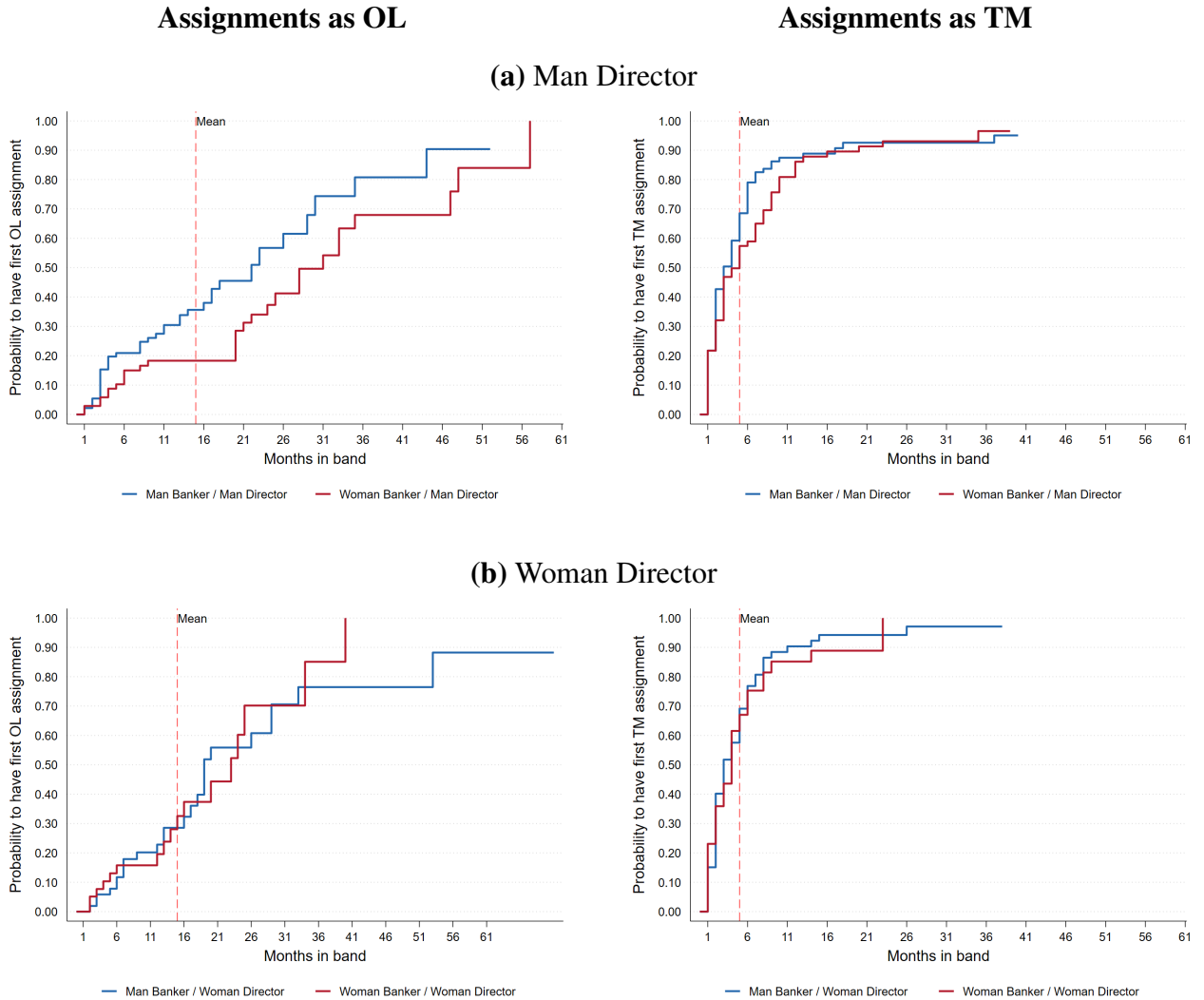
(a) Time to First Assignment for Operation Leadership



(b) Time to First Assignment for Team Membership

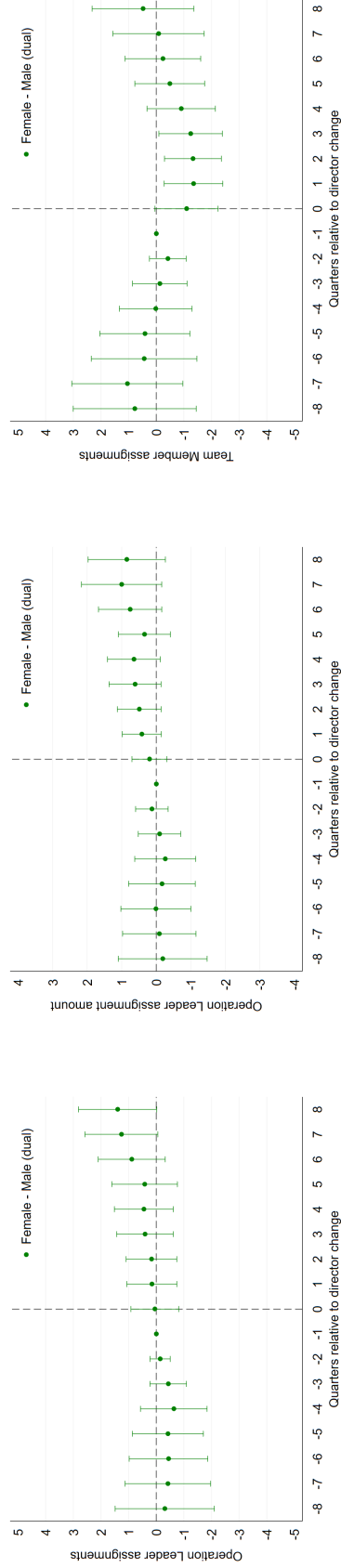
Notes: Figure shows binned scatter plots of a banker's time to promotion from job band 5 to job band 6 against her/his time to first assignment as Operation Leader in panel (a) and Team Member in panel (b), both measured in months. The sample includes all new-joiners in job band 5 for whom we observe a promotion. The lower right corner of each panel shows the coefficient and a robust standard error in parentheses for a banker-level regression of time to promotion on time to assignment ($N = 154$).

Figure 3: Assignment Probability over Career by New-joiner and their Director’s Gender



Notes: Figure presents Kaplan-Meier failure estimates of time to first Operation Leader assignment (left panels) and first Team Member assignment (right panels) for new-joiners in job band 5, by banker gender and the gender of the first director. Failure is defined as receiving a first OL assignment. Time is measured in months since entry into the job band. The sample includes all new-joiners in job band 5 for whom the gender of the first director is observed. Panel (a) shows bankers whose first director is male; panel (b) shows bankers whose first director is female. The unconditional sample mean of duration for OL assignments (excluding censored observations) is 15 months; for TM assignments 5 months.

Figure 4: Director Transitions Event Study: Dual-Double Differences Estimates



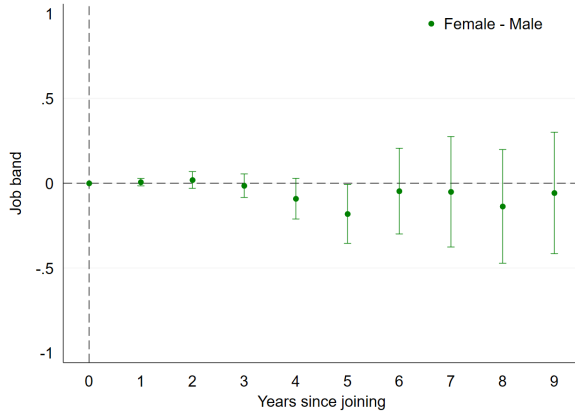
(a) Operation Leader Assignments

(b) Operation Leader Amounts

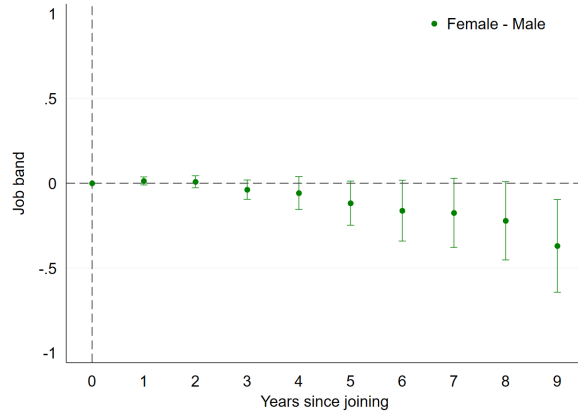
(c) Team Member Assignments

Notes: Figure shows dual-double-difference estimates from the event study specification in Equation (10). Dual-double differences show the average between the coefficients of "gaining a woman director" and the (negative value of) coefficients of "losing a woman director", given by $\frac{1}{2} \times \{[(\beta_{s,M2M}^W - \beta_{s,M2M}^M) - (\beta_{s,M2M}^W - \beta_{s,M2M}^M)] - [(\beta_{s,W2M}^W - \beta_{s,W2M}^M) - (\beta_{s,W2M}^W - \beta_{s,W2M}^M)]\}$. All coefficients are estimated from a single regression including 25,700+ monthly observations of 337 female and 378 male bankers in job band 5, and 85 directors. 174 female bankers and 185 male bankers experience events. The dependent variable in panel(a) is cumulative assignments as Operation Leader (mean 2.16, standard deviation 3.38). The dependent variable in panel(b) is the (log) cumulative volume of these Operation Leader assignments in million EUR (mean 1.34, standard deviation 1.77). The dependent variable in panel(c) is cumulative assignments as Team Member (6.88, standard deviation 6.93). Error bands indicate 95% confidence intervals obtained by double clustering at banker and director levels.

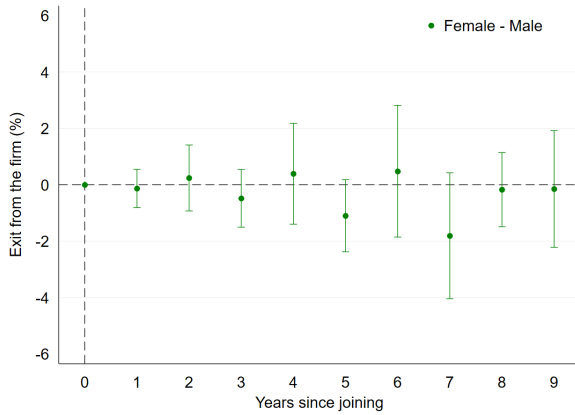
Figure 5: Gender of First Director and Long-Term Careers



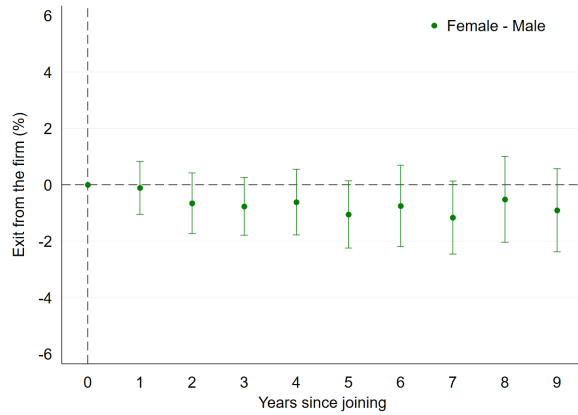
(a) Relative Job Band Change with First Female Director



(b) Relative Job Band Change with First Male Director



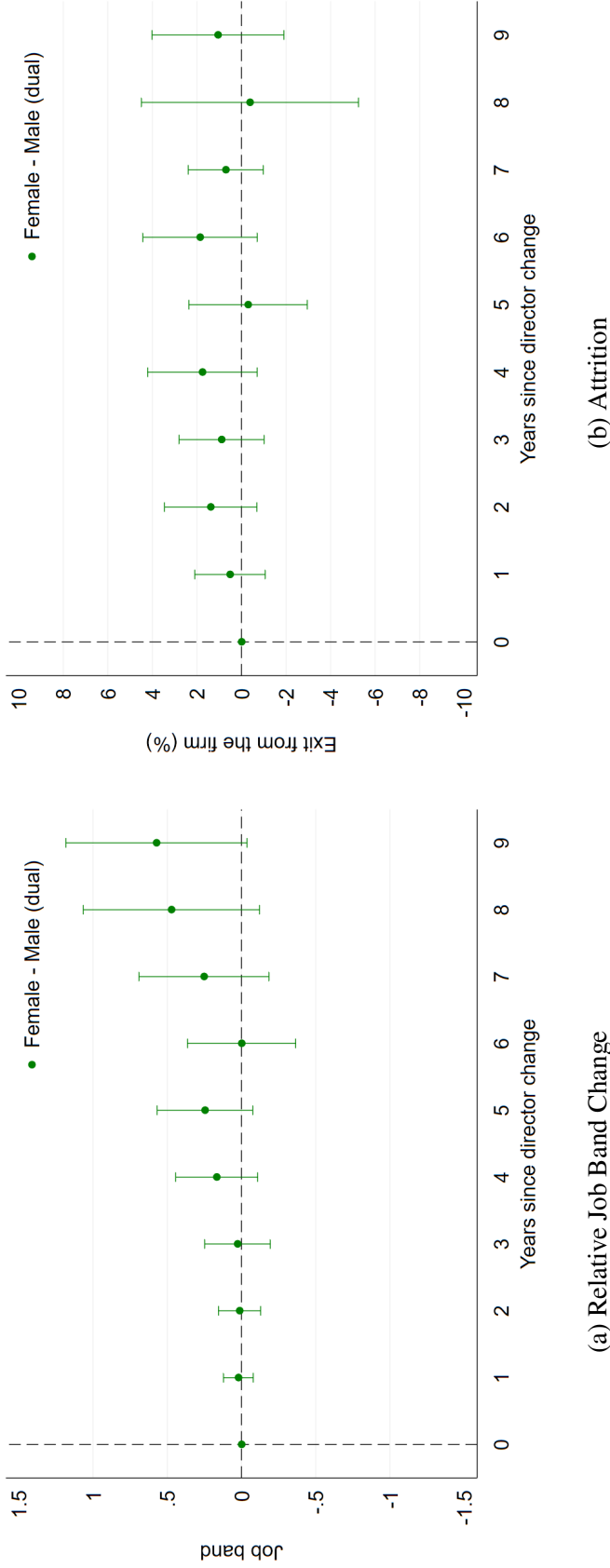
(c) Relative Attrition with First Female Director



(d) Relative Attrition with First Male Director

Notes: Figure shows estimates from the event study specification in Equation (11). Panels (a) and (c) show the difference between junior female and male bankers whose first director was female in each year after they join the firm: $\beta_{s,W}^W - \beta_{s,W}^M$. Panels (b) and (d) show the same difference for bankers whose first director was male: $\beta_{s,M}^W - \beta_{s,M}^M$. All coefficients are estimated from a single regression including 28,000+ observations of 233 female and 319 male bankers, and 84 directors. The dependent variable in panels (a) and (b) is job band; its sample mean is 5.27 and standard deviation is 0.51. The dependent variable in panels (c) and (d) is attrition (indicator multiplied by 100); its sample mean is 0.65 and standard deviation is 8.05. Error bands indicate 95% confidence intervals obtained by double clustering at banker and director levels.

Figure 6: Director Transitions and Long-Term Careers



Notes: Figure shows dual-double-difference estimates from the event study specification in Equation (12). Panel (a) reports estimates for job band progression and panel (b) for attrition. The coefficients combine variation from gaining and losing a female director and are given by $\frac{1}{2} \times \left\{ \left[\left(\beta_{s,M2W}^W - \beta_{s,M2M}^W \right) - \left(\beta_{s,M2W}^M - \beta_{s,M2M}^M \right) \right] - \left[\left(\beta_{s,W2M}^W - \beta_{s,W2W}^W \right) - \left(\beta_{s,W2M}^M - \beta_{s,W2W}^M \right) \right] \right\}$, capturing the differential effect on female bankers relative to male bankers of transitioning to a female rather than a male director, net of same-gender transitions. All coefficients are estimated from a single regression including 18,900+ monthly observations of 174 female and 186 male bankers, and 85 directors. All bankers experience a transition event. The dependent variable in panel (a) is job band (mean 5.47, standard deviation 0.64), and in panel (b) an indicator for exit (multiplied by 100; mean 0.57, standard deviation 7.52). Error bands indicate 95% confidence intervals obtained by double clustering at the banker and director levels.

Table 1: Summary Statistics by Job Band and Gender

	Job band 5		Job band 6		Job band 7		Job band 8	
	Men	Women	Men	Women	Men	Women	Men	Women
A. HR characteristics								
Age	31.28	32.68	37.05	37.45	45.39	43.71	50.22	48.83
Length of Service	2.98	4.76	6.03	8.17	10.30	12.89	13.12	14.55
Tenure in job band	34.15	39.12	33.61	33.82	59.42	55.64	60.95	49.68
Married	0.44	0.42	0.67	0.61	0.86	0.65	0.87	0.59
Child	0.30	0.30	0.59	0.56	0.75	0.66	0.76	0.56
Paid leave	0.00	0.85	0.00	1.38	0.01	1.03	0.00	0.02
Unpaid leave	0.00	0.49	0.01	1.08	0.01	0.53	0.00	0.00
Entry: job band 4	0.17	0.31	0.06	0.13	0.01	0.03	0.02	0.01
Entry: sector	0.38	0.40	0.43	0.40	0.32	0.23	0.19	0.19
Entry: banking	0.92	0.91	0.84	0.76	0.58	0.50	0.29	0.39
B. Promotion hazards								
Within sample	0.0359	0.0280	0.0351	0.0429	0.0079	0.0099	0.0307	0.0423
Monthly hazard	0.0096	0.0078	0.0085	0.0107	0.0020	0.0024	0.0027	0.0036
C. Performance								
Signings	2.83	3.41	7.16	10.47	12.30	17.73	-	-
Avg. amount	1.62	1.73	2.41	2.65	2.42	2.85	-	-
Signings as Operation Leader	0.68	0.58	3.10	3.89	6.08	8.19	-	-
Signings as Team Member	2.15	2.83	4.06	6.57	6.22	9.54	-	-
Avg. Amount as Operation Leader	0.52	0.57	1.82	2.13	2.07	2.67	-	-
Avg. Amount as Team Member	1.58	1.71	2.21	2.57	2.23	2.72	-	-
Assignments as Operation Leader	2.43	2.25	9.69	10.75	14.91	19.60	-	-
Assignments as Team Member	7.50	10.00	12.48	18.33	17.26	23.08	-	-
Assignments as Operation Leader avg. amount	0.90	0.83	2.31	2.35	2.35	2.93	-	-
Assignments as Team Member avg. amount	2.40	2.38	2.83	2.80	2.68	2.81	-	-
Signing ratio as Operation Leader	0.13	0.11	0.25	0.30	0.29	0.39	-	-
Signing ratio as Team Member	0.22	0.21	0.27	0.31	0.30	0.40	-	-
D. Assignment hazards								
Monthly hazard, Operation Leader	0.0855	0.0727	0.1434	0.1486	0.0862	0.1088	-	-
Monthly hazard, Team leader	0.1891	0.2013	0.1254	0.1283	0.1279	0.1639	-	-
E. Sample coverage								
Monthly observations	16,194	15,928	10,469	7,841	10,520	7,882	2,989	1,644
# Bankers	427	387	279	211	198	136	60	32
# Promoted	153	124	89	84	20	19	8	6

Notes: Table reports summary statistics for the banker-year-month panel by job band and gender. The sample consists of all bankers staffed on at least one project during their career. Panel A reports means for bankers' HR characteristics; panel B reports promotion hazards; panel C reports means for bankers' performance; panel D reports project assignment hazards; and panel E reports the number of observations and distinct number of bankers observed. Age and length of service are measured in years; tenure in job band, paid leave, and unpaid leave are measured in months. Other variables in Panel A are binary. In Panel B, within sample refers to the probability to be promoted conditional on at least one employee from the same job band being promoted in that month; monthly hazard refers to the unconditional probability to be promoted in any given month. In Panel C, signings are cumulative number of signed projects, and avg. amounts are cumulative sums of signed project size (in logs of EUR millions). Assignment variables are similarly defined. Signing ratio is defined as signings divided by assignments. In Panel D, monthly hazard refers to the unconditional probability that a banker is assigned a new project.

Table 2: Promotion Rule for Junior Bankers

	(1)	(2)	(3)	(4)
Signings	0.0026** (0.0011)			
Avg. amount	0.0045*** (0.0016)			
Signings as Operation Leader		0.0115*** (0.0033)		
Signings as Team Member		0.0001 (0.0006)		
Avg. amount as Operation Leader		0.0206*** (0.0039)		
Avg. amount as Team Member		0.0030* (0.0018)		
Assignments as Operation Leader			0.0078*** (0.0015)	0.0076*** (0.0015)
Assignments as Team Member			-0.0003 (0.0003)	-0.0004 (0.0003)
Assignments as Operation Leader avg amount			0.0121*** (0.0025)	0.0111*** (0.0025)
Assignments as Team Member avg amount			0.0031** (0.0014)	0.0031** (0.0014)
Signing ratio as Operation Leader				0.0248** (0.0112)
Signing ratio as Team Member				0.0052 (0.0075)
Controls	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes
R-squared	0.065	0.084	0.085	0.086
Observations	8,788	8,788	8,788	8,788
Number of bankers	803	803	803	803

Notes: Table presents results of Equation (5) on a sample that includes all bankers in job band 5 who have not yet been promoted in their current job band as of year-month t , in which at least one banker at the relevant job band is promoted. The dependent variable indicates whether a banker is promoted next month; its sample mean is 0.0317. Controls include Married, Child, Paid leave, Unpaid leave, Entry: < job band 5, Entry: sector, and Entry: banking. Fixed effects include directorates, years, and five bins each for worker age, tenure in job band, and length of service. Standard errors are clustered at the banker level and shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3: Gender Promotion Gap for Junior Bankers

	(1)	(2)	(3)	(4)
Woman	-0.0108*** (0.0040)	-0.0107*** (0.0040)	-0.0078* (0.0040)	-0.0048 (0.0035)
Signings		0.0026** (0.0011)		
Avg. amount		0.0046*** (0.0016)		
Signings as Operation Leader			0.0113*** (0.0033)	0.0073 (0.0046)
Signings as Team Member			0.0001 (0.0006)	0.0001 (0.0006)
Avg. amount as Operation Leader			0.0206*** (0.0039)	0.0286*** (0.0065)
Avg. amount as Team Member			0.0030* (0.0018)	0.0031* (0.0018)
Woman × Signings as Operation Leader				0.0086 (0.0069)
Woman × Avg. amount as Operation Leader				-0.0154* (0.0083)
Controls	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes
R-squared	0.061	0.065	0.085	0.086
Observations	8,788	8,788	8,788	8,788
Number of bankers	803	803	803	803

Notes: Table presents results of Equation (6) on a sample that includes all bankers in job band 5 who have not yet been promoted in their current job band as of year-month t , in which at least one banker at the relevant job band is promoted. The dependent variable indicates whether a banker is promoted next month; its sample mean is 0.0317. Controls include Married, Child, Paid leave, Unpaid leave, Entry: < job band 5, Entry: sector, and Entry: banking. Fixed effects include directorates, years, and five bins each for worker age, tenure in job band, and length of service. Standard errors are clustered at the banker level and shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 4: The Operation Leader Assignment Gap for Junior Bankers

	(1)	(2)	(3)	(4)	(5)
Woman	-0.0149*** (0.0043)	-0.0130*** (0.0043)	-0.0130*** (0.0043)	-0.0147*** (0.0044)	-0.0147*** (0.0044)
Signings as Operation Leader		0.0078*** (0.0020)	0.0078*** (0.0020)	0.0059** (0.0026)	0.0063** (0.0026)
Signings as Team Member		0.0011** (0.0005)	0.0011** (0.0005)	0.0010* (0.0005)	0.0011** (0.0005)
Avg. amount as Operation Leader		0.0159*** (0.0028)	0.0159*** (0.0028)	0.0172*** (0.0040)	0.0171*** (0.0040)
Avg. amount as Team Member		0.0045** (0.0018)	0.0045** (0.0018)	0.0045** (0.0018)	0.0049*** (0.0018)
Woman × Signings as Operation Leader				0.0041 (0.0036)	0.0042 (0.0036)
Woman × Avg. amount as Operation Leader				-0.0026 (0.0054)	-0.0027 (0.0055)
Controls	Yes	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes	Yes
Director FE					Yes
R-squared	0.062	0.069	0.069	0.069	0.073
Dep. Var. Mean	0.077	0.077	0.077	0.077	0.077
Observations	20,861	20,861	20,861	20,861	20,861
Number of projects	1,613	1,613	1,613	1,613	1,613
Number of Directors	75	75	75	75	75
Number of Bankers	522	522	522	522	522
Number of Female Bankers	235	235	235	235	235

Notes: Table presents results of Equation (8) on a banker-project panel of eligible bankers. The sample includes all job band 5 bankers eligible for projects in which the Operation Leader (OL) is in job band 5. Eligibility is defined based on directorate overlap among bankers staffed on the project. The dependent variable indicates whether banker i is assigned to project j as OL. Its sample mean is 0.077. Controls include performance measures and banker characteristics as defined in Equation (7) and table (3). Fixed effects include project, directorates, and years. Standard errors are clustered at the banker level and shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 5: Time to First Operation Leader Assignment and Initial Director Characteristics

	(1)	(2)	(3)	(4)	(5)	(6)
Woman	3.5765 (2.4916)	3.8713 (2.9936)				
Woman × Director is female			-3.8578 (3.7617)			
Woman × Director is male			9.0763* (4.8460)			
Woman × Director is a parent				6.4041 (5.4031)		
Woman × Director is not a parent				2.5952 (4.1436)		
Woman × Director is high flyer (p25)					9.5580 (5.7507)	
Woman × Director is low flyer (p25)					2.1526 (3.4988)	
Woman × Director is high flyer (p33)						9.5580 (5.7507)
Woman × Director is low flyer (p33)						2.1526 (3.4988)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.551	0.611	0.639	0.613	0.618	0.618
Observations	108	99	99	99	99	99
Equality of coefficients (p-value)			0.04	0.61	0.28	0.28

Notes: Table presents results of Equation (9). The dependent variable is the number of months between a banker's date of joining the organization and receiving his/her first assignment as Operation Leader. The sample includes the cross-section of bankers who joined the organization in job band 5, received an assignment as Operation Leader during the sample period, and remained with the same director during this period. High- and low-flyer definitions are based on the age distribution when a director first obtains such management responsibility (p25 = 40.25 and p33 = 41.50). Controls include Married, Child, Entry: < job band 5, Entry: sector, and Entry: banking. Fixed effects include directorates, years, and five bins of worker age. Standard errors are clustered at the director level and shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Online Appendix for

Gender Promotion Gaps in Knowledge Work: The Role of Task Assignment in Teams

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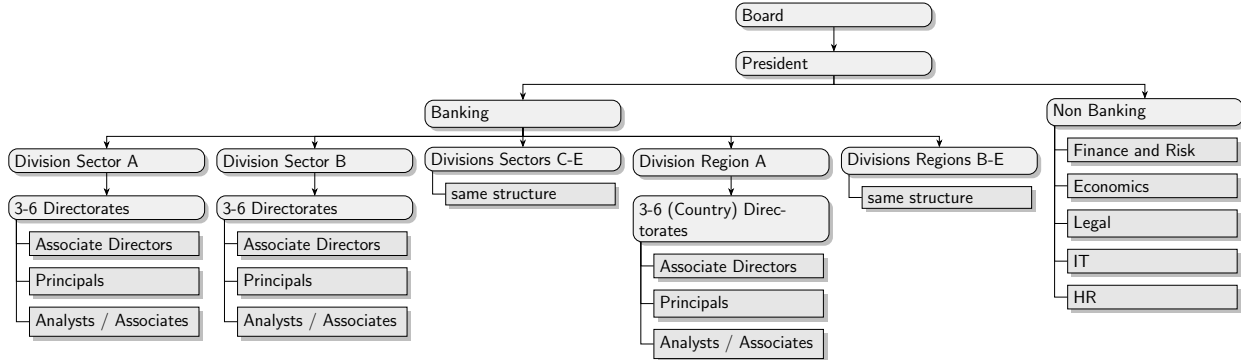
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A Setting and Data

This section provides further detail into the organization that we are studying in the main body of the paper. The information described here is based on the confidential administrative data that we have been given access to, informal interviews with staff from various levels of the organization, and our own reading of documents that describe the organization’s day-to-day operations (e.g. the “Staff Handbook”) as well as its publicly available documentation.

Organizational chart Figure A.1 presents a stylized version of the firm’s organizational chart. While there have been strategic changes over our study period, for instance the inclusion of new operation regions or changes in the significance of individual sectors, the structure of the organization, operation and allocation of decision rights remained largely unchanged. Hence, this figure reports a snapshot of the FI’s organization in 2014. Managing directors (job band 9) in Banking are responsible for each division, which consists of several directorates. Each directorate is either concerned with one country group or a sector (approx. on a one-digit SIC code level) and is run by a Director (job band 8). Directors oversee bankers at three job band levels: Associate Directors (job band 7), Principals (job band 6), and Analyst/Associates (job band 5). We exclude interns, executive assistants, short-term consultants and other staff (job bands 1-4) from the analysis, as they are not involved in the FI’s main project work and therefore do not appear on the project tracking database.

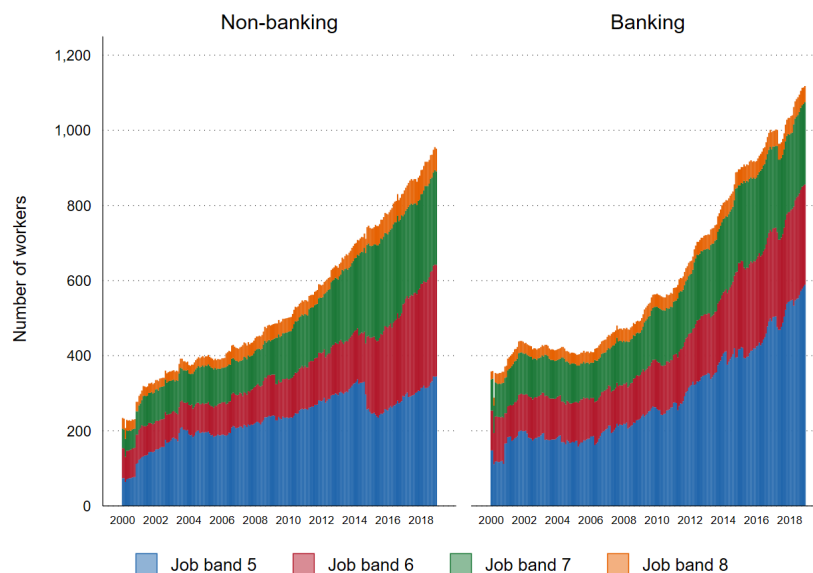
Figure A.1: Stylized Organizational Chart



Notes: Stylized representation of the FI’s organizational chart.

Figure A.2 shows how the FI’s workforce has grown over the 2000-2018 period. The majority of the workforce – around 55% of all staff in 2018 – is employed in banking divisions, shown on the right panel of the figure, while the remaining workforce is employed in the non-banking support divisions, such as finance, risk, IT, and HR. It is clear from the figure that the organization follows a typical corporate hierarchy: junior staff in job band 5 make up just over half of the workforce, mid-senior staff at job bands 6 and 7 each account for around 20% of staff, and senior staff at job band 8 make up for a small share.

Figure A.2: Size of the Workforce



Notes: Figure shows the size of the workforce for job bands 5-8 in the non-banking (left panel) and banking (right panel) divisions of the FI in the raw data.

Table A.1 shows descriptive statistics for directorates when we arrange the data in a directorate-month level panel setting. Each director oversees the start of 1.47 projects with EUR 35.58 million in total volume each month on average. The average size of a directorate is 13.38 and consists of 6.25 junior bankers in band 5, 3.56 bankers in band 6, and 3.57 bankers in band 7. At the junior level, there is gender parity, but at the mid-senior levels there are more men.

Table A.1: Directorate Summary Statistics

	mean	sd	p25	p50	p75
Projects	1.47	1.91	0.00	1.00	2.00
Amounts (million EUR)	35.42	78.62	0.00	0.00	35.00
Bankers	13.38	9.22	6.00	12.00	18.00
Bankers in band 5	6.25	4.68	3.00	5.00	9.00
Female bankers in band 5	3.10	2.55	1.00	3.00	4.00
Male bankers in band 5	3.15	3.03	1.00	2.00	4.00
Bankers in band 6	3.56	3.60	1.00	2.00	5.00
Female bankers in band 6	1.53	1.68	0.00	1.00	2.00
Male bankers in band 6	2.04	2.39	0.00	1.00	3.00
Bankers in band 7	3.57	2.94	1.00	3.00	6.00
Female bankers in band 7	1.53	1.63	0.00	1.00	2.00
Male bankers in band 7	2.04	1.89	0.00	2.00	3.00

Notes: Table presents summary statistics of directorates managed by one Director from a panel at the directorate-month level. *Projects* is the number of new project starts with an Operation Leader from the directorate in any given month. *Amounts* is the total volume of new projects started and led by an Operation Leader from the directorate in that month. *Bankers* is the total number of bankers from job bands 5, 6, and 7 who report to the Director in that directorate.

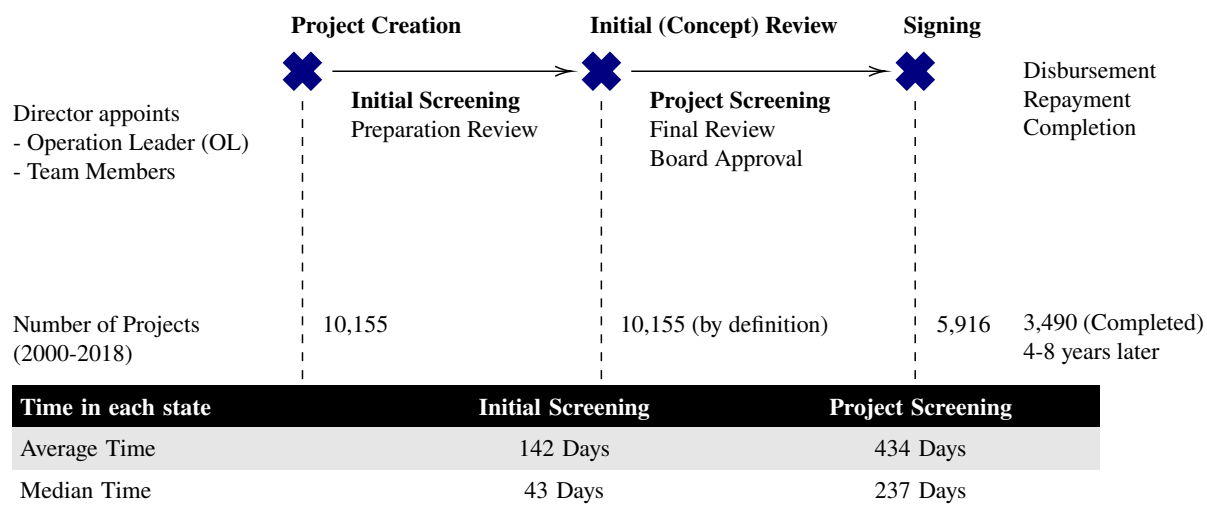
Project life-cycle Figure A.3 shows the life-cycle and steps of a project in its approval process within the organization. We focus only on projects which have at least passed the initial (concept) review. The project is first entered into the FI’s project tracking database when it arrives at a directorate and a team is assigned. Afterwards there are two review stages: a “*concept*” and a “*final*” review. The general criteria for the project to be approved by the investment committee are its overall fit with the organizational goals, an economic, social, or environmental impact rating calculated by the bank’s economists, and the project’s financial risk assessed by the credit department. The latter two ratings are available in the data and (re-)assessed at each review stage. Importantly, many of the parameters (like interest rates or timing of repayment) will not be under the exclusive purview of the banking team but rather are determined in a process between all members of the project team and, in particular, the investment committee.

In the time leading up to the concept review, the team conducts initial screening and preparation work. The purpose of this initial review is to determine whether the proposed operation fits into the bank’s operating principles before significant resources are used for the further development of the project. Additionally, it allows the project team to receive feedback from non-banking departments and senior management. Points that the committee addresses are a proposed general transaction structure as well as comments and guidance for the following due diligence and structuring phase.

In the time leading up to the final review, the team’s work consists in developing the project’s overall structure. Around 60% of projects pass the final review stage conditional on passing concept review. In order to prepare final review, the team collects information about the project and proposes a financial structure to ensure that the investment committee is able to make an informed decision on whether to finally approve the project or not. Further, the committee confirms expected compliance with bank policies, priorities, and strategies. Moreover, the final review serves as a tool to determine how to approach any remaining due diligence and ensure that potentially outstanding issues are resolved. At this point, a contract proposal with the client which specifies the structure

and the main terms of the financing exists.

Figure A.3: Project Life-cycle



Notes: Figure shows the life-cycle and steps of a project in its approval process within the organization.

After this approval process, the project is approved and signed by the Board of the FI and ultimately executed (disbursement of the financing, repayment, and social impact delivery). Several years may pass until repayment of the financing and the attainment of social impact. The portfolio and economics units track the financial progress and the delivery of impact, respectively, every six months between signing and final repayment. Immediate action is taken once assets become impaired or are not performing as desired. Importantly, the long-term nature of project execution means that promotion cycles are shorter than the revelation of project success. In particular, at the time of promotions, it is often not yet known what the outcome of a project is, making number of projects signed and their amount the main performance measures.

Table A.2 shows summary statistics for all projects reviewed by the FI during 2000-2018 for a set of variables that we can observe in the project tracking database. For instance, out of a total of 10,155 projects, only 5,916 pass the review stages described above and are eventually signed by the FI. The average project reviewed is EUR 30 million in size, but the median is EUR 14 million, meaning that there are some very large projects in the FI's portfolio. A banking project team spends 142 days on average in preparation before they go to the FI's investment committee for a first review. On average, 1 in 5 projects includes an equity product, 44% is a transaction with an existing client, and only 59% of the signed projects are completed during our sample period, meaning that the client has fully repaid the FI's loan (in the case of a debt product) or if the FI has fully sold its equity investment (in the case of an equity product).

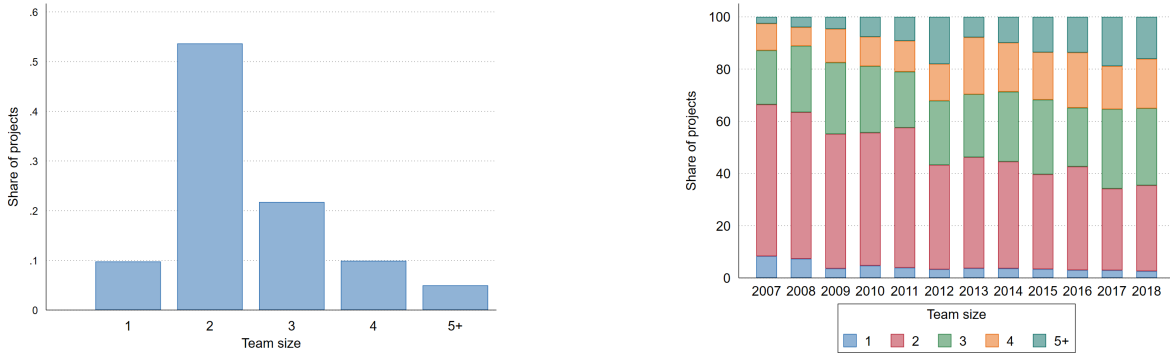
Table A.2: Project Summary Statistics

	All Projects			Signed Projects		
	mean	median	sd	mean	median	sd
Amount (million EUR)	29.79	14.12	46.76	24.40	10.00	37.78
Risk rating (1-8)	6.04	6.00	0.86	5.99	6.00	0.87
Preparation time (days)	142.24	43.00	238.24	140.52	49.00	230.14
Time to signing (days)	433.79	237.00	647.02	433.79	237.00	647.02
Equity product	0.20	0.00	0.40	0.18	0.00	0.38
Repeat client	0.44	0.00	0.50	0.61	1.00	0.49
Completed	0.36	0.00	0.48	0.59	1.00	0.49
Observations	10,155			5,916		

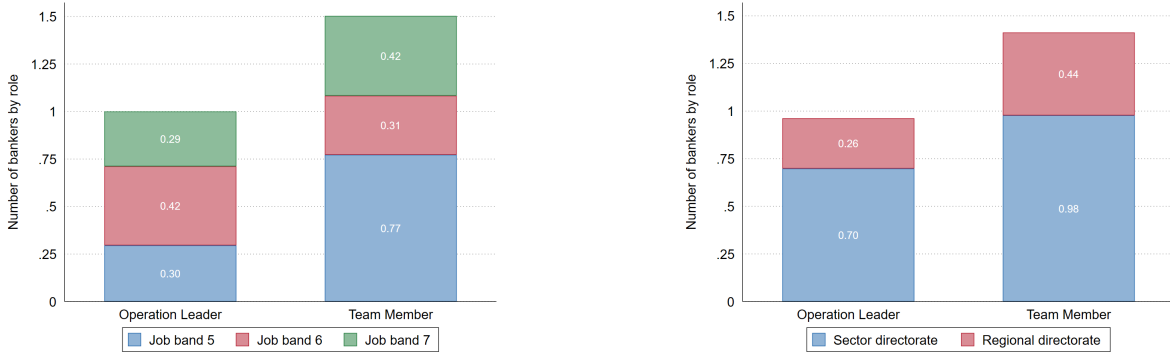
Notes: Table presents summary statistics at the project level. The left panel includes all projects that pass the FI’s initial investment review (“concept review stage”) and the right panel includes projects that also pass subsequent reviews and are eventually signed. *Risk* is evaluated on a scale from 1 to 8 in 20 increments. *Preparation time* is the number of days between when a project is first logged on the FI’s systems and when it reaches the FI’s initial investment review stage. *Time to signing* is the number of days between when a project is approved at the FI’s initial review stage and when it is eventually signed (defined only for signed projects). *Equity product* indicates whether the project has an equity finance component, including for instance growth capital, pre-IPO or IPO financing. *Repeat client* indicates whether the FI has signed a project with the client before. *Completed* indicates if the client has fully repaid the FI’s loan (in the case of a debt product) or if the FI has fully sold its equity holdings (in the case of an equity product).

The banking project team Figure A.4 shows summary statistics for banking project teams based on the cross-section of projects reviewed by the FI during our sample period. Panel (a) shows that just over half of all teams consist of two bankers, just over 20% of all teams have three bankers, and 10% of teams have four bankers staffed on a project. A small share of projects appear to have one banker only, while a minority of projects have five or more. Team size has grown over time as project volumes have gotten bigger and projects have become more complex. Panel (b) shows the composition of team roles by job bands in the pooled cross-section. For instance, one of the team members is the operation leader (OL) who is a banker in job band 6 in 40% of cases. The other 1.5 team members (on average) are mostly junior bankers in job band 5 who occasionally work as OL (in 31% of cases). In this case, they are usually assisted by more senior team members. Additional non-banking team members are economists, lawyers, risk officers and potentially other experts (e.g. environmental specialists), who are not shown. Economists help with the evaluation of the project’s social impact, while lawyers are involved in the contractual details of the agreement, and risk officers assess the financial viability of the deal.

Figure A.4: The Banking Project Team



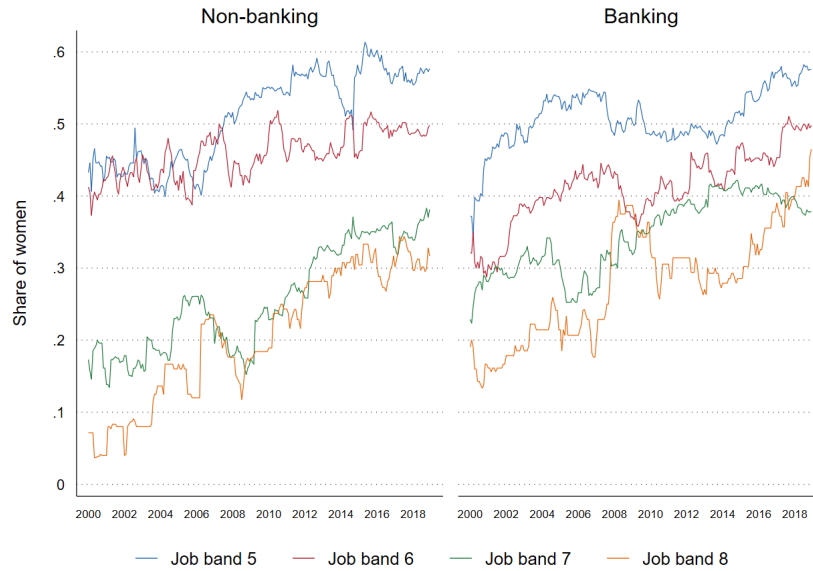
(a) Team size distribution in the pooled cross-section and over the sample period



(b) Composition of teams by role, seniority, and directorate over the sample period

Notes: Figure provides the distribution of different team sizes and the team composition by role and seniority for projects reviewed by the FI during the sample period, April 2007 to December 2018. Panel (a) shows the team size distribution in the pooled cross-section and over time. Panel (b) shows the composition of team roles by job bands in the pooled cross-section.

Figure A.5: Share of Women by Job Band and Division



Notes: Figure shows the share of women in the workforce for job bands 5-8 in the non-banking (left panel) and banking (right panel) divisions of the FI in the raw data.

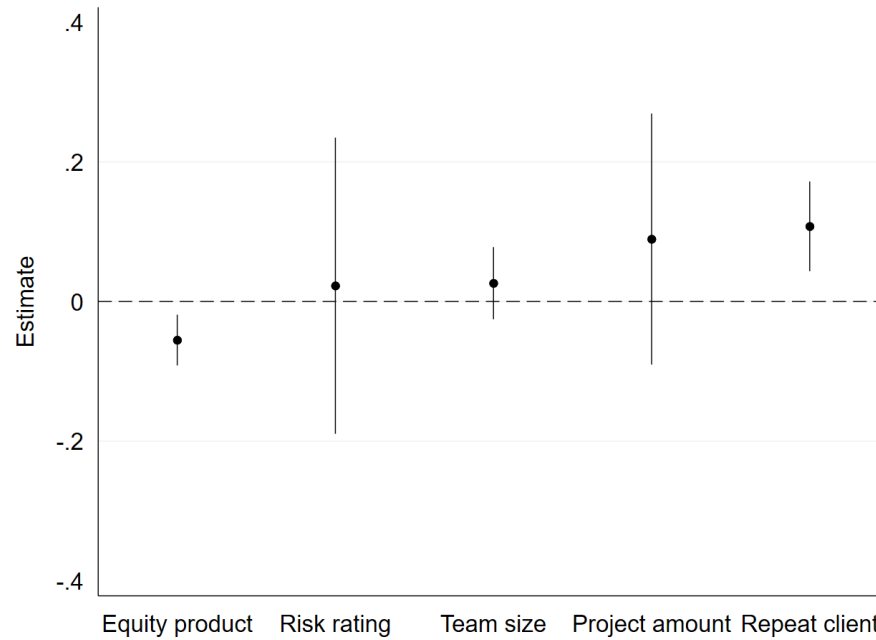
Table A.3: Career Transition Matrix by Gender

	Bands 1-4	Band 5	Band 6	Band 7	Band 8	Band 9	Move to non-banking	Exit
Women								
Entry	18.64	68.81	8.81	3.05	0.68	0.00	0.00	0.00
Bands 1-4	97.39	2.58	0.00	0.03	0.00	0.00	0.00	0.00
Band 5	0.02	98.54	0.80	0.00	0.00	0.00	0.56	0.08
Band 6	0.00	0.04	98.21	1.11	0.00	0.00	0.55	0.09
Band 7	0.00	0.00	0.04	99.12	0.27	0.00	0.43	0.14
Band 8	0.00	0.00	0.00	0.00	99.13	0.35	0.41	0.12
Band 9	0.00	0.00	0.00	0.00	0.00	98.61	0.93	0.46
Men								
Entry	10.62	67.41	14.32	5.68	1.73	0.25	0.00	0.00
Bands 1-4	89.56	10.24	0.20	0.00	0.00	0.00	0.00	0.00
Band 5	0.02	98.12	1.02	0.01	0.00	0.00	0.76	0.08
Band 6	0.00	0.06	98.16	0.90	0.00	0.00	0.81	0.08
Band 7	0.00	0.00	0.00	99.00	0.20	0.00	0.69	0.11
Band 8	0.00	0.00	0.00	0.06	98.97	0.26	0.62	0.09
Band 9	0.00	0.00	0.00	0.00	0.09	98.87	0.96	0.09

Notes: Table presents monthly transition probabilities in percentages at the FI for banking staff only. Job bands 1-4 include support roles such as interns, short-term consultants, and team assistants.

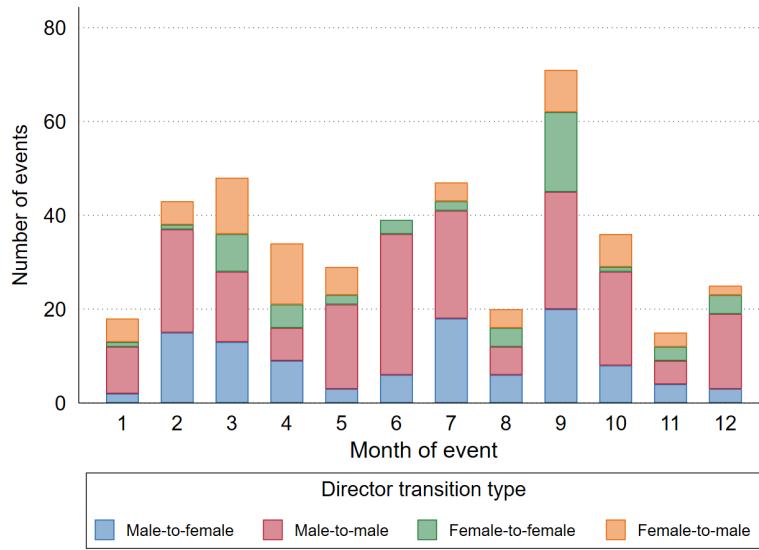
B Additional Results

Figure B.1: Project Characteristics by Gender



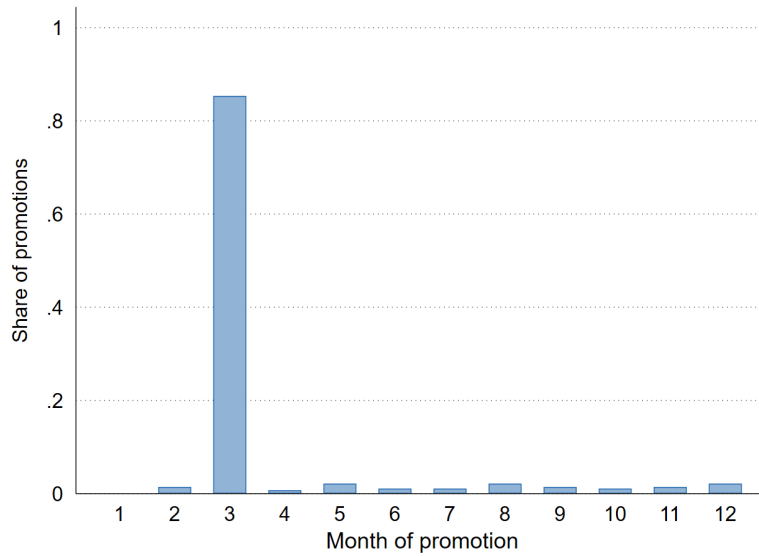
Notes: Figure shows estimates from a regression of each project characteristic shown on the x-axis on an indicator for woman OL and directorate and year fixed effects. The woman OL coefficient estimate is shown. Error bands indicate 95% confidence intervals obtained by clustering at directorate level.

Figure B.2: Distribution of Director Transition Events



Notes: Figure shows the distribution of director transition events by type and month of the year in which the transition takes place.

Figure B.3: Distribution of Junior Bankers' Promotions



Notes: Figure shows the distribution of promotions for junior bankers taking place over the course of a year.

Table B.1: The Promotion Rule for Senior Bankers

	Job band 6				Job band 7			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Signings	0.0004 (0.0006)				-0.0000 (0.0002)			
Avg. amount	0.0058** (0.0025)				0.0022 (0.0014)			
Signings as Operation Leader		0.0033*** (0.0012)				-0.0001 (0.0002)		
Signings as Team Member		-0.0007 (0.0006)				0.0001 (0.0003)		
Avg. amount as Operation Leader		0.0059** (0.0025)				-0.0000 (0.0014)		
Avg. amount as Team Member		0.0023 (0.0024)				0.0015 (0.0015)		
Assignments as Operation Leader			0.0015*** (0.0006)	0.0014** (0.0006)			-0.0001 (0.0002)	-0.0001 (0.0002)
Assignments as Team Member			-0.0003 (0.0003)	-0.0004 (0.0003)			0.0000 (0.0001)	-0.0000 (0.0002)
Assignments as Operation Leader avg amount			0.0030 (0.0029)	0.0017 (0.0029)			0.0003 (0.0016)	0.0003 (0.0016)
Assignments as Team Member avg amount			0.0069** (0.0030)	0.0062** (0.0031)			0.0030 (0.0020)	0.0030 (0.0019)
Signing ratio as Operation Leader				0.0457*** (0.0148)				-0.0093 (0.0077)
Signing ratio as Team Member				0.0205 (0.0175)				0.0150 (0.0123)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.060	0.063	0.062	0.066	0.020	0.020	0.020	0.022
Observations	4,493	4,493	4,493	4,493	4,552	4,552	4,552	4,552
Number of bankers	478	478	478	478	319	319	319	319

Notes: Table presents results of Equation (6) on a sample of job band 6 bankers in columns (1)-(4) and job band 7 bankers in columns (5)-(8), who have not yet been promoted in their current job band as of year-month t , in which at least one banker at the relevant job band is promoted. The dependent variable indicates whether a banker is promoted next month. Fixed effects include directorates, years, and five bins each for worker age, tenure in job band, and length of service. Standard errors are clustered at the banker level and shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table B.2: The Promotion Gaps by Job Band

	All bands			Job band 5					Job band 6			Job band 7		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		
Woman	-0.0044* (0.0026)	-0.0029 (0.0026)	-0.0026 (0.0026)	-0.0116*** (0.0040)	-0.0108*** (0.0040)	-0.0108*** (0.0040)	0.0062 (0.0063)	0.0109 (0.0067)	0.0108 (0.0067)	0.0025 (0.0033)	0.0037 (0.0038)	0.0037 (0.0039)		
Married	0.0013 (0.0030)	0.0013 (0.0030)	0.0003 (0.0030)	0.0037 (0.0049)	0.0019 (0.0049)	0.0019 (0.0049)	0.0068 (0.0077)	0.0068 (0.0077)	0.0083 (0.0079)	-0.0009 (0.0043)	-0.0009 (0.0043)	-0.0011 (0.0042)		
Child	0.0043 (0.0033)	0.0043 (0.0033)	0.0048 (0.0034)	0.0041 (0.0063)	0.0052 (0.0063)	0.0052 (0.0063)	0.0017 (0.0078)	0.0017 (0.0078)	0.0012 (0.0078)	0.0021 (0.0038)	0.0021 (0.0038)	0.0026 (0.0038)		
Paid leave	0.0008 (0.0013)	0.0008 (0.0013)	0.0010 (0.0013)	0.0023 (0.0025)	0.0024 (0.0025)	0.0024 (0.0025)	-0.0000 (0.0025)	-0.0000 (0.0025)	0.0005 (0.0025)	-0.0017 (0.0013)	-0.0017 (0.0013)	-0.0019 (0.0013)		
Unpaid leave	-0.0031** (0.0013)	-0.0031** (0.0013)	-0.0031** (0.0013)	-0.0060** (0.0028)	-0.0056* (0.0030)	-0.0056* (0.0030)	-0.0037* (0.0019)	-0.0037* (0.0019)	-0.0041** (0.0019)	0.0012 (0.0023)	0.0012 (0.0023)	0.0014 (0.0023)		
Entry: < job band 5			-0.0172*** (0.0040)			-0.0244*** (0.0055)			-0.0069 (0.0089)			0.0176 (0.0119)		
Entry: sector			0.0017 (0.0036)			0.0003 (0.0068)			-0.0048 (0.0076)			0.0041 (0.0043)		
Entry: banking			-0.0047 (0.0044)			0.0035 (0.0091)			-0.0149 (0.0115)			-0.0029 (0.0049)		
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Job band effects	Yes	Yes	Yes											
R-squared	0.039	0.040	0.041	0.058	0.059	0.061	0.057	0.058	0.059	0.018	0.019	0.020		
Observations	17,834	17,834	17,834	8,788	8,788	8,788	4,493	4,493	4,493	4,552	4,552	4,552		
Number of bankers	1,142	1,142	1,142	803	803	803	478	478	478	319	319	319		

Notes: Table presents results of Equation (6) on the full sample of bankers in columns (1)-(3), job band 5 bankers in columns (4)-(6), job band 6 bankers in columns (7)-(9), and job band 7 bankers in columns (10)-(12), who have not yet been promoted in their current job band as of year-month t , in which at least one banker at the relevant job band is promoted. The dependent variable indicates whether a banker is promoted next month. Fixed effects include directorates, years, and five bins each for worker age, tenure in job band, and length of service. Standard errors are clustered at the banker level and shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table B.3: Descriptives of the Assignment Panel Data

	mean	sd	min	p25	p50	p75	max
A. Bankers Eligible							
- Number all bankers	27.60	13.52	1.00	16.00	26.00	36.00	89.00
- Number band 5	11.34	6.66	0.00	6.00	10.00	15.00	49.00
- Number band 6	8.52	5.05	0.00	5.00	8.00	11.00	36.00
- Number band 7	7.74	4.24	0.00	5.00	7.00	10.00	27.00
- Number women	12.74	6.55	0.00	8.00	12.00	17.00	40.00
- Number women, band 5	5.35	3.19	0.00	3.00	5.00	7.00	22.00
B. Directors							
- Number directors	1.54	0.62	1.00	1.00	1.00	2.00	5.00
- Number woman directors	0.43	0.59	0.00	0.00	0.00	1.00	3.00
- Number woman director appointing OL	0.28	0.45	0.00	0.00	0.00	1.00	1.00
- Woman OL	0.44	0.50	0.00	0.00	0.00	1.00	1.00
- Woman TMs	0.58	0.71	0.00	0.00	0.00	1.00	5.00
- OL Band 5	0.29	0.45	0.00	0.00	0.00	1.00	1.00
- Woman OL Band 5	0.13	0.33	0.00	0.00	0.00	0.00	1.00
N	5552						

Notes: Tables provides descriptive of the assignment panel used in 8. Panel A shows the number of bankers eligible per project, B the number of directors involved, and C information on the project team, for a total of 5552 projects during the sample period from April 2007 to December 2018.

Table B.4: The Operation Leadership Assignment Gap: All Job Bands

	Pooled			Band 5				Band 6				Band 7				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Woman	-0.0012 (0.0011)	-0.0008 (0.0011)	-0.0008 (0.0011)	-0.0037*** (0.0013)	-0.0149*** (0.0043)	-0.0130*** (0.0043)	-0.0130*** (0.0043)	-0.0147*** (0.0044)	-0.0034 (0.0057)	-0.0023 (0.0058)	-0.0014 (0.0059)	-0.0014 (0.0059)	0.0078 (0.0076)	0.0156** (0.0077)	0.0172** (0.0078)	0.0172** (0.0078)
Signings as Operation Leader	0.0017*** (0.0001)	0.0017*** (0.0001)	0.0017*** (0.0001)	0.0015*** (0.0002)	0.0078*** (0.0020)	0.0078*** (0.0020)	0.0083*** (0.0020)	0.0063** (0.0026)	0.0053*** (0.0008)	0.0052*** (0.0008)	0.0046*** (0.0010)	0.0046*** (0.0010)	0.0058*** (0.0006)	0.0056*** (0.0006)	0.0056*** (0.0006)	0.0055*** (0.0007)
Signings as Team Member	-0.0002*** (0.0001)	-0.0003*** (0.0001)	-0.0003*** (0.0001)	-0.0003*** (0.0001)	0.0011** (0.0005)	0.0011** (0.0005)	0.0011** (0.0005)	0.0011** (0.0005)	-0.0008* (0.0004)	-0.0008* (0.0004)	-0.0009* (0.0005)	-0.0010** (0.0005)	-0.0009* (0.0005)	-0.0009* (0.0005)	-0.0009 (0.0005)	-0.0009 (0.0005)
Avg. amount as Operation Leader	0.0050*** (0.0005)	0.0049*** (0.0005)	0.0049*** (0.0005)	0.0045*** (0.0006)	0.0159*** (0.0028)	0.0159*** (0.0028)	0.0157*** (0.0029)	0.0171*** (0.0040)	0.0080*** (0.0022)	0.0080*** (0.0022)	0.0080*** (0.0022)	0.0088*** (0.0026)	0.0042 (0.0030)	0.0042 (0.0030)	0.0029 (0.0036)	0.0017 (0.0036)
Avg. amount as Team Member	0.0016*** (0.0004)	0.0015*** (0.0004)	0.0015*** (0.0004)	0.0016*** (0.0004)	0.0045*** (0.0018)	0.0045*** (0.0018)	0.0048*** (0.0018)	0.0049*** (0.0018)	0.0035* (0.0021)	0.0035* (0.0021)	0.0036* (0.0021)	0.0038* (0.0021)	0.0022 (0.0033)	0.0022 (0.0033)	0.0016 (0.0034)	0.0021 (0.0034)
Woman × Signings as Operation Leader				0.0004 (0.0003)				0.0042 (0.0036)					0.0016 (0.0015)			0.0004 (0.0011)
Woman × Avg. amount as Operation Leader				0.0009 (0.0008)				-0.0027 (0.0055)					-0.0020 (0.0030)			0.0033 (0.0039)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Director FE																
R-squared	0.021	0.023	0.024	0.024	0.062	0.069	0.073	0.073	0.062	0.066	0.071	0.071	0.061	0.072	0.080	0.080
Dep. Var. Mean	0.036	0.036	0.036	0.036	0.077	0.077	0.077	0.077	0.107	0.107	0.107	0.107	0.127	0.127	0.127	0.127
Observations	153,253	153,253	153,253	153,253	20,861	20,861	20,861	20,861	21,234	21,234	21,234	21,234	12,758	12,758	12,756	12,756
Number of projects	5,548	5,548	5,548	5,548	1,613	1,613	1,613	1,613	2,271	2,271	2,271	2,271	1,625	1,625	1,625	1,625
Number of Directors	83	83	83	83	75	75	75	75	74	74	74	74	72	72	70	70
Number of Bankers	816	816	816	816	522	522	522	522	430	430	430	430	281	281	281	281
Number of Female Bankers	351	351	351	351	235	235	235	235	189	189	189	189	116	116	116	116

Notes: Table presents results of Equation (8) on a banker-project panel of eligible bankers. The sample includes all bankers in the relevant job band (all in columns (1)-(4); band 5 in (5)-(8); band 6 in (9)-(12); and band 7 in (13)-(16)) eligible for projects in which the Operation Leader (OL) is in the same job band. Eligibility is defined based on directorate overlap among bankers staffed on the project. The dependent variable indicates whether banker i is assigned to project j as OL. Its sample mean is provided in the table. Controls include performance measures and banker characteristics as defined in Equation (7) and table (3). Fixed effects include project, directorates, and years. Pooled regressions in columns (1)-(4) include job band FE. Standard errors are clustered at the banker level and shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table B.5: The Team Membership Assignment Gap for Junior Bankers

	Pooled			Band 5					Band 6					Band 7				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)		
Woman	-0.0006 (0.0012)	-0.0019 (0.0013)	-0.0021* (0.0013)	-0.0013 (0.0019)	0.0008 (0.0021)	0.0001 (0.0021)	0.0002 (0.0021)	-0.0005 (0.0025)	-0.0022 (0.0020)	-0.0029 (0.0021)	-0.0035* (0.0021)	-0.0025 (0.0034)	-0.0020 (0.0026)	-0.0049* (0.0026)	-0.0058** (0.0026)	-0.0133** (0.0061)		
Signings as Operation Leader	0.0004*** (0.0001)	0.0004*** (0.0001)	0.0004*** (0.0001)	0.0003** (0.0001)	0.0002 (0.0008)	0.0002 (0.0008)	0.0005 (0.0008)	0.0012 (0.0010)	0.0008*** (0.0003)	0.0008*** (0.0003)	0.0007*** (0.0003)	0.0005* (0.0003)	0.0005* (0.0003)	-0.0001 (0.0002)	-0.0002 (0.0002)	-0.0004** (0.0002)		
Signings as Team Member	0.0013*** (0.0001)	0.0013*** (0.0001)	0.0013*** (0.0001)	0.0013*** (0.0001)	0.0005** (0.0002)	0.0005** (0.0002)	0.0005** (0.0002)	0.0005** (0.0002)	0.0011*** (0.0002)	0.0011*** (0.0002)	0.0010*** (0.0002)	0.0010*** (0.0002)	0.0010*** (0.0002)	0.0015*** (0.0002)	0.0015*** (0.0002)	0.0015*** (0.0002)		
Avg. amount as Operation Leader	-0.0009* (0.0005)	-0.0008* (0.0005)	-0.0008* (0.0005)	-0.0003 (0.0006)	-0.0038*** (0.0011)	-0.0038*** (0.0011)	-0.0033*** (0.0011)	-0.0047*** (0.0015)	-0.0001 (0.0008)	-0.0001 (0.0008)	-0.0001 (0.0008)	0.0004 (0.0010)	0.0004 (0.0010)	0.0016 (0.0010)	0.0018* (0.0010)	0.0017 (0.0013)		
Avg. amount as Team Member	0.0017*** (0.0005)	0.0018*** (0.0005)	0.0018*** (0.0005)	0.0018*** (0.0005)	0.0024*** (0.0009)	0.0024*** (0.0009)	0.0029*** (0.0009)	0.0028*** (0.0009)	0.0010 (0.0007)	0.0010 (0.0007)	0.0008 (0.0007)	0.0009 (0.0007)	0.0009 (0.0007)	0.0048*** (0.0011)	0.0050*** (0.0011)	0.0055*** (0.0011)		
Woman × Signings as Operation Leader				0.0003 (0.0002)				-0.0015 (0.0013)				0.0004 (0.0005)				0.0007* (0.0004)		
Woman × Avg. amount as Operation Leader				-0.0011 (0.0008)				0.0028 (0.0020)				-0.0013 (0.0014)				0.0005 (0.0020)		
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Director FE			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
R-squared	0.036	0.038	0.040	0.040	0.096	0.096	0.101	0.101	0.130	0.132	0.135	0.135	0.122	0.125	0.128	0.128		
Dep. Var. Mean	0.044	0.044	0.044	0.044	0.052	0.052	0.052	0.052	0.030	0.030	0.030	0.030	0.048	0.048	0.048	0.048		
Observations	153,253	153,253	153,253	153,253	62,924	62,924	62,923	62,923	47,201	47,201	47,200	47,200	42,885	42,885	42,885	42,885		
Number of projects	5,548	5,548	5,548	5,548	5,504	5,504	5,504	5,504	5,379	5,379	5,379	5,379	5,391	5,391	5,391	5,391		
Number of Directors	83	83	83	83	77	77	76	76	78	78	77	77	75	75	75	75		
Number of Bankers	816	816	816	816	526	526	526	526	437	437	437	437	288	288	288	288		
Number of Female Bankers	351	351	351	351	237	237	237	237	194	194	194	194	120	120	120	120		

Notes: Table presents results of Equation (8) on a banker-project panel of eligible bankers. The sample includes all bankers in the relevant job band (all in columns (1)-(4); band 5 in (5)-(8); band 6 in (9)-(12); and band 7 in (13)-(16)) eligible for projects. Eligibility is defined based on directorate overlap among bankers staffed on the project. The dependent variable indicates whether banker i is assigned to project j as Team Member. Its sample mean is provided in the table. Controls include performance measures and banker characteristics as defined in Equation (7) and table (3). Fixed effects include project, directorates, and years. Pooled regressions in columns (1)-(4) include job band FE. Standard errors are clustered at the banker level and shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table B.6: Are Women Worse Project Leaders?

	All bankers			Junior bankers		
	(1) Signed	(2) Time to signing	(3) Non-performing	(4) Signed	(5) Time to signing	(6) Non-performing
Woman OL	0.0079 (0.0150)	-0.0404 (0.0442)	0.0030 (0.0109)	0.0151 (0.0184)	-0.1394 (0.0939)	-0.0089 (0.0208)
Project amount	-0.0379*** (0.0055)	0.1197*** (0.0297)	-0.0071 (0.0058)	-0.0327*** (0.0070)	0.0993* (0.0526)	-0.0095 (0.0073)
Team size	0.0710*** (0.0238)	-0.0355 (0.0511)	0.0009 (0.0107)	0.0533 (0.0347)	0.0065 (0.0725)	-0.0017 (0.0197)
Equity product	-0.0686** (0.0313)	0.0113 (0.0735)	0.0500** (0.0201)	-0.0741 (0.0468)	-0.0857 (0.1696)	0.0050 (0.0397)
Repeat client	0.3677*** (0.0361)	-0.3878*** (0.0563)	-0.0476*** (0.0161)	0.3479*** (0.0444)	-0.4745*** (0.1052)	-0.0511* (0.0257)
Risk rating	-0.0208** (0.0078)	0.0456 (0.0272)	0.0345*** (0.0072)	-0.0201 (0.0163)	-0.0555 (0.0451)	0.0339** (0.0160)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0	0	0	0	0	0
Observations	6,049	3,369	3,371	1,778	1,112	1,118
Number of clusters	42	40	40	39	39	39

Notes: Table presents results from regressions estimated on a cross-section of projects taken to the FI's investment committee. The dependent variable in columns (1) and (4) indicates if a project is signed or not. The dependent variable in columns (2) and (5) is (log) time to signing. The dependent variable in columns (3) and (6) indicate, conditional on signing, if a project becomes non-performing. The sample includes all reviewed projects in columns (1) and (4), and only signed projects in other columns. Columns (1)-(3) include all projects; columns (4)-(6) include only those projects that had a junior banker as OL. Project controls are defined as in Table A.2, while Team size is total number of bankers on the project in logs. Regressions include indicators for observations with missing project amount or risk rating. Fixed effects include directorates and years. Standard errors are clustered at directorate level and shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table B.7: Are Women Assigned to Countries with Better Gender Attitudes?

	All bankers		Junior bankers	
	(1) WEF Rank	(2) WEF Value	(3) WEF Rank	(4) WEF Value
Woman OL	1.2801 (1.6366)	-0.0011 (0.0021)	-1.2418 (1.6764)	0.0026 (0.0020)
Project amount	-0.0674 (0.8006)	-0.0006 (0.0010)	-1.2635 (1.0672)	0.0006 (0.0013)
Team size	-3.6156** (1.5660)	0.0044** (0.0020)	-2.3195 (1.5277)	0.0022 (0.0018)
Equity product	-1.6075* (0.8950)	0.0021* (0.0012)	0.4469 (1.3667)	-0.0007 (0.0018)
Repeat client	-2.7764** (1.3094)	0.0052*** (0.0018)	-0.6365 (2.0311)	0.0028 (0.0025)
Risk rating	-0.8706 (0.8640)	0.0015 (0.0009)	-1.2020 (1.1909)	0.0015 (0.0013)
Controls	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes
R-squared	0	0	0	0
Observations	5,124	5,124	1,462	1,462
Number of clusters	42	42	39	39

Notes: Table presents results from regressions estimated on a cross-section of projects taken to the FI's investment committee. The dependent variable in columns (1) and (3) is the project country's global rank in the World Economic Forum (WEF) Gender Equality Index in the year that the relevant project is considered. The dependent variable in columns (2) and (4) is the project country's value for the WEF Gender Equality Index. The sample includes all reviewed projects during 2006-2018 except for countries that are not covered by the WEF index. Columns (1)-(2) include all projects; columns (3)-(4) include only those projects that had a junior banker as OL. Project controls are defined as in Table A.2, while Team size is total number of bankers on the project in logs. Regressions include indicators for observations with missing project amount or risk rating. Fixed effects include directorates and years. Standard errors are clustered at directorate level and shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table B.8: Job Applications to the Banking Division

Job Band	Hire Gender	Applicant gender			Total	Ratio Women to Men	Positions Filled
		Woman	Man	Other			
5	Woman	8,904	15,760	1,150	25,814	0.56	663
	Man	9,007	18,746	1,490	29,243	0.48	666
	Total	17,911	34,506	2,640	55,057	0.52	1,329
6	Woman	928	2,109	311	3,348	0.44	85
	Man	1,409	3,861	230	5,500	0.36	152
	Total	2,337	5,970	541	8,848	0.39	237
7	Woman	150	544	163	857	0.28	39
	Man	548	1,788	289	2,625	0.31	76
	Total	698	2,332	452	3,482	0.30	115
8	Woman	115	395	119	629	0.29	24
	Man	144	468	97	709	0.31	16
	Total	259	863	216	1,338	0.30	40

Notes: Table reports summary statistics on the gender breakdown of applications by job band and gender of hired person for the banking division of the organization. The sample covers all applications to the organization from January 2017 to June 2021. “Other” refers to applicants who preferred not to state their gender.

Table B.9: New Joiner Characteristics by Gender of First Director

	Male Director		Female Director	
	Men	Women	Men	Women
Age	29.18	28.50	28.53	29.14
Married	0.30	0.28	0.29	0.31
Child	0.18	0.11	0.16	0.15
Entry: job band 4	0.07	0.07	0.10	0.12
Entry: sector	0.49	0.48	0.36	0.50
Entry: banking	0.96	0.98	0.96	0.97
Observations	207	166	113	68

Notes: Table presents summary statistics (means) for new-joiner bankers by gender of their first director. New-joiners are defined as bankers who joined the FI in the past six months and are currently in job band 5 at one of the banking divisions. Summary statistics refer to a total of 554 new-joiners who are identified as new-joiners.

Table B.10: Time to First Team Member Assignment and Initial Director Characteristics

	(1)	(2)	(3)	(4)	(5)	(6)
Woman	1.1997*	1.5159**				
	(0.6294)	(0.6831)				
Woman × Director is female			0.1167			
			(0.6318)			
Woman × Director is male			2.4822**			
			(1.0583)			
Woman × Director is a parent				2.1919*		
				(1.1319)		
Woman × Director is not a parent				0.8730		
				(1.0751)		
Woman × Director is high flyer (p25)					0.4792	
					(1.0971)	
Woman × Director is low flyer (p25)					1.8232**	
					(0.8666)	
Woman × Director is high flyer (p33)						0.4792
						(1.0971)
Woman × Director is low flyer (p33)						1.8232**
						(0.8666)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.286	0.362	0.371	0.365	0.364	0.364
Observations	228	222	222	222	222	222
Equality of coefficients (p-value)			0.07	0.46	0.36	0.36

Notes: Table presents results of Equation (9). The dependent variable is the number of months between a banker's date of joining the organization and receiving his/her first assignment as Team Member. The sample includes the cross-section of bankers who joined the organization in job band 5, received an assignment as Team Member during the sample period, and remained with the same director during this period. High- and low-flyer definitions are based on the age distribution when a director first obtains such management responsibility (p25 = 40.25 and p33 = 41.50). Controls include Married, Child, Entry: < job band 5, Entry: sector, and Entry: banking. Fixed effects include directorates, years, and five bins of worker age. Standard errors are clustered at the director level and shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table B.11: Junior Banker Characteristics by Director Transition Event

	Event?		Male to...		Female to...	
	No	Yes	Female	Male	Female	Male
B. Banker characteristics						
Woman	0.45	0.49	0.48	0.52	0.38	0.49
Age	31.45	31.13	30.11	32.20	29.84	30.57
Length of service	2.80	2.89	2.33	3.38	2.27	2.83
Tenure in job band	26.02	25.43	22.22	28.40	26.00	21.62
Married	0.41	0.42	0.43	0.43	0.38	0.40
Child	0.26	0.28	0.27	0.33	0.11	0.25
Paid leave	0.30	0.25	0.20	0.20	0.43	0.38
Unpaid leave	0.18	0.07	0.03	0.05	0.30	0.04
Entry: job band 4	0.20	0.22	0.15	0.22	0.16	0.38
Entry: sector	0.52	0.37	0.40	0.36	0.24	0.42
Entry: banking	0.92	0.91	0.91	0.89	0.95	0.96
C. Banker performance						
Signings	2.24	2.34	1.86	2.90	1.86	1.85
Avg. amount	1.48	1.24	1.25	1.28	1.31	1.06
Signings as Operation Leader	0.50	0.46	0.31	0.63	0.35	0.30
Signings as Team Member	1.74	1.88	1.55	2.27	1.51	1.55
Avg. amount as Operation Leader	0.38	0.33	0.24	0.37	0.36	0.31
Avg. amount as Team Member	1.46	1.23	1.25	1.25	1.32	1.06
Assignments as Operation Leader	1.79	1.73	1.62	2.08	1.38	1.08
Assignments as Team Member	6.63	6.79	6.34	7.85	5.49	5.26
Assignments as Operation Leader avg amount	0.73	0.68	0.66	0.62	1.02	0.66
Assignments as Team Member avg amount	2.36	2.21	2.42	2.04	2.69	2.02
Signing ratio as Operation Leader	0.10	0.08	0.05	0.10	0.06	0.07
Signing ratio as Team Member	0.19	0.17	0.15	0.18	0.16	0.18

Notes: Table presents average characteristics for bankers experiencing a director transition event and those who have not experienced such an event during the sample period. Panel A shows the unique numbers of bankers in job band 5 who did not experience an event (column 1), who experienced an event (column 2), and who experienced an event by one of four transition types (columns 3-6). Note that bankers can experience multiple transition events; bankers who experience three or more events are excluded from this analysis. For bankers who experience an event, we calculate the average characteristic in the month of the first event. For bankers who never experience an event, we calculate the average characteristic over their tenure in job band 5.

C Survey Evidence

C.1 Questionnaire and timeline

This section provides more details on the online survey we conducted at the FI between July and August 2022. The survey was conducted in close cooperation with the FI’s staff association, which has experience with and infrastructure for surveying the staff of the FI. Further, this increased the legitimacy of and the response rate to our survey. We received responses from 1,049 staff, out of which 473 are from banking divisions. The number of responses for job band 5, 6, and 7 are 199, 130, and 79, respectively, with the remaining 65 responses coming from job bands 1-4 and 8.

We elicited information in three different broad categories: (i) demographics, (ii) job-specific information, and (iii) experiences, perceptions and behaviors that may drive the assignment gap we document. Each panel of Figure C.1 presents one battery of questions we used to investigate the related organizational determinants of the leadership assignment gap that go beyond the effect of Directors. We break them down as follows: C.1a Work Experiences, C.1b Aspirations, C.1c Perceptions on OL assignment (alternative interpretation as information frictions), C.1d Self-evaluation, and C.1e Signaling interest.

In preparation for this survey, we piloted the battery of questions on the workplace experiences in a private bank in another European country. Further information and results are reported in appendix C.4.

C.2 Results

In the following paragraphs, we provide the results of our survey for each battery of questions in two ways. First, we plot overlapping histograms for men and women to uncover potential gender differences along the whole distribution of answers. These only include the responses by junior bankers (job band 5) on which we put special emphasis. Second, we test for these differences in responses in a simple regression framework. We report our estimates separately for each of the following samples: (i) “banking”, which pools responses from all job bands in banking; (ii) “banking, job band 5”, which only reports responses from junior bankers; and (iii) “non-banking”, which pools responses from all bands in the non-banking division, if the questions are not specific to banking. Our simple regression is:

$$\text{Response}_i = \alpha + \beta_1 \text{Woman}_i + \beta_2 X_i + \varepsilon_i \quad (\text{C.1})$$

where X_i is a vector of controls for individual and organizational characteristics. Individual controls include indicators for a banker’s age group, having children, highest educational degree, and field of study. Organizational controls include indicators for tenure, current job band, division, and office location. We report estimates of β_1 , which shows how female bankers respond to various survey questions compared with male bankers, conditional on the observables included in X_i .

Workplace Experiences We first asked banking staff about how often they experienced certain types of behavior at the workplace. Figure C.2 shows the distribution of answers by men and women for the six questions included in this battery. The first two top panels show that women were more likely than men to report being portrayed in a stereotypical way and given subordinate or less interesting tasks compared to others of equal experience and ability. However, this did

not seem to translate into differences in perceptions about visibility vis-a-vis direct supervisors. The first bottom panel shows that women were marginally more likely to report than men that they were never given preference over others of equal experience and ability in the assignment of roles or tasks. We do not observe meaningful differences between junior men and women in their perceptions of expressing their opinion without fear or feeling the need to have put in greater effort.

Table C.1 reports results, in respective panels, from estimating Equation (C.1) when the dependent variable is one of these workplace experiences. Columns (1)-(3) shows results for the full sample of bankers, columns (4)-(6) focus on junior bankers only, and columns (7)-(9) report results from the sample of non-bankers. The first column in each sub-sample is a simple regression that excludes the controls X_i , the second column includes individuals controls, and the third column further adds organizational controls. In line with Figure C.2, we find that female bankers were more likely than male bankers to report being portrayed in a stereotypical way. Across the different specifications, the most robust result appears in Panel B: female bankers, and especially those in job band 5, are more likely to report that they are given subordinate or less interesting tasks compared with others of equal experience and ability. The regression analysis does not reveal any other meaningful differences between junior men and women in banking.

Aspirations It is often suggested that in many workplaces women do not share the same career aspirations as their male counterparts. We therefore asked all bankers doing our survey at the FI how important they deem different career aspirations to be. These results are shown in Figure C.3 and do not reveal gender gaps in terms of aspirations for work-life balance, earnings and pay progression, job satisfaction and stability, status / senior management position, or training and development. Men are marginally more likely to indicate earnings and pay progression as absolutely essential while some women, but virtually no men, reported this aspiration as of little or average importance.

We report results from the estimation of Equation (C.1) when the outcome is one of these aspiration variables in respective panels of Table C.2. In both the full banker sample and the sub-sample of junior bankers, there is little difference between the aspirations of men and women. Panel D suggests that women may attach less importance to earnings and pay progression than men do, but this difference disappears when we include individual and organizational controls. It is interesting to note that women in the non-banking division of the FI are more likely to attach greater importance to job satisfaction and stability, work-life balance, and training and development. Hence, although women and men may differ in their aspirations in the workplace, there can be important differences even within a single firm across its divisions. For our purposes, however, there is no indication that junior women and men in banking vary in this aspect.

Perceptions of OL Assignment The FI survey then asked bankers who were assigned at least one project as an OL to rank various attributes in terms of their importance for determining assignment to the OL position in their teams. Responses to this question by bankers in job band 5 are shown in Figure C.4. The first two top panels show that a greater share of junior women, when compared with junior men, may regard leadership skills and personal relationship with managers as carrying less importance in OL assignment. However, an estimation of gender differences in bankers' answers to these questions as in Equation (C.1) reveals no statistically significant differences (see Table C.3). Likewise, we do not find meaningful gender differences in junior bankers' responses to current workload, willingness to travel, seniority, or clear expression of OL-ship interest as

potential determinants of assignment. We also find no differences in bankers' perceptions of client relationships, seniority, relevant experience, or talent development as potential determinants of OL assignments. Note that these results hold both for the full sample of bankers and the sub-sample of junior bankers. This suggests that men and women at all levels in banking share similar perceptions of how team assignment is determined.

Self-evaluation We then asked junior bankers to evaluate their performance along several dimensions on the latest project that they worked on as an OL. Figure C.5 shows the responses by gender for each of the four aspects in which junior bankers evaluated their past performance. Both junior men and women rated their performance similarly when it came to analytical skills, communication with the organization, and preparing project documentation. However, the second panel suggests that men were more likely to rate themselves more favorably when it came to communication with clients. Again, we test for gender differences in self-evaluation more formally using Equation (C.1) and report results in Table C.4. These regression estimates reveal that while women rate themselves less positively in their communications with clients on the last project they led than men do, this difference is not statistically significant.

We also asked bankers to evaluate themselves following the latest project that they worked on as a TM. For this exercise, we restricted the sample to those bankers who have not yet been assigned a project as OL. This helps us isolate how early-career performance, which is typically achieved by completing a few projects as TM, might affect future OL assignments. Figure C.6 shows that junior women and men reported very similar levels of satisfaction on each of the four aspects they evaluated themselves. The regression analysis presented in Table C.5 confirms no discernible differences.

Signaling Interest in OL Positions Despite reporting similar levels of performance on their most recent projects, junior men and women may still differ in how strongly they push their directors to assign them the next OL role that becomes available. To understand whether junior men and women may differ along this line, we asked how actively and clearly bankers express interest in becoming an OL to their director at three points during the survey: (i) when they indicated that they were assigned at least one project as OL; (ii) after they evaluated their own performance on their most recent project as OL; and (iii) after they evaluated their own performance on their most recent project as TM. Thus, previous OLs were asked twice - in (i) and (ii) - and TMs, who have not yet led a project once - in (iii).

Figure C.7 shows how junior women and men responded at each of these three points on a continuous scale from 0 to 100. In general, bankers reported that they were extremely likely to signal their interest in becoming an OL to their supervisors, and there are no differences between junior men and women. Table C.6 shows estimates of Equation (C.1) when the dependent variable is either of these response variables. Across different specifications and samples, we do not find any gender difference in signaling interest for upcoming OL positions.

C.3 Leadership assignment gap in the survey

Finally, we confirm that the same assignment gap we find in the administrative firm records is present in the self-reported survey. To document the assignment gap in the survey, we estimate

Equation (C.1) with individual and organizational controls, and where the dependent variable is a categorical outcome that reports how many times a banker has been an OL since joining the FI. The dependent variable can take on the values from the following set: [0,1-2,3-4,5+]. Columns (1) and (6) in Table C.7 show that women report a lower category of OL assignments both in the full sample of bankers and in the sub-sample of junior bankers, respectively. Both estimates are statistically significant. However, the fact that the estimate is much larger for junior bankers suggests that the gap in assignments disappears at higher job bands following promotion from job band 5. This is in line with one of our main findings that the promotion gap exist only at the junior level and not further up the corporate hierarchy.

What is especially appealing in estimating the gender gap in assignments using survey data is that we can fully utilize the power of the survey responses in explaining this gap. Specifically, we test what happens to the gender gap in assignments when we control for each battery of questions we asked to elicit information on experiences, perceptions, and behaviors. Columns (2) and (7) show that the assignments gap becomes smaller and is no longer statistically significant when we include workplace experience variables as controls. Specifically, the variable on “tasks” stands out, and it is negatively and strongly correlated with the number of OL assignments. Hence, the gender gap in assignments in the survey data can be accounted for by the fact that female bankers – and especially junior women in job band 5 – are more likely to report being given subordinate or less interesting tasks.

It is also important to note that the inclusion of other sets of responses does little to explain the gender gap in assignments. In columns (3) and (8), we control for a set of responses aimed to proxy bankers’ career aspirations. While there is some evidence that bankers who attach greater importance to earnings and pay progression have also received more OL assignments, the coefficient on the Woman dummy barely changes. In columns (4) and (9), we instead control for variables that capture bankers’ beliefs about what determines assignment to OL positions. In columns (5) and (10), we include bankers’ self-evaluation responses. None of these variables seem to have an explanatory power and they leave the assignment gap unexplained.

C.4 Pilot survey

In early 2022, Friebel and Stahl piloted most of the work environment questions of our survey in a private bank in Europe. Figure C.8 shows the results which are remarkably similar to the ones in our FI (Figure C.2). Table C.8 confirms that these patterns are indeed statistically significant and hold up when controlling for individual (age and parent indicators) and organizational (tenure and customer contact indicators) controls. In particular women report to be stereotyped, given subordinate tasks and holding back their opinion more frequently than men. Interestingly, the results in the pilot survey are present among junior and senior groups of employees and even stronger for more senior employees.

Figure C.1: Survey Questionnaire

(a) Work Experiences

Please indicate how often you have experienced the following in the work environment:

	Never	Once	Several Times	Regularly
I was portrayed in a stereotypical way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was given subordinate or less interesting tasks compared to others of equal experience and ability.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I had good visibility with my direct supervisor(s) compared to others of equal experience and ability.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was given preference over others of equal experience and ability in the assignment of roles and/or tasks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I held back expressing my opinion because I feared either not being listened to or receiving a dismissive response.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I had a sense that I should have put more effort into my work to achieve the best possible outcome.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) Aspirations

Which of the following career aspirations are most important to you (on a scale of 1=not important, 5=absolutely essential), using each only once.

	1 - not important	2 - of little importance	3 - of average importance	4 - very important	5 - absolutely essential
Status/ a position of senior management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Job satisfaction and stability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work-life balance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Earnings and pay progression	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Training and development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(c) Perceptions of OL Assignment

Which of the following attributes, according to your opinion and experience, are important for assignment to OL-ship in your team?
 (Please number each box in order of preference from 1 to 10, whereby 1 is the highest and 10 is the lowest and using each only once.)

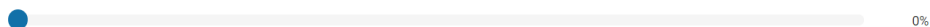
	1	2	3	4	5	6	7	8	9	10
Technical skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leadership skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal relationship with manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Relevant sector or country experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Current workload	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Willingness to travel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Client relationship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seniority	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clear expression of interest to become the OL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Talent development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(d) Self-evaluation

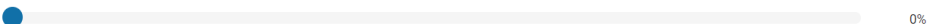
In your opinion, how well did you perform on the last projects you did as an OL in terms of (1=poor; 5=excellent):					In your opinion, how well did you perform on the last projects you did as a TM in terms of (1=poor; 5=excellent):				
1 - poor	2 - fair	3 - good	4 - very good	5 - excellent	1 - poor	2 - fair	3 - good	4 - very good	5 - excellent
Analytical skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Analytical skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication with clients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Communication with clients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication within the Bank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Communication within the Bank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Preparing project documentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preparing project documentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(e) Signaling Interest

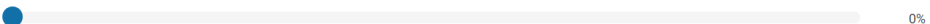
Imagine there is a project that you would like to be the OL of and believe you are qualified to do so. On a scale of 0 to 100 (where 0 is not likely at all and 100 is extremely likely) how likely are you to actively and clearly express your interest in the OL-ship to your supervisor (s)? Respondents need to drag the blue circle to the right to indicate the relevant percentage.



On a scale of 0 to 100 (where 0 is not likely at all and 100 is extremely likely) how likely are you to express your interest to be an OL for a project that matches your skills and knowledge? Respondents need to drag the blue circle to the right to indicate the relevant percentage.

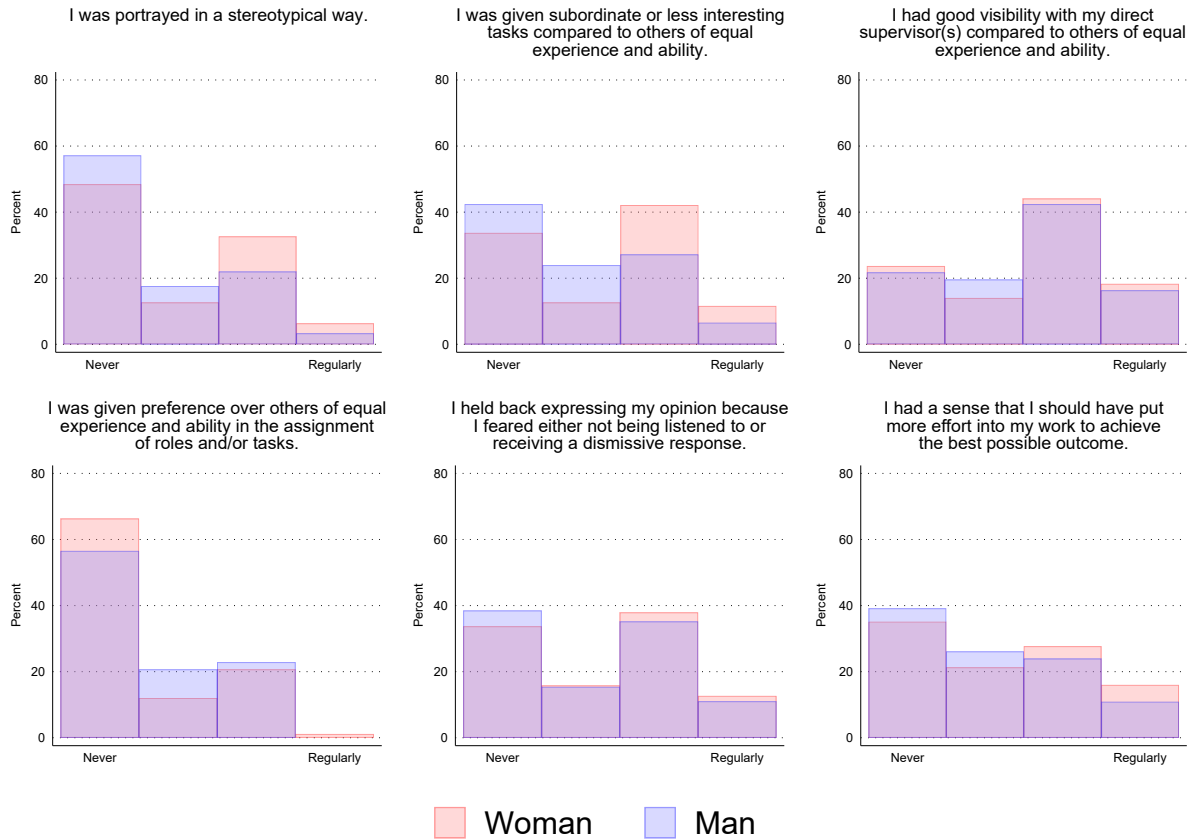


How likely is it that you would clearly express your interest to be an OL for a project with a similar requirement of skills and knowledge? Respondents need to drag the blue circle to the right to indicate the relevant percentage.



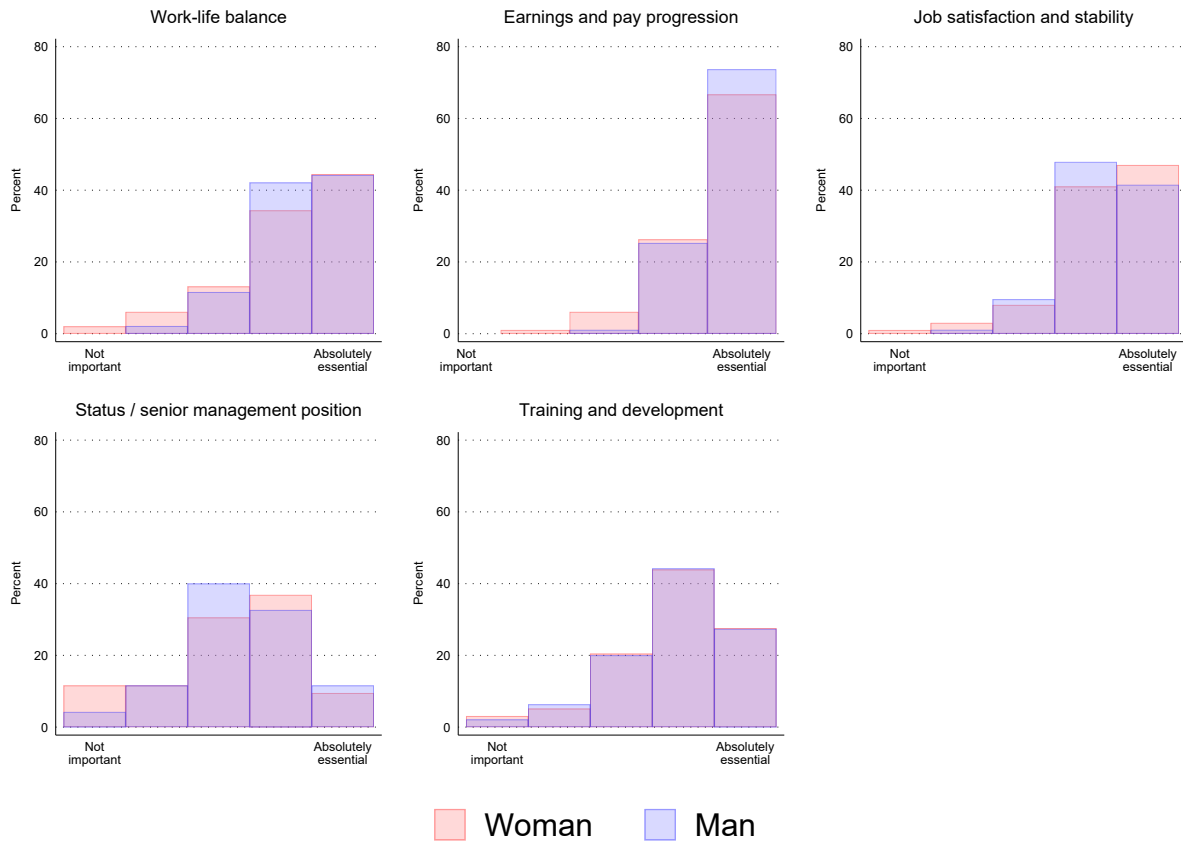
Notes: Figure provides snapshots of our original survey questions as presented to the employees of the FI. Additional text and explanations in between are omitted due to confidentiality.

Figure C.2: Junior Bankers' Perceptions of the Work Environment



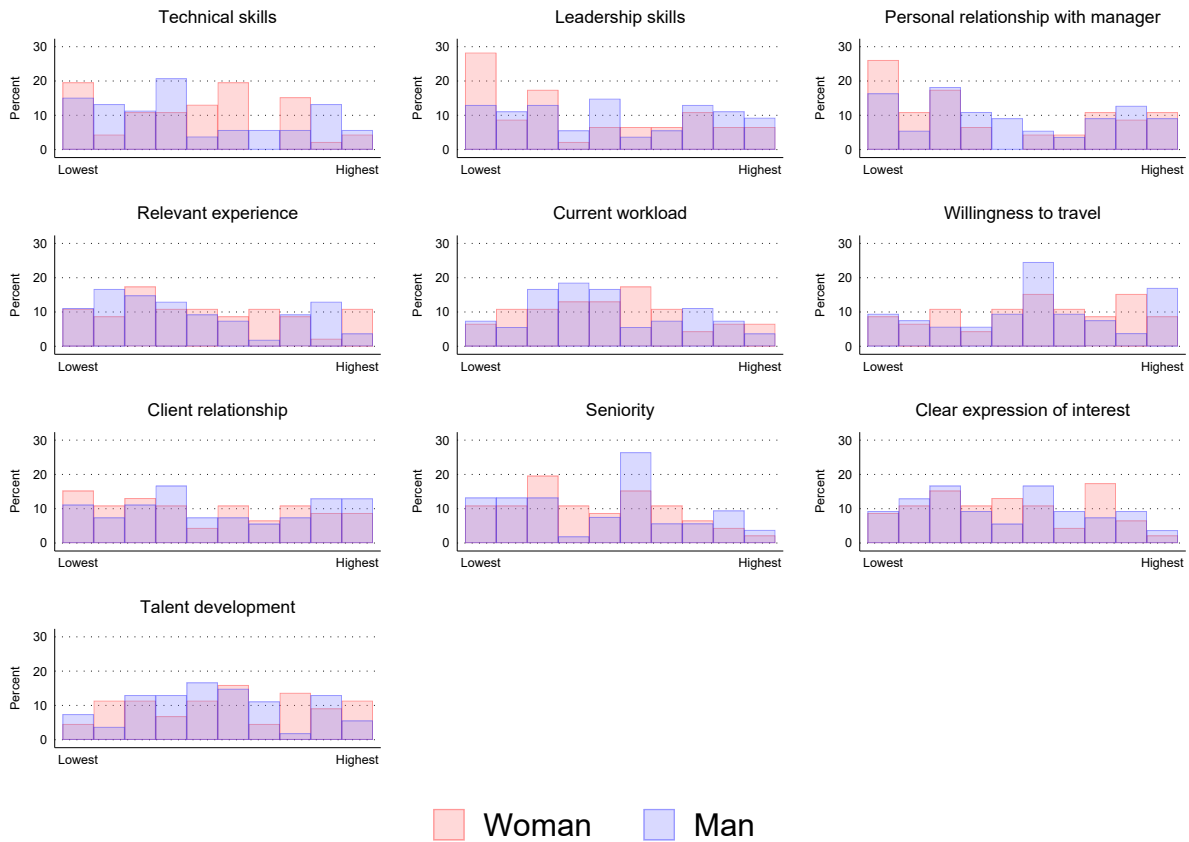
Notes: Figure shows results of the survey conducted at the FI. Responses by banking staff at job band 5 are shown.

Figure C.3: Junior Bankers' Aspirations



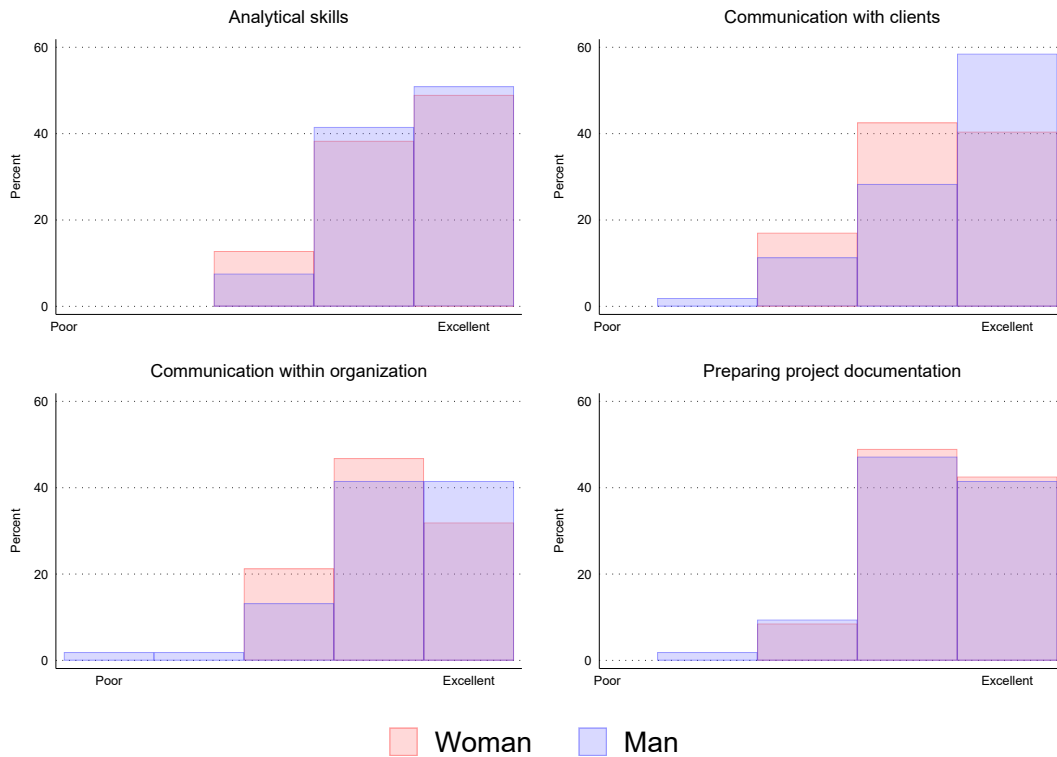
Notes: Figure shows results of the survey conducted at FI. Responses by banking staff at job band 5 are shown.

Figure C.4: Junior Bankers' Perceptions of OL Assignment



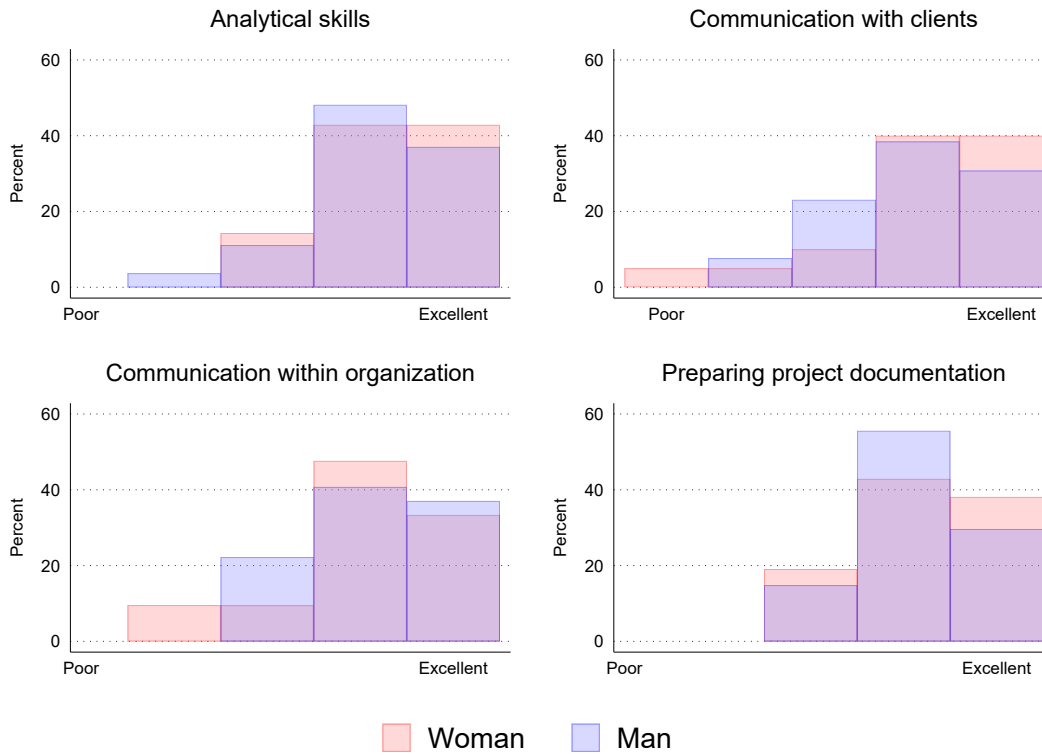
Notes: Figure shows results of the survey conducted at FI. Responses by banking staff at job band 5 who have been assigned at least one project as OL are shown.

Figure C.5: Junior Bankers' Self-evaluation of Their Last OL-ship



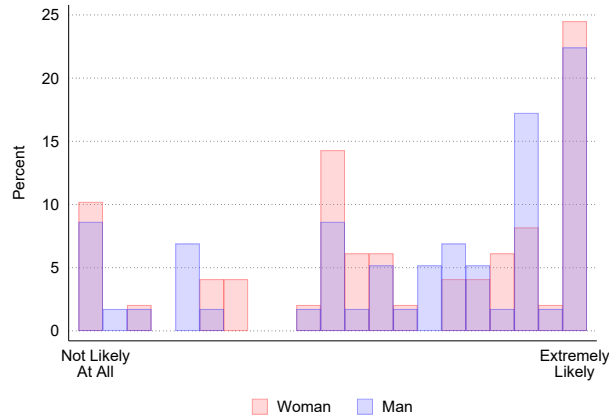
Notes: Figure shows results of the survey conducted at FI. Responses by banking staff at job band 5 who have been assigned at least one project as OL are shown.

Figure C.6: Junior Bankers' Self-evaluation of Their Last TM-ship

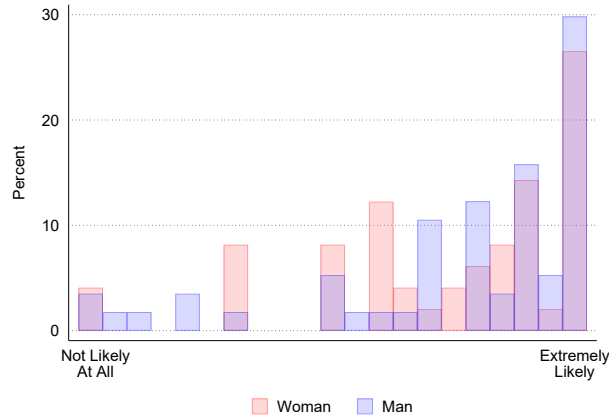


Notes: Figure shows results of the survey conducted at FI. Responses by banking staff at job band 5 who have been assigned at least one project as TM but not yet assigned a project as OL are shown.

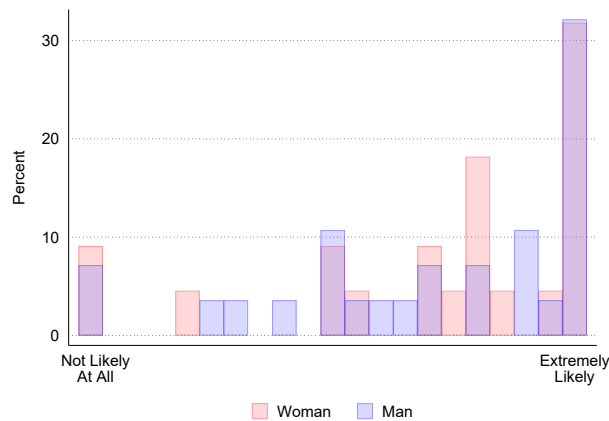
Figure C.7: Junior Bankers' Signaling of Interest in OL positions



(a) Active and clear signaling to supervisor



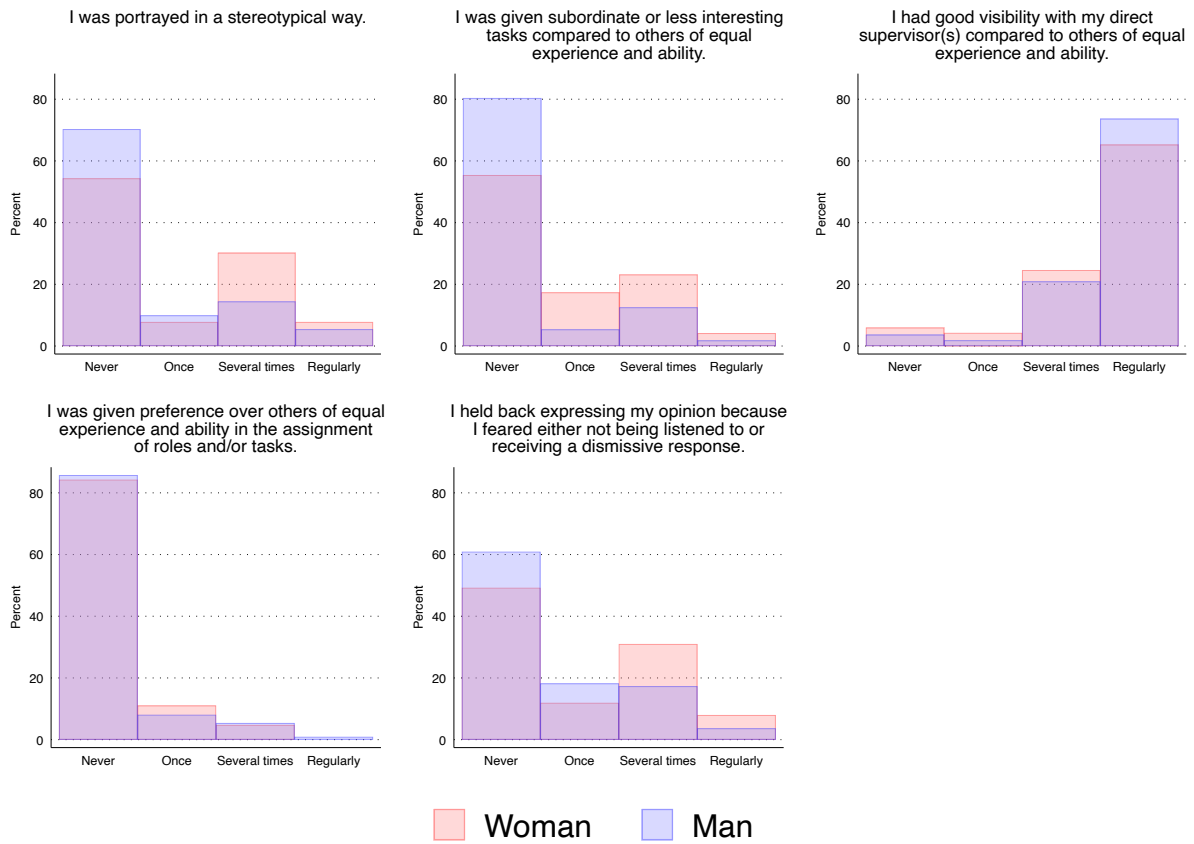
(b) Signaling after self-evaluation as OL



(c) Signaling after self-evaluation as TM

Notes: Responses by banking staff at job band 5 who have been assigned at least one project as OL are shown in panels (a) and (b) and by banking staff at job band 5 who have been assigned at least one project as TM but not yet assigned a project as OL in panel (c).

Figure C.8: Perceptions of the Work Environment in a Private Bank



Notes: Figure shows results of the survey conducted at a European private bank.

Table C.1: Perceptions of the Work Environment

	Banking			Banking - job band 5			Non-banking		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A	<i>Stereotype</i>								
Woman	0.3081*** (0.0989)	0.3074*** (0.1055)	0.3110*** (0.1119)	0.2647* (0.1377)	0.2714* (0.1589)	0.1394 (0.1764)	0.1565 (0.1088)	0.1268 (0.1131)	0.1136 (0.1189)
R-squared	0.023	0.057	0.152	0.017	0.077	0.176	0.005	0.066	0.182
Observations	418	418	418	212	212	212	394	394	394
Panel B	<i>Given subordinate or less interesting tasks</i>								
Woman	0.2905*** (0.1014)	0.3647*** (0.1094)	0.3660*** (0.1144)	0.2733* (0.1418)	0.4309** (0.1667)	0.4333** (0.1717)	0.0250 (0.1062)	0.0180 (0.1086)	0.0044 (0.1138)
R-squared	0.019	0.066	0.161	0.017	0.101	0.237	0.000	0.060	0.160
Observations	420	420	420	213	213	213	394	394	394
Panel C	<i>Visibility with direct supervisor</i>								
Woman	0.0159 (0.1025)	-0.0352 (0.1064)	0.0073 (0.1133)	0.1014 (0.1454)	0.0924 (0.1713)	0.0538 (0.1880)	-0.2529** (0.1182)	-0.2562** (0.1253)	-0.2516* (0.1388)
R-squared	0.000	0.053	0.118	0.002	0.062	0.202	0.012	0.048	0.112
Observations	417	417	417	208	208	208	386	386	386
Panel D	<i>Preference given over others</i>								
Woman	0.0026 (0.0887)	-0.0417 (0.0910)	-0.0312 (0.0948)	-0.0281 (0.1199)	-0.1077 (0.1261)	-0.0841 (0.1268)	-0.0633 (0.0904)	-0.0940 (0.0965)	-0.0638 (0.1022)
R-squared	0.000	0.071	0.139	0.000	0.153	0.284	0.001	0.022	0.139
Observations	415	415	415	209	209	209	386	386	386
Panel E	<i>Held back opinion</i>								
Woman	0.1547 (0.1069)	0.1951* (0.1139)	0.1792 (0.1194)	0.1403 (0.1488)	0.1914 (0.1690)	0.1374 (0.1939)	0.1280 (0.1125)	0.1605 (0.1182)	0.1399 (0.1294)
R-squared	0.005	0.047	0.135	0.004	0.036	0.166	0.003	0.056	0.138
Observations	423	423	423	212	212	212	395	395	395
Panel F	<i>Effort</i>								
Woman	0.1492 (0.1047)	0.1807 (0.1132)	0.1335 (0.1182)	0.2059 (0.1499)	0.2278 (0.1715)	0.0791 (0.1738)	0.1523 (0.1048)	0.1007 (0.1076)	0.0553 (0.1167)
R-squared	0.005	0.051	0.168	0.009	0.074	0.259	0.005	0.101	0.143
Observations	420	420	420	210	210	210	385	385	385
Individual controls		Yes	Yes		Yes	Yes		Yes	Yes
Organizational controls			Yes			Yes			Yes

Notes: Table presents results of Equation (C.1). The dependent variable in each panel is derived from responses to questions on the workplace environment in the FI survey. Sample includes all staff in banking in columns (1)-(3), all job band 5 staff in banking in columns (4)-(6), and all staff in non-banking in columns (7)-(9). Individual controls include indicators for a banker's age group, having children or not, highest educational degree, and field of study. Organizational controls include indicators for tenure, current job band, division, and office location. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table C.2: Aspirations

	Banking			Banking - job band 5			Non-banking		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A	<i>Status / a position of senior management</i>								
Woman	-0.1588 (0.1084)	-0.0942 (0.1134)	0.0028 (0.1137)	-0.2036 (0.1475)	-0.0386 (0.1674)	0.0352 (0.1699)	-0.1397 (0.1054)	-0.1277 (0.1123)	-0.1332 (0.1159)
R-squared	0.005	0.063	0.146	0.009	0.133	0.258	0.004	0.071	0.166
Observations	430	430	430	215	215	215	415	415	415
Panel B	<i>Job satisfaction and stability</i>								
Woman	0.0090 (0.0729)	0.0024 (0.0775)	0.0058 (0.0796)	0.0153 (0.1006)	-0.0819 (0.1233)	-0.0625 (0.1210)	0.1550** (0.0667)	0.1471** (0.0710)	0.1683** (0.0753)
R-squared	0.000	0.044	0.115	0.000	0.110	0.247	0.013	0.040	0.097
Observations	434	434	434	220	220	220	416	416	416
Panel C	<i>Work-life balance</i>								
Woman	0.0185 (0.0870)	-0.0249 (0.0940)	-0.0181 (0.0987)	-0.0900 (0.1150)	-0.2178 (0.1380)	-0.1783 (0.1463)	0.1653** (0.0768)	0.1597** (0.0788)	0.1297 (0.0831)
R-squared	0.000	0.048	0.099	0.003	0.142	0.231	0.011	0.070	0.122
Observations	429	429	429	220	220	220	415	415	415
Panel D	<i>Earnings and pay progression</i>								
Woman	-0.1132* (0.0643)	-0.0627 (0.0669)	-0.0909 (0.0708)	-0.1495** (0.0739)	-0.1288 (0.0841)	-0.1347 (0.0891)	0.0066 (0.0679)	-0.0015 (0.0752)	-0.0356 (0.0800)
R-squared	0.007	0.078	0.142	0.018	0.116	0.198	0.000	0.054	0.115
Observations	435	435	435	220	220	220	417	417	417
Panel E	<i>Training and development</i>								
Woman	0.1382 (0.0970)	0.2353** (0.1030)	0.2509** (0.1030)	0.0601 (0.1312)	0.1217 (0.1495)	0.2208 (0.1574)	0.2091** (0.0961)	0.2121** (0.1037)	0.2555** (0.1090)
R-squared	0.005	0.043	0.134	0.001	0.047	0.183	0.011	0.047	0.138
Observations	434	434	434	219	219	219	416	416	416
Individual controls		Yes	Yes		Yes	Yes		Yes	Yes
Organizational controls			Yes			Yes			Yes

Notes: Table presents results of Equation (C.1). The dependent variable in each panel is derived from responses to questions on aspirations in the FI survey. Sample includes all staff in banking in columns (1)-(3), all job band 5 staff in banking in columns (4)-(6), and all staff in non-banking in columns (7)-(9). Individual controls include indicators for a banker's age group, having children or not, highest educational degree, and field of study. Organizational controls include indicators for tenure, current job band, division, and office location. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table C.3: Perceptions of OL Assignment

	Banking			Banking - job band 5		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A	<i>Technical skills</i>					
Woman	0.2173 (0.3684)	0.4304 (0.3848)	0.5159 (0.4160)	-0.0826 (0.5625)	0.1039 (0.6422)	0.2080 (0.7273)
R-squared	0.001	0.066	0.140	0.000	0.169	0.415
Observations	257	257	257	101	101	101
Panel B	<i>Leadership skills</i>					
Woman	0.1000 (0.4173)	0.1862 (0.4318)	0.2585 (0.4657)	-0.9379 (0.6206)	-1.2622* (0.6754)	-1.0447 (0.7614)
R-squared	0.000	0.053	0.149	0.022	0.208	0.513
Observations	261	261	261	102	102	102
Panel C	<i>Personal relationship with manager</i>					
Woman	-0.2542 (0.3967)	-0.4600 (0.4082)	-0.3889 (0.4338)	-0.4172 (0.6402)	-0.6156 (0.7284)	-0.6285 (0.7652)
R-squared	0.002	0.052	0.137	0.004	0.078	0.372
Observations	261	261	261	103	103	103
Panel D	<i>Relevant sector or country experience</i>					
Woman	0.5391 (0.3805)	0.5543 (0.3972)	0.5670 (0.4135)	0.2399 (0.5644)	0.1179 (0.6357)	0.3442 (0.6898)
R-squared	0.008	0.067	0.168	0.002	0.113	0.346
Observations	259	259	259	102	102	102
Panel E	<i>Current workload</i>					
Woman	0.3941 (0.3383)	0.2806 (0.3475)	0.3417 (0.3816)	0.0311 (0.5016)	-0.2100 (0.5565)	-0.0084 (0.6027)
R-squared	0.005	0.055	0.113	0.000	0.116	0.369
Observations	260	260	260	102	102	102
Panel F	<i>Willingness to travel</i>					
Woman	-0.2018 (0.3717)	-0.2265 (0.3922)	-0.1785 (0.4173)	-0.0941 (0.5621)	-0.1383 (0.6230)	0.1367 (0.6498)
R-squared	0.001	0.027	0.096	0.000	0.082	0.298
Observations	254	254	254	101	101	101
Panel G	<i>Client relationship</i>					
Woman	0.3224 (0.3932)	0.4370 (0.4081)	0.4810 (0.4297)	-0.4744 (0.6090)	-0.7221 (0.7069)	-0.7175 (0.7130)
R-squared	0.003	0.076	0.178	0.006	0.103	0.437
Observations	259	259	259	102	102	102
Panel H	<i>Seniority</i>					
Woman	0.0256 (0.3303)	-0.0630 (0.3385)	-0.0694 (0.3670)	-0.2676 (0.5154)	-0.6067 (0.5749)	-0.6817 (0.5925)
R-squared	0.000	0.041	0.157	0.003	0.065	0.320
Observations	258	258	258	101	101	101
Panel I	<i>Clear expression of interest to become the OL</i>					
Woman	0.0037 (0.3227)	0.0421 (0.3326)	0.0516 (0.3635)	0.0357 (0.5216)	0.0710 (0.5928)	-0.0576 (0.6933)
R-squared	0.000	0.037	0.131	0.000	0.072	0.309
Observations	260	260	260	102	102	102
Panel J	<i>Talent development</i>					
Woman	0.1305 (0.3322)	0.1252 (0.3406)	0.2980 (0.3641)	0.3084 (0.5409)	0.0052 (0.6070)	0.2637 (0.6653)
R-squared	0.001	0.059	0.150	0.003	0.123	0.320
Observations	255	255	255	100	100	100
Individual controls		Yes	Yes		Yes	Yes
Organizational controls			Yes			Yes

Notes: Table presents results of Equation (C.1). The dependent variable in each panel is derived from responses to questions on perceptions of what determines assignment to OL positions in the FI survey. Sample is restricted to staff who were assigned at least one project as OL in banking in columns (1)-(3) and to job band 5 staff in banking who were assigned at least one project as OL in columns (4)-(6). Individual controls include indicators for a banker's age group, having children or not, highest educational degree, and field of study. Organizational controls include indicators for tenure, current job band, division, and office location. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table C.4: Self-evaluation of Last OL-ship at FI

	Banking			Banking - job band 5		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A	<i>Analytical skills</i>					
Woman	0.0256 (0.0814)	0.0499 (0.0851)	0.0514 (0.0926)	-0.0928 (0.1336)	-0.0856 (0.1500)	-0.0518 (0.1568)
R-squared	0.000	0.040	0.175	0.005	0.071	0.365
Observations	260	260	260	102	102	102
Panel B	<i>Communication with clients</i>					
Woman	-0.0449 (0.0860)	-0.0342 (0.0914)	-0.0384 (0.0971)	-0.2205 (0.1481)	-0.2273 (0.1756)	-0.1645 (0.2014)
R-squared	0.001	0.074	0.166	0.022	0.080	0.301
Observations	260	260	260	102	102	102
Panel C	<i>Communication within the organisation</i>					
Woman	0.0353 (0.0917)	0.0173 (0.0938)	0.0189 (0.0984)	-0.1118 (0.1589)	-0.1775 (0.1755)	-0.2434 (0.1855)
R-squared	0.001	0.057	0.164	0.005	0.076	0.360
Observations	260	260	260	102	102	102
Panel D	<i>Preparing project documentation</i>					
Woman	0.0641 (0.0827)	0.0512 (0.0851)	0.0366 (0.0964)	0.0313 (0.1339)	0.0497 (0.1426)	-0.0187 (0.1407)
R-squared	0.002	0.080	0.164	0.001	0.145	0.394
Observations	260	260	260	102	102	102
Individual controls		Yes	Yes		Yes	Yes
Organizational controls			Yes			Yes

Notes: Table presents results of Equation (C.1). The dependent variable in each panel is derived from responses to questions on how well bankers think they did in their last project as OL in the FI survey. Sample is restricted to staff who were assigned at least one project as OL in banking in columns (1)-(3) and to job band 5 staff in banking who were assigned at least one project as OL in columns (4)-(6). Individual controls include indicators for a banker's age group, having children or not, highest educational degree, and field of study. Organizational controls include indicators for tenure, current job band, division, and office location. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table C.5: Self-evaluation of Last TM-ship at FI

	Banking			Banking - job band 5		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A	<i>Analytical skills</i>					
Woman	0.1039 (0.1939)	0.2518 (0.2435)	-0.1242 (0.2585)	0.0714 (0.2157)	0.0739 (0.2907)	-0.3107 (0.2792)
R-squared	0.004	0.156	0.552	0.002	0.103	0.516
Observations	64	64	64	49	49	49
Panel B	<i>Communication with clients</i>					
Woman	0.0864 (0.2656)	-0.0007 (0.3347)	0.0242 (0.5204)	0.0870 (0.3047)	-0.0502 (0.4042)	-0.0654 (0.7316)
R-squared	0.002	0.166	0.449	0.002	0.121	0.459
Observations	62	62	62	47	47	47
Panel C	<i>Communication within the organisation</i>					
Woman	0.0085 (0.2210)	-0.1683 (0.2704)	-0.2165 (0.3815)	-0.1310 (0.2480)	-0.2345 (0.3196)	-0.2370 (0.5300)
R-squared	0.000	0.113	0.423	0.006	0.050	0.394
Observations	64	64	64	49	49	49
Panel D	<i>Preparing project documentation</i>					
Woman	0.1198 (0.1879)	0.1681 (0.2126)	-0.3034 (0.2635)	0.0119 (0.2066)	0.0265 (0.2584)	-0.4298 (0.2987)
R-squared	0.007	0.130	0.491	0.000	0.039	0.520
Observations	64	64	64	49	49	49
Individual controls		Yes	Yes		Yes	Yes
Organizational controls			Yes			Yes

Notes: Table presents results of Equation (C.1). The dependent variable in each panel is derived from responses to questions on how well bankers think they did in their last project as TM in the FI survey. Sample is restricted to staff who were assigned at least one project as TM but not yet assigned a project as OL in banking in columns (1)-(3) and to job band 5 staff in banking who were assigned at least one project as TM but not yet assigned a project as OL in columns (4)-(6). Individual controls include indicators for a banker's age group, having children or not, highest educational degree, and field of study. Organizational controls include indicators for tenure, current job band, division, and office location. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table C.6: Signaling Interest in OL Positions at FI

	Banking			Banking - job band 5		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A	<i>Signaling interest in OL-ship</i>					
Woman	-2.1936 (4.1065)	-2.4773 (4.0359)	-0.1022 (4.1561)	-1.4830 (6.4285)	-0.2691 (6.4724)	0.8302 (7.6975)
R-squared	0.001	0.083	0.210	0.000	0.193	0.320
Observations	283	283	283	109	109	109
Panel B	<i>Signaling interest after self-evaluation as OL</i>					
Woman	-2.3036 (3.7034)	-2.5323 (3.8121)	-1.3229 (4.0370)	-2.8502 (5.2774)	-4.0332 (5.7680)	-4.0688 (7.1823)
R-squared	0.001	0.068	0.181	0.003	0.107	0.219
Observations	278	278	278	108	108	108
Panel C	<i>Signaling interest after self-evaluation as TM</i>					
Woman	13.6944 (8.6814)	14.9658* (8.0291)	15.1700 (11.9040)	0.2038 (8.8226)	11.8162 (8.3390)	9.3504 (11.5283)
R-squared	0.032	0.356	0.610	0.000	0.291	0.606
Observations	69	69	69	51	51	51
Individual controls		Yes	Yes		Yes	Yes
Organizational controls			Yes			Yes

Notes: Table presents results of Equation (C.1). The dependent variable in each panel is derived from responses to questions on how actively and clearly bankers express interest in becoming an OL on an upcoming project in the FI survey. In panels A and B, sample is restricted to staff who were assigned at least one project as OL in banking in columns (1)-(3) and to job band 5 staff in banking who were assigned at least one project as OL in columns (4)-(6). In panel C, sample is restricted to staff who were assigned at least one project as TM but not yet assigned a project as OL in banking in columns (1)-(3) and to job band 5 staff in banking in columns (4)-(6). Individual controls include indicators for a banker's age group, having children or not, highest educational degree, and field of study. Organizational controls include indicators for tenure, current job band, division, and office location. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table C.7: The Leadership Assignment Gap in the FI Survey

	Banking					Banking - job band 5				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Woman	-0.1834*	-0.1610	-0.1970*	-0.1517*	-0.1605*	-0.5331**	-0.3391	-0.5502**	-0.5224***	-0.4657**
Stereotype	(0.0982)	(0.1140)	(0.1021)	(0.0915)	(0.0881)	(0.2176)	(0.2489)	(0.2290)	(0.1895)	(0.2096)
Tasks		0.0274					-0.0194			
Visibility		(0.0620)					(0.1239)			
Preference		-0.1557***					-0.3029**			
Opinion		(0.0555)					(0.1337)			
Effort		0.0181					0.0703			
Status		(0.0535)					(0.1102)			
Satisfaction		0.0887	0.0142				0.1547	0.0232		
Balance		(0.0606)	(0.0539)				(0.1446)	(0.1107)		
Earnings		0.0847	-0.0325				0.2478**	-0.1176		
Training		(0.0536)	(0.0819)				(0.1203)	(0.1759)		
Technical skills		-0.0303	-0.0372	-0.0049			-0.0108	-0.0441		
Leadership skills		(0.0514)	(0.0625)	(0.0271)			(0.1434)	(0.1205)		
Personal relationship with manager			0.1395*	0.0222				0.2930*		
Relevant sector or country experience			(0.0776)	(0.0239)				(0.1719)		
Current workload			0.0252	0.0222				0.1434		
Willingness to travel			(0.0580)	(0.0239)				(0.1194)		
Client relationship				-0.0163						
Seniority				(0.0164)						
Clear expression of interest				-0.0127						
Talent development				(0.0276)						
Analytical skills				-0.0220						
Communication with clients				(0.0205)						
Communication within organization				-0.0015						
Preparing project documentation				(0.0152)						
Individual controls	Yes	Yes	Yes	-0.0186	0.0241	Yes	Yes	Yes	Yes	Yes
Organizational controls	Yes	Yes	Yes	(0.0223)	(0.0805)	Yes	Yes	Yes	Yes	Yes
R-squared	0.530	0.552	0.547	(0.0663)	(0.1794)	0.379	0.417	0.416	0.574	0.514
N	303	274	288	(0.0663)	(0.1639)	133	118	127	96	102
				(0.0542)	(0.2069)					
				0.0646	(0.0693)					
				(0.0221)						

Notes: Table presents results of Equation (C.1). The dependent variable is a categorical outcome that captures how many times a banker has been an OL since joining the FI, taking on values 0, 1-2, 3-4, or 5+. Sample includes staff eligible for an OL-ship in banking for all job bands in columns (1)-(5) and job band 5 only in columns (6)-(10). Columns (2) and (7) include explanatory variables based on responses to questions on the workplace environment; (3) and (8) on aspirations; (4) and (9) on perceptions of what determines OL assignment; and (5) and (10) on how well bankers think they did in their last project as OL. Individual controls include indicators for a banker's age group, having children or not, highest educational degree, and field of study. Organizational controls include indicators for tenure, current job band, division, and office location. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table C.8: Perceptions of the Work Environment in a Private Bank

	All			Senior position			Junior position		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A	<i>Stereotype</i>								
Woman	0.3513*** (0.1335)	0.3929*** (0.1370)	0.4258*** (0.1475)	1.1866*** (0.2798)	0.9961** (0.3689)	1.0491** (0.3992)	0.3762*** (0.1406)	0.4493*** (0.1443)	0.4252** (0.1643)
R-squared	0.030	0.047	0.053	0.232	0.271	0.291	0.038	0.098	0.097
N	228	218	211	45	43	42	167	163	158
Panel B	<i>Given subordinate or less interesting tasks</i>								
Woman	0.3975*** (0.1125)	0.4158*** (0.1123)	0.4127*** (0.1190)	1.0810*** (0.2691)	0.9133*** (0.2898)	0.9838*** (0.3150)	0.3194** (0.1327)	0.3501** (0.1370)	0.3470** (0.1478)
R-squared	0.050	0.094	0.107	0.385	0.428	0.455	0.031	0.084	0.103
N	234	226	219	44	43	42	174	171	166
Panel C	<i>Visibility with direct supervisor</i>								
Woman	-0.1571 (0.1013)	-0.1324 (0.1004)	-0.1108 (0.1073)	-0.0312 (0.1482)	-0.0369 (0.1926)	-0.0741 (0.2014)	-0.1838 (0.1236)	-0.1896 (0.1198)	-0.1484 (0.1325)
R-squared	0.010	0.037	0.041	0.001	0.083	0.159	0.012	0.055	0.065
N	229	223	215	44	43	42	171	169	164
Panel D	<i>Preference given over others</i>								
Woman	-0.0165 (0.0707)	-0.0276 (0.0769)	-0.0563 (0.0828)	-0.4000** (0.1712)	-0.4862* (0.2489)	-0.5387* (0.2897)	0.1053 (0.0711)	0.1209 (0.0737)	0.1028 (0.0763)
R-squared	0.000	0.043	0.073	0.067	0.201	0.277	0.011	0.104	0.132
N	240	230	224	45	43	42	178	174	171
Panel E	<i>Held back opinion</i>								
Woman	0.3456*** (0.1271)	0.3278*** (0.1255)	0.2589* (0.1330)	0.5548* (0.2998)	0.6322* (0.3372)	0.4718 (0.3389)	0.4012*** (0.1439)	0.3762** (0.1477)	0.2527 (0.1586)
R-squared	0.030	0.072	0.107	0.081	0.237	0.311	0.039	0.077	0.131
N	237	229	221	46	44	43	177	174	169
Individual controls	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Organizational controls	No	No	Yes	No	No	Yes	No	No	Yes

Notes: Table presents results of a version of Equation (C.1) adapted to the private bank where we ran our pilot. The dependent variable in each panel is derived from responses to questions on the workplace environment in the survey. Sample includes all staff in in our private pilot bank in columns (1)-(3), all staff holding senior positions in columns (4)-(6), and all staff in junior positions in columns (7)-(9). Individual controls include indicators for a banker's age group, and having children or not. Organizational controls include indicators for tenure and having customer contact. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

D Director Transition

To exploit quasi-random variation in directors' gender we use director rotations as in [Cullen and Perez-Truglia \(2023\)](#) and [Minni \(2023\)](#). There are four possible transition types in directors' gender: from woman to woman (W2W), woman to man (W2M), man to man (M2M), man to woman (M2W). Rotations hold constant all factors potentially correlated with junior bankers' unobserved ability and task assignment.

Sample There are 362 bankers who experience on job band 5 exactly one manager or two transition events. We exclude bankers who experience three or more transitions.²¹ As in [Minni \(2023\)](#), we only consider the first manager transition that a banker experiences in the data and track their outcomes regardless of future manager transitions while he/she is still in job band 5. Out of the 362 unique (first transition) events, affecting 362 unique junior bankers (45% women) and involving 85 unique directors, 41 are W2W, 58 are W2M, 165 are M2M, and 98 are M2W transitions.²²

The typical case of rotation – 248 out of 362, or 69% of all events – is when directors are reassigned across entire teams, so that all bankers in that team experience the same transition. Junior bankers cannot influence these events, for instance, when a director is promoted (14 out of 85 directors), transferred to another directorate (49 out of 85 directors), or leaves the firm (22 out of 85 directors). The remaining cases are worker transfers that occur typically due to reorganizations of teams and occasionally if a banker changes office locations or if he/she requests a transfer within the same location.²³

Table [B.11](#) provides descriptive statistics for bankers by transition event type. Our identification strategy only requires that trajectories of outcomes are parallel (as discussed later). We still include this for informational purposes. Half of all junior bankers experience a director transition. Columns (1)-(2) show that they are similar in terms of most characteristics and performance at the time of an event to bankers who do not experience an event.²⁴

Identification We estimate the following event study:

$$\begin{aligned} \text{Assignments}_{i,t} = & \sum_{j \in J} \sum_{s \in S} \beta_{s,j}^W \times \text{Woman}_i \times D_{i,t+s}^j + \sum_{j \in J} \sum_{s \in S} \beta_{s,j}^M \times (1 - \text{Woman}_i) \times D_{i,t+s}^j \\ & + \alpha_i + \gamma_{i,t}^D + \delta_t^W + \delta_t^M + \eta X_{i,t} + \epsilon_{i,t}, \end{aligned} \quad (\text{D.1})$$

²¹These bankers have typically joined the FI on a two-year entry-level graduate program in which rotations occur every six months. There are also a few directorates that underwent several rounds of restructuring during the sample period.

²²Figure [B.2](#) shows that director transitions of all types occur more or less equally throughout the year; figure [B.3](#) shows that they are independent of the FI's promotion cycle for junior bankers.

²³In interviews we were told that reorganizations occur when teams naturally grow over time and are split up between two directors and re-named; usually, the original director remains and a new director is appointed to lead the new, second team.

²⁴Both groups have almost equal representation of men and women with an average age of 31, 2.8 years of service. 26 to 28% are parents. Bankers with events are less likely to have gone on maternity leave or joined the FI in a sector directorate. Bankers who experienced a M2M transition had longer tenure at the event time. They therefore had slightly more signings than bankers who experienced other transition types, although their signing ratios both as OL and TM are comparable.

where $s = [-8, \dots, -3, -2, 0, 1, 2, \dots, 8]$ denotes quarters around the director transition event and $j = [W2M, W2W, M2W, M2M]$ denotes director transition types. Data are at the monthly level, but we report quarterly coefficients to simplify the exposition. The omitted time category, $s = -1$, corresponds to the three months immediately preceding a transition event, and $s = 0$ denotes the three months from the transition event onward. The event study window thus spans from 24 months before the event to 27 months after the event (including the event month).²⁵ As in [Cullen and Perez-Truglia \(2023\)](#), we interact the transition type dummies ($D_{i,t+s}^j$) with indicators for female and male junior bankers separately. We include banker fixed effects (α_i) to control for permanent differences in banker ability and possible differences in their attributes at the time of entry to the organization. In addition, we have director fixed effects ($\gamma_{i,t}^D$), year-month fixed effects separately for men and women ($\delta_t^W + \delta_t^M$), and baseline controls ($X_{i,t}$).²⁶ We cluster the standard errors at both director and banker levels.

Transitions W2W and M2M keep the gender of the director constant; they can hence serve as control group transitions. We are interested in the effects of “gaining” a female director given by $\beta_{s,M2W} - \beta_{s,M2M}$ and “losing” a female director given by $\beta_{s,W2M} - \beta_{s,W2W}$. These “single-difference” isolate the impact of a change in director gender from a director change more generally on junior men and women separately. Hence, $\beta_{s,M2W}^W - \beta_{s,M2M}^W$ provides estimates for junior women who transition from a male manager to a female manager, relative to junior women who transition from a male manager to another male manager, for each time period s around the transition date; $\beta_{s,M2W}^M - \beta_{s,M2M}^M$ provides the corresponding estimates for junior men. Similarly, $\beta_{s,W2M}^W - \beta_{s,W2W}^W$ provides estimates for junior women transitioning from a female manager to a male manager, relative to transitioning from a female manager to another female manager; $\beta_{s,W2M}^M - \beta_{s,W2W}^M$ provides the same estimates for junior men.

Ultimately, we want to understand whether W2M and M2W have a differential impact on junior men and women. For instance, if gaining a female director changes the assignment hazards of both male and female bankers similarly, then transitioning from a male director to a female director would not enable junior women to lead more projects and gain visibility when compared with their junior male colleagues in the same directorate. We therefore calculate and report “double-differences”, which take into account a first difference with respect to change in director gender and a second difference with respect to the junior banker’s gender. Hence, the impact of gaining a female director for junior women relative to men is given by $(\beta_{s,M2W}^W - \beta_{s,M2M}^W) - (\beta_{s,M2W}^M - \beta_{s,M2M}^M)$ for each time period s around the transition date; a positive estimate after the event would imply that a transition to a female director favors junior women. Similarly, the relative impact of losing a female director for junior women is given by $(\beta_{s,W2M}^W - \beta_{s,W2W}^W) - (\beta_{s,W2M}^M - \beta_{s,W2W}^M)$.

The outcome of interest is the cumulative number of assignments and their total amount by role. Recall that bankers’ performance as project leaders – measured by signings and business volumes as OL, which increase junior bankers’ visibility to senior management – are the main determinants of promotions, while their performance as OL and TM affects their future OL assignments. Director transitions can therefore impact junior bankers’ careers by influencing both their visibility and existing workload.

²⁵We have absorbing dummies for the extreme categories of $s \leq -9$ and $s \geq +9$, which are not reported in the event study graphs.

²⁶ $X_{i,t}$ includes five bins each for age, length of service in the organization, tenure on the job band, and family status variables (marital status, parent dummy, and number of months spent on parental leave - paid and unpaid separately - if any).

The necessary condition for our identification strategy is that the evolution of assignments for junior women relative to junior men is orthogonal to the director transition type conditional on our fixed effects and bankers' observable characteristics. In other words, we require that project assignments follow a similar trajectory for junior men and women prior to an event of each type, thereby ensuring that there is no systematic sorting of bankers to directors based on possible pre-existing gender gaps in workload. The event-study specification in Equation (10) provides a natural framework to test this parallel trends assumption up to eight quarters before the date of a director transition.