Mind the Gap: Gender Discrimination in Loan Pricing Around the World

Abstract

We study whether cultural attitudes toward female executives shape the terms of large, primarily syndicated, corporate loans. Exploiting cross-country variation in negative stereotypes about women's managerial ability, we find that firms with female CFOs face higher loan spreads and receive smaller loans in countries with more negative attitudes, relative to otherwise similar male-led firms. We analyse different explanations and find that these effects are consistent with a belief-based assessment of female abilities rooted in broader societal stereotypes, rather than risk-based explanations. The results are robust to alternative measures of gender-related cultural attitudes and to a wide range of sample and econometric specifications. Our results provide first evidence of discrimination against women in the international, mostly syndicated loan market.

Keywords: CFO, Gender, Debt, Banks, Culture, Loan Pricing

JEL classification: G21, G32, J16, Z13

1. Introduction

Despite a global trend toward greater gender equality, significant gender discrimination still exists (Global Gender Gap Report, 2023). Empirical evidence demonstrates that women face gender-based discrimination across various domains, including healthcare (Azad et al., 2020; Safran et al., 1997), education (Alan et al., 2018; Jayachandran, 2015), work-life balance (Pace & Sciotto, 2021), political representation (Hooghe et al., 2015; Teele et al., 2018), and, most notably, in the labour market (Bell et al., 2002; Grün, 2004; Moss-Racusin et al., 2012). Although several countries introduced gender quotas for female directors in publicly listed companies, starting with Norway in 2008 and later adopted by other European countries like Belgium, France, Germany, Italy, and Spain, and the number of women in executive positions has increased, women are still significantly underrepresented in corporate boards, particularly in top executive roles such as CEO and CFO (MSCI, 2025).

Existing evidence on gender bias in credit markets is mixed and context-dependent. Discrimination has been documented in household credit markets, including mortgage lending (Fang & Munneke, 2017; Ladd, 1982; Robinson, 2002). In peer-to-peer lending, even when female borrowers appear more creditworthy, their likelihood of funding remains the same (Chen et al., 2020). For small-business lending, some studies report discrimination against female entrepreneurs or executives (Alesina et al., 2013; Fay & Williams, 1993; Mijid & Bernasek, 2013), while others find limited or no gender differences (Blanchflower et al., 2003; Storey, 2004). In contrast, evidence from large corporations sometimes points in the opposite direction, with female-led firms receiving more favourable loan terms (Francis et al., 2013; Luo et al., 2018). Notably, most existing studies focus on single-country samples, such as Italy (Alesina et al., 2013), China (Chen, 2020; Luo et al., 2018), Trinidad and Tobago (Storey, 2004), New Zealand (Fay & Williams, 1993), and the United States (Blanchflower et al., 2003; Francis et al., 2013; Robinson, 2002), leaving open whether, and why, gender-related frictions vary systematically across countries.

This study contributes to the literature by examining whether societal attitudes toward female leadership affect the pricing and loan size of large, primarily syndicated corporate loans. Using an international sample of 13,806 loan facilities to 3,868 firms in 57 countries from 2003-2024, we find on average no difference in loan spreads between female and male-led firms. However, once we incorporate borrower-country beliefs about female leadership, we observe that female-led firms receive significantly worse loan conditions. We proxy for these beliefs using the Integrated Values Survey (IVS) statement "Men make better business executives than

women" and construct an equality score as the share of respondents who "disagree" or "strongly disagree" with it.

Our central result is that executive gender is priced through culture. Firms with female CFOs face higher spreads and receive smaller loans in countries with more negative attitudes toward women as business executives, compared with otherwise similar male-led firms. Economically, the estimates imply a large baseline gap: in a hypothetical country with an equality score of zero, where no respondent rejects the statement that men make better business executives than women, firms with female CFOs would pay a spread surcharge of around 230 bps relative to comparable firms with male CFOs. While such an extreme value is not observed in our sample, the interaction is economically meaningful over the observed range. Each one-percentage-point increase in the share of respondents rejecting the statement reduces the gender spread differential by 2.68 bps. The same cultural moderation pattern extends beyond pricing to loan size: firms with female CFOs obtain significantly smaller loan amounts in less gender-egalitarian environments. We do not find robust evidence that CEO gender predicts spreads or amounts, consistent with prior evidence that the CFO role is particularly salient for creditors (Francis et al., 2013).

To illustrate magnitudes, consider an average loan of $350 million. Using the latest available cultural values, the implied spread differential in Indonesia (Equality Score 38) is about 89 bps, corresponding to roughly $3.13 million in additional annual interest costs for firms with female CFOs, and an implied loan amount that is around $189 million smaller. In a highly gender-egalitarian country such as Sweden (Equality Score close to 97), the predicted spread differential is slightly negative (about -17 bps), implying an annual interest cost reduction of roughly $0.60 million; the loan-size estimates imply that firms with female CFOs receive about 18% more credit, or $64 million more, than comparable firms with male CFOs.

We proceed by assessing competing explanations for our results. First, we test whether the relevant cultural channel reflects borrower-country norms or lender-side preferences. Re-estimating our interaction models using cultural values measured in the lead arranger's country and its parent country yields no evidence that lender-side norms drive the results. Moreover, the cultural moderation effect remains economically meaningful when we introduce lender fixed effects and absorb time-varying lender characteristics, such as loan policies, using lender-by-year specifications. Second, we assess whether these findings reflect risk-based contracting. The culture-gender interaction does not predict subsequent changes in borrower distress risk. Moreover, the results are not accompanied by systematic adjustments in standard non-price contract terms, such as a higher likelihood of collateralisation, shorter maturities, the inclusion

of financial covenants or performance-pricing provisions, or a larger share of the loan retained by the lead arranger, which would imply higher syndicate concentration (Berger & Udell, 1990; Berger et al., 2005; Francis et al., 2013; Rajan & Winton, 1995; Sufi, 2007). Taken together, the evidence is more consistent with belief-based inference and statistical discrimination, where group characteristics are used as proxies under imperfect information, than with ex ante risk-based contract design or ex post realised risk differences (Arrow, 1998; Becker, 1957; Ellemers, 2018; Phelps, 1972). In particular, the results support a mechanism in which lenders price executive gender based on expectations about how female CFOs are perceived, and how effectively they can operate within the borrower's social and institutional environment (Arrow, 1998; Ellemers, 2018; Phelps, 1972). Consistent with this explanation, additional tests using alternative cultural proxies point to broader patriarchal gender-role norms and stereotypes as the relevant cultural dimension.

This study contributes to the existing literature on gender discrimination in financial markets in several ways. While previous research has explored gender biases in lending practices, particularly in small business markets (Alesina et al., 2013; Blanchflower et al., 2003; Fay & Williams, 1993; Mijid & Bernasek, 2013; Storey, 2004), limited attention has been paid to the role of executive gender in large and syndicated loans. We address this gap by offering the first analysis of the relationship between top executive gender and loan pricing in the international, mostly syndicated loan market. We complement the findings of Francis et al. (2013) and Luo et al. (2018), who focus on a single country, by examining cross-country variation. As our results confirm, investigating cross-country variation is crucial in this context because discrimination against women in business varies substantially worldwide and has economically and statistically significant effects on loan pricing and loan amounts.

Next, and perhaps most notably, we complement previous literature on cultural influences on financial decision-making (Alesina & Giuliano, 2015; Dyck et al., 2019; Falk et al., 2018; Guiso et al.,2006) by showing that a country's societal attitudes towards gender are a critical determinant of both pricing and non-pricing terms in the international and mostly syndicated loan market. This highlights the importance of considering the cultural context when analysing soft factors, such as gender, which are often shaped by subjective evaluations.

Finally, on a broader level, our findings contribute to the literature on discrimination against women in business and politics by identifying large corporate credit markets as an additional domain in which biases against female leadership persist (Bell et al., 2002; Hooghe et al., 2015; Teele et al., 2018).

The remainder of the paper is structured as follows. Section 2 reviews related literature and develops the hypothesis. Section 3 describes the data, institutional setting, and descriptive evidence. Section 4 outlines the empirical strategy. Section 5 presents the main results. Section 6 examines mechanisms and interpretation, and Section 7 reports robustness and extensions. Section 8 concludes.

2. Background and Hypothesis

A country's cultural environment provides a fundamental framework of shared norms, values and expectations that shape how individuals interpret and form beliefs about others (Hofstede, 1980; Inglehart, 2015). A large survey-based literature documents pronounced cross-country heterogeneity in gender stereotypes, including beliefs about women's suitability for leadership and their role in economic life (Ellemers, 2018; Hofstede, 1980; Inglehart, 2015). Using large-scale survey data from more than 300,000 individuals across 64 countries, Breda et al. (2020) show that cultural context strongly influences beliefs about gender differences in mathematical ability. Napp and Breda (2022), drawing on survey evidence from over 500,000 respondents in 72 countries, demonstrate that while stereotypes favouring men are widespread, their strength varies markedly across societies. Related evidence further indicates that cultural environments can generate qualitatively different stereotype content: Cuddy et al. (2015) document that traits associated with masculinity and femininity differ sharply between the United States and East Asian societies.

In leadership and business contexts, these cultural norms shape expectations about authority, competence, and appropriate gender roles. Hofstede (1980) emphasises that more "masculine" societies tend to associate leadership with assertiveness and dominance, traits more strongly attributed to men, whereas women are expected to be modest and relationship-oriented. Omar and Davidson (2001) argue that societal beliefs rooted in Confucianism, Islamic teachings, or traditional family values often foster negative stereotypes about women in business. In cultures where family and motherhood are strongly emphasised, women are frequently expected to prioritise family responsibilities over career advancement. In some Islamic and Confucian societies, social or legal restrictions further limit women's access to leadership positions (De Leon & Ho, 1994; Nagata, 1984; Tayeb, 1997). Consistent with these arguments, the GLOBE leadership study shows that women in more gender-egalitarian societies, such as those in Scandinavia, are perceived as more competent leaders than women in societies characterised by high power distance or traditional gender roles, such as those found

in the Middle East or East Asia (House, 2004). As a result, female executives may be evaluated very differently across countries: in more gender-egalitarian environments, gender cues may be viewed as less informative or irrelevant, while in societies characterised by traditional gender-role beliefs, gender may trigger stronger scepticism about competence and authority.

These culturally shaped beliefs are particularly relevant in economic settings characterised by uncertainty and limited observability. Economic theory distinguishes between taste-based discrimination and belief-based (statistical) discrimination. Taste-based discrimination reflects a preference (or disutility) for interacting with members of a particular group (Becker, 1957). By contrast, statistical discrimination arises when decision-makers use group-level beliefs to infer unobservable characteristics from noisy or costly individual-level information (Aigner & Cain, 1977; Arrow, 1998; Phelps, 1972). Statistical discrimination does not require prejudice; rather, it reflects belief-based inference under uncertainty and can generate differential outcomes even when those beliefs are inaccurate or unrelated to realised performance.

In corporate settings, executive gender differs fundamentally from observable managerial credentials such as education, tenure, or professional experience in that it does not constitute an objectively verifiable signal of managerial ability or firm risk. When individual-level information is imperfect, economic theory predicts that observable group characteristics can enter decisions through belief-based inference rather than objective assessment (Arrow, 1998; Phelps, 1972). In such environments, decision-makers may rely on shared beliefs and stereotypes to form expectations about unobservable traits (Ellemers, 2018), implying that executive gender can acquire informational relevance not mechanically but through its interpretation within a given social environment.

A growing empirical literature documents average gender differences in corporate behaviour, including greater risk aversion and more ethically oriented decision-making among female executives (Faccio et al., 2016; Huang & Kisgen, 2013; Luo et al., 2020). While related evidence suggests that such differences can appear across a range of cultural contexts (Atari et al., 2020; Bönte, 2015; Cárdenas et al., 2012; Markowsky & Beblo, 2022; Qian et al., 2024), these are population-level regularities rather than traits that can be verified ex ante for a given borrower during loan negotiations. As a result, lenders cannot directly price "female conservatism" or "female ethicality" at the firm level based solely on objective information. Instead, executive gender is most likely to matter when lenders face residual uncertainty about managerial quality and rely on beliefs about how gender relates to competence, reliability, and future decision-making.

This mechanism is particularly relevant in credit markets. Bank lending decisions are made under substantial information asymmetry, especially in large and syndicated loan markets where lenders must form forward-looking assessments of borrower quality and future firm performance (Ivashina, 2009; Sufi, 2007). While hard information, such as financial statements, credit ratings, and collateral, forms the foundation of credit analysis, lenders also evaluate the quality of a firm's management (Francis et al., 2013; Graham et al., 2008; Grunert et al., 2005), as managerial ability and effectiveness are key determinants of corporate outcomes (Kaplan et al., 2012). Because many dimensions of managerial effectiveness (e.g., judgement, leadership, execution ability) are difficult to observe, verify, and quantify at the time of contracting, lenders' assessments inevitably involve subjective judgement.

Taken together, these arguments imply that executive gender enters loan contracting through belief-based inference under uncertainty, and that the effect of executive gender on loan pricing should vary systematically across countries with different beliefs about women as business leaders. We therefore hypothesise:

Hypothesis 1: The more negative a country's cultural perception of women as business leaders, the higher the loan spreads charged to female-led firms relative to male-led firms.

3. Data

3.1 Sample and Variables

The empirical analysis examines syndicated bank loans raised by an international sample of corporate borrowers. Loan-level data are obtained from the Loan Pricing Corporation's (LPC) DealScan database, which provides detailed information on loan contract terms in the global commercial loan market. Our primary outcome variable is the loan spread, measured as the all-in drawn spread in basis points, which captures the total cost of borrowing, including fees (Ivashina, 2009). Loan size is measured as the tranche amount in US dollars, and loan maturity is measured in months from origination to final maturity. We construct indicator variables for secured loans, seniority, US-dollar-denominated loans, term loans, refinancing loans, multiple tranches, financial covenants, and performance-pricing provisions. Relationship loans are defined as loans in which the borrower has previously borrowed from at least one of the same lead arrangers within the past five years.

Information on executive identity and gender is drawn from ExecuComp and Bureau van Dijk's Orbis database. ExecuComp primarily covers publicly listed US firms, while Orbis

provides executive- and firm-level information for a wide range of public and private firms worldwide. To ensure broad international coverage, we supplement ExecuComp with Orbis and rely on Orbis for accounting data. We define Female CEO (Female CFO) as an indicator equal to one if the firm's CEO (CFO) at the time of loan origination is female. Female Executive equals one if either the CEO or the CFO is female at origination.

Firm-level control variables are constructed from Orbis accounting data. Firm size is measured as the natural logarithm of total assets. Tangibility is defined as property, plant, and equipment divided by total assets. Leverage is measured as total debt divided by total assets, following Demerjian (2011). Profitability is measured as EBITDA divided by total assets. Borrower financial distress risk is proxied by the modified Altman Z-score, as in Chava (2014). We also construct an indicator for publicly traded firms. Borrower credit quality is measured using Moody's issuer ratings from DealScan. Based on these ratings, we construct indicator variables for prime-grade, junk-grade, and unrated borrowers.

To capture cross-country variation in beliefs about female leadership, we draw on data from the Integrated Values Survey (IVS), which combines information from the European Values Study (EVS) and the World Values Survey (WVS). These surveys are large-scale, repeated cross-sectional programs designed to measure social norms, values, and beliefs across countries. The IVS covers 466 surveys conducted in 118 countries between 1981 and the present. Our primary measure of cultural attitudes toward female leadership is the Equality Score, which proxies for borrower-country beliefs about women's ability to hold executive positions relative to men. The measure is based on the IVS survey statement: "Men make better business executives than women." Survey respondents can select from four options: "strongly agree," "agree," "disagree," and "strongly disagree." We aggregate individual responses at the country level by dividing the number of participants who select "disagree" or "strongly disagree" by the total number of respondents in that country, yielding a score that ranges from 0 to 100, with higher values indicating more gender-egalitarian beliefs. Because survey waves are conducted at multi-year intervals, typically every four years, we interpolate cultural values between observed waves and extrapolate values for up to two years before and after the first and last available observations for each country. This procedure ensures continuous coverage of cultural beliefs over the sample period while preserving their slow-moving nature.

We include several country-level control variables. Democracy is measured using the Economist Intelligence Unit's Democracy Index. Financial development, capturing the institutional efficiency of the financial system, is derived from the IMF's Financial Development Index Database. Macroeconomic conditions are proxied by annual real GDP

growth, and institutional quality is measured using the control-of-corruption indicator, both obtained from the World Bank.

After merging loan-level, executive, firm-level, and cultural data, we apply several sample restrictions. We exclude loan observations for which ExecuComp and Orbis provide conflicting information on executive identity, loans for which gender information is missing for either the CEO or the CFO, and loan-year observations for borrowers located in countries for which no cultural values data are available. The final sample consists of 13,806 loan tranches issued to 3,868 firms across 57 countries over the period 2003-2024. Detailed definitions of all variables and their data sources are provided in Table A1 in Appendix A.

3.2 Descriptive Statistics

Table 1 presents descriptive statistics for the main variables used in the analysis. Approximately 13% of the sample's loans are granted to firms with at least one female top executive (CEO or CFO). Female CFOs are present in about 10% of loan observations, whereas female CEOs appear in approximately 3%. These shares are higher than those reported in earlier single-country studies (Francis et al., 2013; Luo et al., 2018), consistent with the increasing representation of women in top management positions over the past two decades (MSCI, 2025).

[Insert Table 1 about here]

The Equality Score exhibits substantial cross-country variation. Within the sample, it ranges from a minimum of 13.13, recorded in Egypt in 2006, to a maximum of 97.16, recorded in Sweden in 2019. The mean value of 83.37 indicates that, on average, approximately 83% of respondents in the sampled countries reject the view that men are superior business executives. While this suggests relatively close gender equality, there is still some bias in favour of men.

Figure 1 illustrates both the magnitude of cross-country variation and the slow pace of cultural attitudes over time. The top panel reports the earliest available Equality Score for each country, while the bottom panel reports the most recent score. Countries without available information are shown in grey. Values range from dark blue (least gender-egalitarian beliefs) to light green (most gender-egalitarian beliefs). Western countries such as the United States, Canada, Western Europe, and the Scandinavian economies exhibit relatively high equality scores, reflecting broadly gender-egalitarian views of business leadership. In contrast, many countries in Eastern Europe, parts of Asia, Africa, and Russia display substantially lower scores, attributing higher business competence to male executives. While some countries, particularly

in Latin America and East Asia, exhibit gradual changes over time, cultural attitudes toward female leadership are generally slow-moving.

[Insert Figure 1 about here]

Loan spreads range from 1.75 to 1,800 basis points, with a mean of 210 basis points, in line with prior studies (Lim et al., 2014). The average loan size is $673 million, slightly below but comparable to figures reported in Francis et al. (2013). Average loan maturity is 54 months. Approximately 40% of loans are secured, and 99% are senior, in line with Maskara (2010). Most loans (71%) are denominated in US dollars. Relationship loans account for 37% of observations. Term loans represent 42% of the sample, and 58% of deals involve multiple tranches. Financial covenants are present in 33% of loans, 18% are refinancing loans, and 29% include performance-based pricing provisions.

Regarding firm characteristics, sample firms have an average total asset value of $12.84 billion. Tangibility averages 0.30, leverage has a mean of 27%, and profitability averages 0.13. The modified Altman Z-score has a mean of 1.71, indicating a moderate risk of financial distress on average. Public firms constitute 81% of the sample. Approximately 30% of loans are classified as prime grade.

Country-level controls also display substantial variation. The democracy score has a mean of 8.04, ranging from 2.26 to 9.93. Financial development ranges from 21.18 to 82.99, with a mean of 58.41. The average real GDP growth rate is 2.25%. The control-of-corruption indicator ranges from -1.28 to 2.45, with a mean value of 1.18.

Additional descriptive statistics on loan distributions across years, countries, and industries, executive characteristics, and pairwise correlations are reported in Tables B1-B5 in Appendix B.

3.3 Univariate Comparison

Table 2 presents univariate comparisons between firms with at least one female top executive and firms led exclusively by male executives. Firms with female executives receive slightly more favourable loan pricing: the average loan spread is 204.51 bps, compared to 210.91 bps for male-led firms (a difference of 6.40 bps), which is statistically significant at the 10% level and consistent with prior evidence (Francis et al., 2013). Loans to firms with female executives are also less likely to be secured and tend to have somewhat simpler loan structures, as reflected

in a lower average number of tranches. Female-led firms are more prevalent in countries with higher Equality Scores and greater financial development.

Differences in firm characteristics are more pronounced. Firms with female executives are larger, more profitable, and more likely to be privately held. They exhibit lower leverage, higher Z-scores, and a higher likelihood of prime-grade ratings, although the latter difference is not statistically significant. These patterns are consistent with prior research documenting lower risk-taking and stronger ethical behaviour among female executives (Bernardi & Arnold, 1997; Faccio et al., 2016; Huang & Kisgen, 2013).

Overall, the univariate comparisons indicate that female-led and male-led firms differ along dimensions that are known to affect loan pricing, underscoring the importance of controlling for borrower, loan, and country characteristics in the multivariate analysis.

[Insert Table 2 about here]

4. Empirical Analysis

4.1 Baseline Model

Our research question is whether executive gender is associated with differences in the cost of bank credit, and whether such differences depend on the cultural environment in which the borrower operates. We begin with the following baseline specification:

$$Spread_{\mathrm{i,j,t}} = \alpha + \beta_1 FemaleExecutive_{\mathrm{i,t}} + \gamma X_{i,t-1} + \theta Z_{i,j,t} + \lambda W_{c,t} + \psi E_{i,t} + \mu_c + \delta_s + \delta_t + \varepsilon_{i,j,t} \quad (1)$$

where the unit observation is the loan tranche j issued by the borrower i in year t. The dependent variable, Spread, is the all-in drawn spread measured in basis points. The key explanatory variable, Female Executive, is an indicator equal to 1 if the borrowing firm has at least one female top executive (CEO or CFO) at the time of loan signing, and 0 otherwise.

Following prior literature, we include a comprehensive set of borrower-level controls captured by the vector $\gamma X_{i,t-1}$. First, we include credit ratings, as they serve not only as a widely accepted forward-looking measure of firm default risk but also as a valuable source of assessments of managerial quality. Prior research has shown that credit ratings capture dimensions of executives' risk-taking behaviour (Bonsall IV et al., 2017; Kuang & Qin, 2013) and can predict the likelihood of accounting irregularities and fraud (Huang et al., 2023). Thus,

credit ratings reflect financial and qualitative insights into firm-level risk relevant for loan pricing.

We also control for firm size, as larger firms are generally considered less risky due to their greater capacity to absorb cash flow shocks and meet debt obligations (Goss & Roberts, 2011). Profitability is included on similar grounds; more profitable firms tend to have stronger internal cash flows and are thus less likely to default. Leverage, which increases financial risk, has been shown to be positively associated with higher loan spreads (Goss & Roberts, 2011). To complement credit ratings, we include the modified Altman Z-score (Chava, 2014) as an additional measure of financial distress risk. A higher z-score implies a lower likelihood of financial distress and is expected to be associated with lower borrowing costs. Tangibility is also controlled, as tangible assets enhance recovery values in the event of default and thus affect pricing (Graham et al., 2008). Moreover, we include a dummy variable for public firms, as public companies face stricter disclosure requirements that may reduce information asymmetry and lead to more favourable loan terms. All borrower controls are lagged by one year to ensure they are predetermined relative to contracting, and continuous variables are winsorised at the 1st and 99th percentiles.

$\theta Z_{i,j,t}$ captures loan- and tranche-level characteristics that are known to affect loan pricing. Specifically, we control for loan size, maturity, loan type, seniority, complexity (i.e., the number of tranches), refinancing status, financial covenants, performance pricing provisions, and currency denomination. Furthermore, we control for relationship lending, as repeated borrowing from the same lender can reduce the loan spread (Bharath et al., 2009). The loan purpose is captured through six categories to reflect potential differences in risk across the use of proceeds.

Because our analysis is international, we additionally include time-varying borrower-country characteristics captured by the vector $\lambda W_{c,t}$. We control for the level of democracy, financial development, economic growth, and governance quality to account for differences in institutional environments that may jointly affect financing conditions and executive labour-market outcomes.

To isolate the effect of executive gender from other observable executive attributes, we include a vector of executive controls $\psi E_{i,t}$ capturing age, education, and professional background. These characteristics may shape perceived managerial competence and the credibility of borrower-provided information and thus can influence lenders' assessments independent of gender.

Finally, we include borrower-country fixed effects μ_c, industry fixed effects δ_s based on two-digit SIC codes, and year fixed effects δ_t to absorb time-invariant cross-country heterogeneity, persistent industry differences in financing conditions, and global shocks. Standard errors are heteroskedasticity-robust and clustered at the borrower level.

5. Main Results

5.1 The Effect of Executive Gender on Loan Spread

Table 3 reports the baseline estimates from Equation (1). Column (1) presents an unconditional specification without controls. Columns (2)-(5) sequentially add borrower characteristics, loan characteristics, borrower-country controls, and executive characteristics, respectively. While adding borrower characteristics significantly reduced our sample, it still contains loan data from 44 countries. Across specifications, the coefficient on Female Executive is economically small and statistically indistinguishable from zero. Point estimates range from -6.41 bps to 1.45 bps, but none are statistically significant. Thus, in the pooled international sample, we do not find evidence of systematic differences in loan spreads between firms with female top executives and those led exclusively by male executives, once observable borrower, loan, country, and executive characteristics are controlled for.

The control variables generally load with the expected signs and are consistent with prior work on syndicated loan pricing (Francis et al., 2013; Graham et al., 2008). Larger, more profitable, and less leveraged firms, as well as firms with better credit ratings and lower distress risk, tend to pay lower spreads. Additionally, banks do not appear to perceive a significant information asymmetry between public and private firms, suggesting that they can also extract all relevant information from private firms.

Loan characteristics likewise align with standard pricing intuitions. Collateralised loans, term loans, and loans with multiple tranches are priced as riskier. By contrast, senior loans and longer-maturity loans are associated with lower spreads in our specifications. Relationship lending enters with a negative coefficient, though it is not statistically significant. Furthermore, while the coefficients for loan size and financial covenants are positive, they are statistically insignificant. Overall, the results are consistent with the assumption that firms with higher default risk and greater information asymmetry are charged higher interest rates (Francis et al., 2013).

[Insert Table 3 about here]

One potential explanation for the absence of an average gender effect is that pooling executive roles masks role-specific effects, as CEOs and CFOs differ in responsibilities and relevance for loan contracting (Francis et al., 2013; Luo et al., 2018). We therefore re-estimate the full specification separately for female CFOs and female CEOs. The point estimate for Female CFO is positive (4.31 bps), and that for female CEO is negative (-6.56 bps), but neither estimate is statistically significant. Hence, even when distinguishing between roles, we do not find robust average spread differences between female- and male-led firms in the pooled international sample.

Taken together, Table 3 indicates that executive gender is not, on average, associated with loan spreads internationally. While this contrasts with evidence from single-country settings (Francis et al., 2013; Luo et al., 2018), it is consistent with the central implication of our framework: if executive gender is interpreted through culturally shaped beliefs about women as business leaders, gender-related spread differences should be context-dependent and may average out in a heterogeneous international sample. In the next section, we therefore examine whether executive gender is priced differently depending on borrower-country beliefs about female leadership, as implied by Hypothesis 1.

5.2 Cultural Influence on Loan Spreads

So far, the baseline results indicate no average association between executive gender and loan spreads in the pooled international sample. A key distinction between our setting and prior work is the international scope: we observe borrowers across 44 countries with markedly different cultural attitudes towards gender roles and leadership. As argued in Hypothesis 1, executive gender may be interpreted as soft information through culturally shaped beliefs. In more gender-egalitarian environments, female executives may be perceived as equally competent (or even associated with lower risk), whereas in environments with more negative views of women in leadership, they may face less favourable assessments. When pooled across heterogeneous countries, these effects can offset each other, yielding a muted average gender effect.

To capture this heterogeneity, we augment Equation (1) by interacting the executive-gender indicator with our borrower-country measure of cultural attitudes towards female leadership. Our primary proxy, the Equality Score, is derived from the IVS statement "Men make better business executives than women" and measures the share of respondents who disagree or strongly disagree with the statement (higher values indicate more gender-egalitarian perceptions of executive competence). Consistent with our conceptual framework, we measure cultural attitudes at the borrower-country level; alternative definitions based on lender

characteristics are examined in Section 7.1. The estimated interaction effect captures whether firms face differential treatment not only based on executive gender but also based on the cultural environment in which they operate.

The results are reported in column (1) of Table 4. In contrast to the baseline regressions, the coefficient on Female Executive becomes positive and statistically significant. At the same time, the interaction term between Female Executive and the Equality Score is negative and statistically significant. The Equality Score itself has no significant direct effect on spreads. The coefficient pattern implies economically meaningful differences across environments characterised by more negative beliefs about female leadership. Interpreting the model linearly, in a hypothetical country with an Equality Score of zero, where no respondent rejects the view that men make better business executives, firms with female executives would face a spread surcharge of 230 bps relative to male-led firms. Each one-percentage-point increase in the share of respondents rejecting this view reduces the surcharge by approximately 2.68 bps. Evaluated at the sample mean Equality Score of 83.4, the implied differential is 6.45 bps. Overall, the evidence in column (1) provides strong support for Hypothesis 1: borrower-country beliefs systematically shape how executive gender is priced in loan markets.

[Insert Table 4 about here]

Columns (2) and (3) distinguish between female CFOs and female CEOs. The interaction with the Equality Score is highly statistically significant for female CFOs, whereas the corresponding estimate for female CEOs is not statistically significant. Importantly, the CEO point estimates are of the same sign and often larger in magnitude, suggesting that the lack of significance may partly reflect limited statistical power rather than a qualitatively different relationship. Given the precision of the estimates, we can draw reliable inferences only for the CFO role.

This pattern is consistent with institutional differences in the loan contracting process. Preparing and communicating financial information, shaping financing policy, and leading negotiations with lenders are typically the CFO's responsibilities. Prior work shows that leverage and financing choices are more closely linked to CFO attributes than to those of CEOs (Frank & Goyal, 2007) and that CFO characteristics are associated with the quality of accounting information used by lenders (Geiger & North, 2006). Recent evidence further indicates that CFO personal characteristics systematically affect bank loan contracting (Hrazdil et al., 2024; Li et al., 2023). While we estimate all subsequent specifications separately for

CEOs and CFOs, the corresponding interaction effects for female CEOs remain statistically insignificant throughout and do not alter the qualitative conclusions. For brevity, we therefore focus on the CFO specification in the remainder of the analysis.

Figure 2 illustrates the implied spread differentials for female versus male CFO firms across countries using the latest available Equality Score and the estimates from column (2) of Table 4. In Indonesia (2020), with an Equality Score of 38, firms with female CFOs are predicted to have spreads 89.31 bps higher than comparable firms with male CFOs. In contrast, for Sweden (2019), with an Equality Score around 97, firms with female CFOs are predicted to pay 17.26 bps less.

[Insert Figure 2 about here]

At very high levels of gender egalitarianism, modestly negative implied differentials are not unexpected. Prior evidence documents average gender differences in corporate behaviour, including greater risk aversion and more ethically oriented decision-making among female executives (Faccio et al., 2016; Huang & Kisgen, 2013; Luo et al., 2020), which, when gender-based stereotypes are weak, can translate into slightly more favourable loan pricing rather than a convergence to zero. In this sense, small negative differentials at the upper end of the Equality Score are consistent with existing evidence rather than anomalous. Measurement considerations further strengthen this interpretation. The IVS item captures rejection of the claim that men are better business executives, but does not distinguish between environments where gender is largely irrelevant and those where female leadership is particularly favourably viewed. As a result, very high Equality Scores may pool conceptually distinct environments, thereby mechanically generating modestly negative implied differentials.

Using an average loan size of $350 million in this sub-sample, the implied spread differential corresponds to an annual interest cost reduction of roughly $0.60 million for firms with female CFOS in Sweden and an annual cost increase of roughly $3.13 million in Indonesia. These magnitudes underscore that executive gender becomes economically meaningful for loan pricing once cultural context is considered.

Taken together, Table 4 and Figure 2 show that executive gender is priced in a culturally contingent manner. While we find no unconditional gender effect in the pooled international sample, borrower-country beliefs about female leadership systematically condition how lenders price loans to female-led firms, with the effect driven primarily by the CFO's gender. The findings, therefore, provide strong support for Hypothesis 1.

5.3 Beyond Pricing: Loan Size

The analysis so far focuses on loan spreads, that is, the price of credit conditional on origination. However, lenders can respond to the same perceptions along additional margins. In particular, when lenders are more sceptical about managerial quality, they may not only demand compensation through higher spreads but also limit their exposure by reducing the amount of credit extended (Giannetti & Mariassunta, 2012). We therefore examine whether borrower-country gender norms moderate the relationship between executive gender and loan size, capturing the quantity of lending conditional on contract formation.

To do so, we re-estimate our main interaction specification using the natural logarithm of tranche size as the dependent variable. All controls and fixed effects are identical to the spread regressions to ensure comparability. If lenders in less gender-egalitarian environments view female leadership more negatively, we expect firms with female CFOs to receive smaller loans than comparable male-led firms in those environments.

Column (1) of Table 5 reports the results. Female CFO enters negatively and significantly, while the interaction between Female CFO and the Equality Score is positive and significant. Thus, firms with female CFOs receive significantly smaller amounts of credit in countries with more negative beliefs about women as business executives, and this gap narrows as cultural attitudes become more egalitarian. Quantitatively, the estimates imply that in a hypothetical country with an Equality Score of zero, firms with female CFOs would receive tranche sizes approximately 76% smaller than those of comparable firms with male CFOs. The disadvantage decreases by 0.017 log points for each one-point increase in the Equality Score.

A potential concern with tranche-level quantities is that smaller tranches do not necessarily imply less total credit supplied. Lenders may structure the same overall loan package into more, smaller tranches to tailor contract terms across facilities, share risk across lenders, or increase contractual flexibility for monitoring and renegotiation. To address this concern, column (2) re-estimates the model using the natural logarithm of total deal amount (USD) as the dependent variable. Because the total deal amount remains the same across loan tranches, we keep one observation per deal. Treating each tranche as a separate observation would over-weight multi-tranche deals, whereas restricting to one observation per deal yields a clean deal-level measure of total credit allocation. Reassuringly, the estimated cultural moderation pattern remains qualitatively unchanged: Female CFO is negative and significant, and the interaction Female CFO × Equality Score is positive and significant, indicating that the

quantity effect is not merely an artefact of tranche structuring but extends to the overall amount of credit extended.

The magnitudes are economically meaningful. To illustrate the effects, consider the estimates in column (2) and the average total deal amount of $450 million for this subsample. Using Indonesia's Equality Score of 38, the implied log difference corresponds to deals that are approximately 54% smaller for firms with female CFOs, with about $243 million less credit than for comparable firms with male CFOs. In contrast, in a highly gender-egalitarian country such as Sweden (Equality Score around 97), the implied difference corresponds to deals that are approximately 18% larger, about $83 million more credit for firms with female CFOs. At the sample mean Equality Score of 83.4, the implied difference is close to zero, corresponding to roughly 5% smaller deals, around $21 million.

Taken together, the evidence from spreads and loan sizes suggests that borrower-country gender norms shape loan contracting outcomes along both key dimensions: the price of credit and the amount of credit extended.

[Insert Table 5 about here]

6. Evidence on Underlying Mechanisms and Explanations

The cultural moderation effects documented in Sections 5.2-5.3 raise the question through which channel executive gender affects loan contracting. Two competing explanations are plausible. Under a risk-based explanation, lenders rationally adjust loan terms if firms with female executives differ in expected or realised credit risk beyond what is captured by observable characteristics such as leverage, Z-scores, or credit ratings. By contrast, under a belief-based explanation, borrower-country culture matters because it shapes how female leadership is perceived in the firm's operating environment; accordingly, lenders may rely on borrower-country stereotypes about female leadership when forming expectations about managerial quality under uncertainty, even in the absence of objective risk differences.

We evaluate these mechanisms in three steps. First, we test whether the documented effects are specific to perceptions of women in leadership or instead reflect broader societal gender norms. Second, we examine whether the culture–gender interaction predicts subsequent realised distress. Third, we assess whether the interaction is accompanied by systematic adjustments in standard non-price terms and monitoring intensity, which are widely used to manage borrower risk and information asymmetry in syndicated lending (Francis et al., 2013; Sufi, 2007).

6.1 Belief-Based: Broader Stereotypes and Norms

A natural starting point is to examine whether the cultural effects identified earlier are confined to perceptions of women in corporate leadership positions or instead reflect broader societal biases against women. We therefore construct three alternative cultural proxies from the Integrated Values Survey (IVS) that capture leadership stereotypes and gender-role norms beyond the specific corporate context.

The first proxy captures leadership beliefs in the political domain by measuring disagreement with the statement "Men make better political leaders than women." While not corporate-specific, this item reflects general leadership stereotypes that plausibly correlate with attitudes towards female executives. The second proxy measures traditional breadwinner norms using the item "When jobs are scarce, men should have more right to a job than women". This captures whether women are viewed as less valued in the labour market and, by implication, as less suited for professional and managerial roles, with stronger expectations to remain in traditional domestic roles, including staying at home and childcare. The third proxy captures discomfort with women occupying higher-status economic positions using disagreement with the statement "Problem if women have more income than husband", reflecting traditional status and power dynamics that may translate into scepticism towards women in high-responsibility roles, including executives. For each item, we construct country-level proxies analogously to the Equality Score by aggregating the share of respondents who disagree (or strongly disagree) with the respective statement.

If the documented loan-pricing effects were driven solely by beliefs about women in corporate leadership roles, these broader gender-role measures should have little explanatory power. If, instead, the effects reflect pervasive stereotypes and patriarchal norms, the interaction between female CFO status and these alternative cultural proxies should exhibit a pattern similar to that obtained using the Equality Score.

Table 6 shows that across all three alternative proxies, we continue to find a positive, statistically significant coefficient on Female CFO and a negative, statistically significant interaction between Female CFO and the cultural proxy. The magnitudes are comparable to those obtained using the Equality Score. These results indicate that female CFOs face less favourable loan pricing in societies characterised by traditional or patriarchal gender norms, even when cultural attitudes are measured outside the context of corporate leadership. Overall, the evidence suggests that the documented cultural variation in loan spreads reflects broader societal gender stereotypes rather than scepticism towards women in executive positions per se

[Insert Table 6 about here]

6.2 Risk-Based: Realised Distress

A competing explanation for the cultural interaction effects is that they reflect lenders' risk assessments rather than belief-based inference. Under this interpretation, lenders may charge higher spreads to firms with female CFOs in certain cultural environments because they expect these firms to face a more challenging operating environment in less gender-equal societies, for example, due to reduced access to informal networks, weaker stakeholder support, or greater resistance in business interactions, so that borrower performance and credit risk deteriorate ex post. Importantly, this mechanism does not require prejudice or a preference against female executives; it is consistent with rational contracting in response to anticipated operational frictions. If loan pricing reflects such a risk-based mechanism, a testable implication follows. Higher spreads should be accompanied by a relative deterioration in borrowers' financial condition after origination that is systematically stronger for firms with female CFOs operating in less gender-equal countries.

Conceptually, covenant violations after origination would provide a direct measure of realised distress, as breaches typically trigger renegotiation or intervention (Chava & Roberts, 2008). However, this approach is not feasible in our setting because only about 33% of loans include financial covenants and, given the limited number of loans to firms with female CFOs in the full sample, this restriction leaves too few observations for reliable inference, raising concerns about statistical power and non-random selection. As an alternative, we analyse realised distress using post-loan changes in the modified Altman Z-score (Chava, 2014). The Z-score provides a widely used continuous measure of default risk based on accounting information and is available for a substantially larger share of the sample. While it does not capture discrete distress events in the same way as covenant violations, it allows us to test whether firms experience a systematic deterioration in financial condition following loan origination, as predicted by a risk-based explanation.

We compute changes in the Z-score relative to the year of loan origination over one-, two-, and three-year horizons. Table 7 presents unconditional comparisons of post-loan Z-score changes between firms with female and male CFOs, split by below- versus above-median Equality Score countries. Consistent with the loan-size analysis, we evaluate post-loan changes in distress risk at the deal level (one observation per deal) to avoid mechanically overweighting deals that are split into multiple tranches. In low-equality countries (Panel A), firms with female

CFOs experience slightly larger declines in Z-scores than firms with male CFOs. However, the differences are minor compared to the mean Z-Score of 1.71 and statistically insignificant. In high-equality countries (Panel B), post-loan changes in Z-scores are very similar across gender groups, and differences are insignificant.

[Insert Table 7 about here]

Complementing these comparisons, we estimate a regression framework that mirrors our main pricing specification and test whether the interaction between CFO gender and the Equality Score predicts post-loan changes in Z-scores. Table 8 reports results for one-, two-, and three-year horizons. We find no statistically significant effect of Female CFO on subsequent changes in the Z-score. Crucially, the interaction between Female CFO and Equality Score is also statistically insignificant across horizons, despite the inclusion of borrower characteristics and a comprehensive set of fixed effects. Notably, the Equality Score itself enters with a positive coefficient across specifications, indicating that borrowers in more gender-egalitarian environments experience, on average, slightly more favourable post-loan Z-score dynamics. However, this general country-level association does not differ systematically between firms with female and male CFOs.

Taken together, the evidence does not indicate that firms with female CFOs experience culturally contingent deterioration in realised distress risk, casting doubt on a risk-based interpretation of the loan spread results.

[Insert Table 8 about here]

6.3 Risk-Based: Non-Price Terms and Monitoring

Even if realised post-loan performance does not differ systematically, lenders may still adjust contract design ex ante if they perceive higher risk or greater monitoring needs. Syndicated loans are multi-dimensional contracts in which lenders can respond not only through spreads but also via maturity choice (Barclay & Smith, 1995), collateral requirements (Berger & Udell, 1990), covenant usage, performance pricing provisions, and syndicate structure. When borrowers are perceived as harder to monitor, lead arrangers may retain larger shares, resulting in more concentrated syndicates (Sufi, 2007).

To assess whether the culture-gender interaction reflects such risk-based contracting, we re-estimate the baseline interaction model using alternative dependent variables capturing core non-price terms and monitoring intensity: (i) the natural logarithm of loan maturity, (ii) an indicator for whether the loan is secured, (iii) an indicator for the presence of financial covenants, (iv) an indicator for performance pricing provisions, and (v) syndicate concentration measured by a Herfindahl-Hirschman Index (HHI) of lender participation shares following Sufi (2007). The HHI is computed as the sum of squared lender commitment shares within each syndicate; higher values indicate more concentrated syndicates and more substantial monitoring incentives. Non-price terms are analysed at the tranche level, as they can differ across facilities. In contrast, syndicate concentration (HHI) is a measure of the overall deal syndicate and, therefore, is measured at the deal level.

Table 9 presents the results. If higher spreads charged to firms with female CFOs in less gender-equal countries reflected lenders' ex ante assessments of greater borrower risk or opacity, we would expect corresponding adjustments in non-price terms or monitoring intensity. However, we find no evidence of such adjustments. The interaction between the Female CFO and the Equality Score is not statistically significant for maturity, collateralisation, covenant inclusion, performance pricing provisions, and syndicate concentration. Likewise, the coefficient on Female CFO itself is generally small and statistically insignificant across these contractual margins. These findings suggest that lenders do not respond to female CFOs in less gender-equal environments by tightening standard contractual tools typically used to manage borrower risk and opacity (Berger & Udell, Francis et al., 2013; 1990; Rajan & Winton, 1995; Sufi, 2007).

[Insert Table 9 about here]

Taken together, the evidence provides little support for a risk-based interpretation of the cultural interaction effects. Firms with female CFOs do not experience systematically higher post-loan financial distress in less gender-equal environments, nor do lenders adjust non-price contract terms or monitoring intensity in ways that typically accompany higher perceived borrower risk. Instead, the results are more consistent with a belief-based channel driven by broader societal gender stereotypes. Consistent with the auxiliary tests in Section 4.5.1, the relevant cultural dimension appears to reflect broad patriarchal gender-role norms rather than scepticism specifically towards women in executive positions. In countries with less gender-equal norms, these stereotypes translate into wider loan spreads and smaller credit allocations

for firms with female CFOs, even in the absence of corresponding differences in realised risk or standard contractual responses.

7. Robustness and Extensions

The results so far suggest that borrower-country cultural attitudes systematically shape how executive gender affects both loan pricing and credit allocation. In this section, we assess the robustness of these findings and explore alternative interpretations related to the locus of cultural influence, lender-specific policies, and sample composition and measurement choices. We also address concerns that remaining differences in borrower observables or executive traits may drive the results.

7.1 Locus of Cultural Influence: Borrower vs. Lender Culture

An obvious question arising from our findings is whose cultural beliefs matter for loan contracting decisions: those prevailing in the borrower's country or those held by the lending institutions themselves. From a theoretical perspective, both channels are plausible.

Under a belief-based (statistical discrimination) framework, lenders rely on culturally shaped expectations when evaluating borrowers under uncertainty (Arrow, 1998; Phelps, 1972). In this case, stereotypes embedded in the borrower's social and institutional environment may affect firms' operating conditions, bargaining power, and perceived managerial effectiveness. Lenders may therefore price executive gender based on expectations about how female CFOs are likely to be perceived and able to operate within that cultural context, even if lenders do not personally hold such views. This mechanism aligns with our prior evidence showing no increase in realised credit risk and no systematic adjustment in standard risk-mitigating contractual provisions.

By contrast, a taste-based discrimination interpretation implies that lenders' own preferences or biases directly affect loan terms (Becker, 1957). Under this view, cultural norms prevailing in the lender's country or within the parent banking group should be more relevant for explaining gender-related differences in loan terms than borrower-country norms.

To empirically distinguish between these interpretations, we re-estimate the baseline interaction model using cultural values measured in the lead arranger's country and in the lead arranger's parent country, rather than the borrower's country. We identify the lead arranger following Chakraborty et al. (2018). When multiple lead arrangers are present, we define the primary arranger as the arranger with the largest loan share if all lead arrangers are

headquartered in the same country. We exclude observations with lead arrangers headquartered in different countries to avoid ambiguity in assigning lender-side cultural values.

The results in Table B6 in Appendix B suggest that lender-side norms do not drive the documented cultural interaction. Columns (1)-(2) proxy lender culture using the lender parent's country Equality Score, while columns (3)-(4) use the lender subsidiary/operating country Equality Score. To ensure that the estimates are not picking up time-invariant cross-country differences on the lender side, columns (2) and (4) further absorb lender-country heterogeneity by adding parent-country fixed effects and subsidiary-country fixed effects, respectively. Across all specifications, the coefficient for Female CFO status, as well as the interaction between Female CFO status and lender-side cultural values, is statistically insignificant.

The contrast with the strong borrower-country interaction is consistent with the view that the relevant cultural channel operates primarily through the borrower environment rather than lenders' own cultural preferences, which is difficult to reconcile with a pure taste-based discrimination mechanism and instead supports a belief-based interpretation.

7.2 Lender Fixed Effects

A related concern is that the estimated cultural moderation effects may reflect lender-specific policies or organisational practices rather than borrower-country norms. To address this, we progressively augment the baseline interaction model with increasingly demanding lender controls: lender-parent fixed effects, lender-parent-by-year fixed effects, lender fixed effects, and lender-by-year fixed effects.

Table B7 in Appendix B shows that the interaction between Female CFO and borrower-country culture remains economically meaningful and statistically significant across specifications. Importantly, even under lender-by-year fixed effects, a demanding specification that absorbs all time-varying and cross-sectional lender-specific policies and pricing strategies, the interaction remains statistically significant at conventional levels (albeit with reduced precision). While these specifications substantially reduce identification variation, the persistence of the effect, given that many banks have local subsidiaries with limited cross-country exposure, strengthens our interpretation. It indicates that borrower-country gender norms continue to shape how executive gender enters loan contracting decisions, even when comparing loans made by the same lender in the same year.

7.3 Sample Construction and Measurement Choices

Next, we conduct a series of robustness checks to address concerns related to sample composition. Because US borrowers are overrepresented in DealScan, US observations may disproportionately influence our estimates. We therefore re-estimate our baseline specifications excluding all US borrowers. In addition, to ensure that the results are not driven by a small number of countries with very few loans associated with female CFOs, we re-estimate the regressions excluding countries with fewer than six female-CFO loan observations. As shown in Table B8 in Appendix B, the main interaction effects remain robust and qualitatively unchanged.

7.4 Ethical Behaviour

While our baseline controls account for key observable differences between male and female executives (including risk and financial characteristics), ethical behaviour may not be fully captured. Due to data limitations, we cannot rely on standard accounting-based fraud measures, such as accrual-based proxies, without sharply reducing the sample. Instead, following Brazel et al. (2009), we construct a non-financial fraud proxy based on divergence between firm revenue growth and employee growth. Table B9 in Appendix B shows that the results remain broadly stable. The estimate falls marginally short of conventional significance levels ($p \approx 0.06$), reflecting a sharp increase in standard errors (almost doubling), while the point estimate changes only marginally.

7.5 Propensity Score Matching and Alternative Approaches

Because firms with female CFOs may differ systematically from those with male CFOs, a natural approach is propensity score matching (PSM). However, PSM is not well-suited to our setting. Our identification relies on cross-country heterogeneity in borrower-country gender norms, yet in many borrower countries, the number of loans associated with female CFOs is small. Matching at the borrower-country level would therefore require severe common-support restrictions and would discard a large share of treated observations, substantially reducing power and potentially eliminating the cross-country variation central to the analysis. Pooled matching would also discard observations and could alter the effective country composition of the estimation sample, making interpretation difficult when the estimate is explicitly culture-dependent.

We therefore adopt two reweighting approaches that preserve the full sample while balancing observables: inverse probability weighting (IPW) and entropy balancing. Table B10 in Appendix B reports the results. Column (1) reproduces the baseline spread specification.

Column (2) re-estimates the same interaction model using stabilised IPW weights, where propensity scores for having a female CFO are estimated from borrower characteristics and fixed effects for borrower country, year, and industry; we trim extreme propensity scores before constructing weights to improve overlap. Column (3) reports results from entropy balancing, which directly chooses weights so that the distribution of borrower characteristics in the male-CFO group matches that of the female-CFO group without relying on a parametric propensity score model.

Across both weighting schemes, Female CFO remains negative. The interaction between Female CFO and Equality Score remains negative and economically similar to the baseline estimate, indicating that the cultural moderation effects are unlikely to be driven by observable borrower composition, such as systematic differences in size, leverage, profitability, or ratings among firms appointing female CFOs in different cultural environments. We report diagnostics in Appendix B for both reweighting approaches, Table B11 for stabilised IPW and Table B12 for entropy balancing, including (i) covariate balance before and after weighting, (ii) the distribution of the resulting weights (and the implied effective sample size for entropy balancing), and (iii) propensity-score overlap for IPW. Together, these diagnostics indicate that the results are not driven by limited common support or by a small number of extreme-weight observations.

8. Conclusion

This article examines how executive gender relates to corporate loan contract terms in an international, predominantly syndicated, loan market, with a particular focus on cross-country cultural beliefs. Using a large global sample and controlling for a rich set of executive characteristics (including age, experience, and education), we provide a more granular assessment of gender effects in loan contracting than prior work. Our international setting also allows us to study whether and how the pricing and allocation of bank credit vary across cultural environments.

Our findings show that executive gender matters for loan contracting in a culturally contingent way. Firms with female CFOs pay significantly higher loan spreads in countries where societal beliefs about women's managerial suitability are less favourable. Importantly, this cultural moderation extends beyond pricing to the loan size: firms with female CFOs also receive smaller loans in culturally less gender-egalitarian environments. Taken together, the results imply that unfavourable gender beliefs can translate into economically meaningful financing disadvantages for female-led firms, raising their cost of debt and reducing the scale

of bank financing available to them. These disadvantages may also affect firms' executive choices: if appointing a female CFO increases financing costs in certain environments, firms may face incentives to avoid female appointments. In this way, discrimination in debt markets can reinforce frictions in executive labour markets.

Several additional analyses shed light on the interpretation. First, the interaction between female CFO status and borrower-country culture remains economically meaningful and robust across a wide range of specifications and demanding fixed-effects structures, including controls that absorb lender heterogeneity and time-varying lender policies. Second, tests using alternative cultural proxies indicate that the effect is not confined to beliefs about women in executive roles alone; instead, the patterns are consistent with broader patriarchal norms and traditional gender-role beliefs. Third, our channel analysis offers little support for a risk-based explanation: we find no evidence that borrowers with a female CFO experience systematically worse post-loan distress outcomes in culturally less favourable environments, nor do lenders systematically adjust standard non-price risk-mitigation tools or monitoring intensity in ways typically associated with higher perceived borrower risk. Finally, reweighting approaches that balance observable characteristics across borrowers with male and female CFOs (stabilised IPW and entropy balancing) yield estimates close to the baseline results, mitigating concerns that the findings are driven by observable borrower composition.

We also document an important asymmetry across executive roles. In contrast to CFOs, CEO gender does not exhibit robust relationships with loan spreads or credit allocation in our setting. This pattern is consistent with the notion that lenders place particular weight on the executive role most directly associated with financial reporting, disclosure quality, and the implementation of financial policy.

Our study has several limitations that point to opportunities for future research. First, our primary cultural measure captures disagreement with the statement that men are better business executives than women. While well-suited to capturing negative beliefs about female leadership, it does not distinguish between environments in which gender is viewed as largely irrelevant and environments in which female leadership is viewed as particularly favourable. As a result, very high equality scores may pool conceptually distinct settings, which may help explain occasional negative implied spread differentials in the most gender-egalitarian countries. Second, because our data include only originated loans, we cannot study whether cultural beliefs also affect the extensive margin of credit, such as approval probabilities or the set of firms that obtain syndicated loans in the first place. Third, our setting limits the feasibility of country-specific matching designs. Because loans to firms with female CFOs are scarce in

many borrower countries, within-country propensity score matching would require stringent common-support assumptions. It would discard a large share of treated observations, thereby weakening statistical power and eliminating the cross-country variation central to our interaction-based approach. Fourth, while our evidence is most consistent with belief-based mechanisms, we cannot fully disentangle whether these beliefs operate primarily through lenders' expectations about operating frictions in the borrower's environment or through other belief-driven channels that are not directly observable in contract data. Future work could combine loan-level data with direct measures of lender expectations, internal credit assessments, or credit-application outcomes to more precisely isolate the mechanisms by which culture shapes gender-related differences in corporate credit markets.

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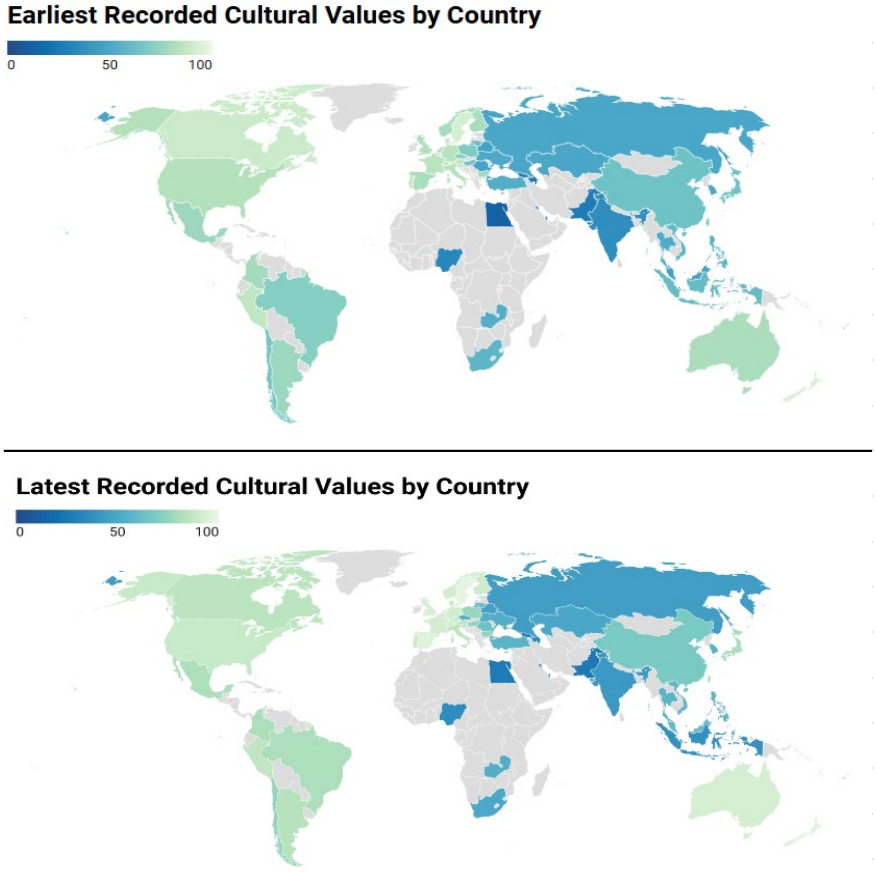
Figure 1: Earliest & Latest Recorded Equality Scores by Country



Note: This figure illustrates the percentage of respondents in each country who "disagree" or "strongly disagree" with the statement "Men make better business executives than women". The upper section of the figure represents the earliest recorded cultural value for each country, while the lower section displays the most recent recorded cultural value.

Figure 2: Gender spread differences by Equality Score

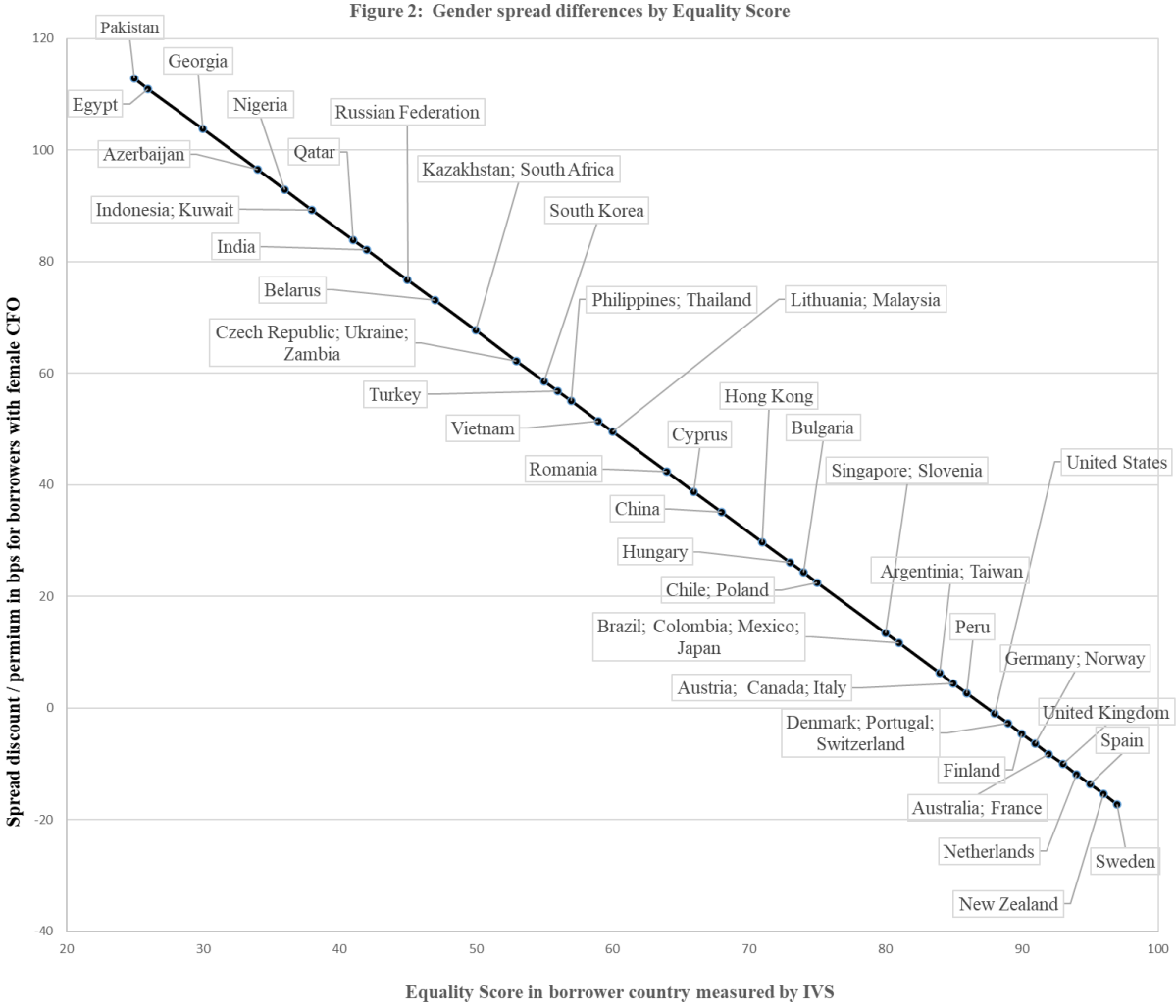


Table 1: Descriptive Statistics

Variable	N	Mean	Std. Dev.	Min.	p10	p25	p50	p75	p90	Max.
Gender										
Female Executive	13,806	0.13	0.33	0	0	0	0	0	1	1
Female CFO	13,806	0.10	0.30	0	0	0	0	0	0	1
Female CEO	13,806	0.03	0.18	0	0	0	0	0	0	1
Culture										
Equality Score	13,806	83.37	10.93	13.13	72.30	83.96	87.26	88.32	88.63	97.16
Loan Characteristics										
Spread (bps)	13,806	210	158	1.75	55	110	175	275	400	1,800
Loan Size $M	13,806	673	1,510	0.38	41	100	280	700	1,500	49,000
Maturity (Months)	13,806	54	28	1	12	36	60	60	84	722
Secured	13,806	0.40	0.49	0	0	0	0	1	1	1
Senior	13,806	0.99	0.09	0	1	1	1	1	1	1
USD Denomination	13,806	0.71	0.45	0	0	0	1	1	1	1
Relationship Loan	13,806	0.37	0.48	0	0	0	0	1	1	1
Term Loan	13,806	0.42	0.49	0	0	0	0	1	1	1
Multiple Tranches	13,806	0.58	0.49	0	0	0	1	1	1	1
Financial Covenants	13,806	0.33	0.47	0	0	0	0	1	1	1
Refinance	13,806	0.18	0.38	0	0	0	0	0	1	1
Performance Pricing	13,806	0.29	0.46	0	0	0	0	1	1	1
Borrower Characteristics										
Firm Size $M	10,154	12,838	27,242	79	374.8	956.6	2,972	10,368	32,619	164,781
Tangibility	10,098	0.30	0.26	0.00	0.02	0.08	0.21	0.47	0.73	0.93
Leverage	9,606	0.27	0.20	0.00	0.01	0.13	0.25	0.38	0.52	0.95
Z-Score	6,822	1.71	1.11	-1.22	0.52	0.94	1.59	2.37	3.17	5.11
Profitability	9,437	0.13	0.08	-0.05	0.05	0.08	0.12	0.17	0.23	0.41
Public	13,806	0.81	0.40	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Prime Grade	13,806	0.30	0.46	0.00	0.00	0.00	0.00	1.00	1.00	1.00
Country Characteristics										
Democracy	13,806	8.04	0.92	2.26	7.73	7.98	8.11	8.22	8.99	9.93
Financial Development	13,479	58.41	8.86	21.18	49.55	50.81	56.89	65.96	70.09	82.99
Economic Growth	13,806	2.25	2.13	-10.40	0.10	1.80	2.40	2.80	3.80	17.70
Country Governance	13,806	1.28	0.62	-1.28	0.61	1.27	1.358	1.44	1.88	2.45

Note: This table provides summary statistics for the key variables. The underlying unit of observation is the loan tranche. Definitions of the variables are provided in Table A1 of Appendix A.

Table 2: Univariate Comparison

	Loans to firms with Female Executive			Loans to firms with Male Executives			T-test for differences in mean
	N	Mean	Median	N	Mean	Median	Difference (unequal variance)
Dependent variable							
spread (bps)	1,757	204.51	170.00	12,049	210.91	175.00	-6.40 *
Culture							
Equality Score	1,757	84.02	87.26	12,049	83.27	87.26	0.75 ***
Loan Characteristics							
Loan Size $M	1,757	708.76	300.00	12,049	667.49	275.00	41.27
Maturity (Months)	1,757	52.62	60.00	12,049	53.78	60.00	-1.16 *
Secured	1,757	0.36	0.00	12,049	0.41	0.00	-0.05 ***
Senior	1,757	0.99	1.00	12,049	0.99	1.00	0.00
USD Denomination	1,757	0.71	1.00	12,049	0.71	1.00	0.00
Relationship Loan	1,757	0.33	0.00	12,049	0.37	0.00	-0.04 ***
Term Loan	1,757	0.42	0.00	12,049	0.42	0.00	0.00
Multiple Tranches	1,757	0.56	1.00	12,049	0.58	1.00	-0.02 *
Financial Covenants	1,757	0.32	0.00	12,049	0.34	0.00	-0.02
Refinance	1,757	0.17	0.00	12,049	0.18	0.00	-0.01
Performance Pricing	1,757	0.30	0.00	12,049	0.29	0.00	0.01
Borrower Characteristics							
Firm Size $M	1,250	16,139.02	2,710.74	9,012	12,374.71	3,016.44	3,764.31 ***
Tangibility	1,242	0.27	0.18	8,963	0.30	0.22	-0.03 ***
Leverage	1,193	0.25	0.23	8,514	0.27	0.25	-0.02 ***
Z-Score	893	1.84	1.68	6,000	1.69	1.58	0.15 ***
Profitability	1,172	0.14	0.12	8,353	0.13	0.11	0.01 ***
Public	1,757	0.79	1.00	12,049	0.81	1.00	-0.02 *
Prime Grade	1,757	0.32	0.00	12,049	0.30	0.00	0.02
Country Characteristics							
Democracy	1,757	8.00	8.11	12,049	8.04	8.11	-0.04 *
Financial Development	1,691	58.94	59.15	11,788	58.33	56.84	0.61 *
Economic Growth	1,757	2.31	2.50	12,049	2.24	2.30	0.07
Country Governance	1,757	1.27	1.34	12,049	1.28	1.36	-0.01

Note: This table provides summary statistics for the key variables, split into loans with at least one female executive and loans to firms with male executives, including a t-test for differences in mean. The underlying unit of observation is the loan tranche. Definitions of the variables are provided in Table A1 of Appendix A. Significance at the 10%, 5%, and 1% levels are indicated by *, **, ***, respectively.-

Table 3: Multivariate Regression of Executive Gender on Loan Spread

	Female Executive					Female CFO	Female CEO
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Female Executive	-6.405	0.737	1.326	2.403	1.448		
	(7.462)	(6.035)	(4.864)	(5.044)	(5.114)		
Female CFO						4.311	
						(5.544)	
Female CEO							-6.566
							(9.429)
Borrower Characteristics							
Firm Size		-16.600 ***	-16.456 ***	-17.929 ***	-17.946 ***	-17.906 ***	-17.814 ***
		(2.149)	(2.480)	(2.532)	(2.553)	(2.537)	(2.551)
Tangibility		-11.046	-2.370	1.934	0.894	0.697	2.382
		(14.292)	(12.757)	(13.005)	(13.107)	(13.066)	(13.036)
Leverage		84.949 ***	74.441 ***	77.262 ***	78.440 ***	79.039 ***	76.679 ***
		(16.735)	(13.675)	(13.727)	(13.645)	(13.659)	(13.697)
Z-Score		-14.389 ***	-8.268 ***	-8.256 ***	-8.547 ***	-8.475 ***	-8.327 ***
		(3.164)	(2.514)	(2.584)	(2.580)	(2.588)	(2.579)
Profitability		-227.113 ***	-207.104 ***	-207.005 ***	-205.346 ***	-205.731 ***	-205.657 ***
		(41.897)	(35.838)	(36.443)	(36.392)	(36.481)	(36.319)
Public		-8.231	3.598	0.783	2.638	4.329	-0.191
		(14.916)	(14.272)	(14.736)	(15.397)	(14.988)	(15.054)
Prime Grade		-44.131 ***	-23.473 ***	-21.553 ***	-20.858 ***	-20.988 ***	-21.234 ***
		(7.335)	(5.987)	(5.930)	(5.726)	(5.789)	(5.919)
Junk Grade		62.091 ***	41.058 ***	38.540 ***	38.735 ***	38.228 ***	38.980 ***
		(6.748)	(6.013)	(6.118)	(6.045)	(6.090)	(6.098)
Loan Characteristics							
Loan Size			-0.061	0.970	1.085	1.008	1.093
			(2.022)	(2.074)	(2.072)	(2.075)	(2.081)
Maturity			-15.401 ***	-15.628 ***	-15.782 ***	-15.770 ***	-15.682 ***
			(3.455)	(3.487)	(3.548)	(3.530)	(3.507)
Secured			50.871 ***	53.451 ***	53.569 ***	53.550 ***	53.727 ***
			(5.753)	(6.018)	(6.002)	(6.024)	(5.999)
Senior			-376.313 ***	-381.360 ***	-390.044 ***	-383.186 ***	-387.443 ***
			(60.649)	(62.600)	(62.094)	(62.178)	(62.445)
USD Denomination			-8.907	-12.323	-12.369	-12.865	-11.617
			(9.460)	(9.899)	(10.150)	(10.054)	(10.058)
Relationship Loan			-4.566	-2.904	-3.420	-3.327	-3.137
			(4.314)	(4.436)	(4.441)	(4.394)	(4.487)
Term Loan			33.618 ***	36.509 ***	35.708 ***	36.468 ***	35.662 ***
			(4.080)	(4.216)	(4.209)	(4.164)	(4.254)
Multiple Tranches			7.213	8.194 *	8.216 *	8.342 *	7.902 *
			(4.589)	(4.678)	(4.726)	(4.686)	(4.692)
Financial Covenants			3.306	2.991	2.753	2.751	2.804
			(5.073)	(5.195)	(5.179)	(5.177)	(5.189)
Refinance			-9.176 *	-11.707 **	-11.642 **	-11.233 **	-12.292 **
			(5.260)	(5.523)	(5.556)	(5.435)	(5.651)
Performance Pricing			-33.571 ***	-34.822 ***	-33.530 ***	-34.122 ***	-33.938 ***
			(4.904)	(4.939)	(4.855)	(4.897)	(4.878)
Country Characteristics							
Democracy				25.358	28.946	29.033	26.749
				(24.890)	(24.394)	(24.792)	(24.949)
Financial Development				-1.270 **	-1.247 **	-1.151 **	-1.387 **
				(0.556)	(0.598)	(0.586)	(0.589)
Economic Growth				-2.579	-2.591	-2.681	-2.581
				(3.648)	(3.552)	(3.635)	(3.619)
Country Governance				-30.948	-31.965	-35.091	-25.775
				(34.609)	(35.245)	(35.331)	(34.341)
Fixed Effects							
Borrower Industry	No	Yes	Yes	Yes	Yes	Yes	Yes
Borrower Country	No	Yes	Yes	Yes	Yes	Yes	Yes
Loan-Signing Year	No	No	Yes	Yes	Yes	Yes	Yes
Loan Purpose	No	No	Yes	Yes	Yes	Yes	Yes
CFO Characteristics	No	No	No	No	Yes	Yes	No
CEO Characteristics	No	No	No	No	Yes	No	Yes
Adjusted R-squared	0.000	0.269	0.461	0.462	0.464	0.463	0.463
Observations	13,806	6,779	6,779	6,516	6,516	6,516	6,516
Percentage Female	12.73	13.17	13.17	12.85	12.85	9.81	3.58

Note: The dependent variable is the loan spread. Columns (1) to (5) reveal the relationship between executive gender and loan spreads while controlling for different control variables. In columns (6) and (7), we distinguish between the genders of the CFO and CEO. Definitions of the variables are provided in Table A1 of Appendix A. The number of observations refers to the number of loan tranches observed. Standard errors are clustered at the firm level. Standard errors are in parentheses. Significance at the 10%, 5%, and 1% levels are indicated by *, **, ***, respectively.

Table 4: Cultural Influence on Loan Spread

	Female Executive	Female CFO	Female CEO
	(1)	(2)	(3)
Female Executive	230.153 **		
	(92.834)		
Female Executive x Equality Score	-2.683 **		
	(1.081)		
Female CFO		157.951 ***	
		(41.153)	
Female CFO x Equality Score		-1.806 ***	
		(0.491)	
Female CEO			403.195
			(362.617)
Female CEO x Equality Score			-4.775
			(4.189)
Equality Score	-0.008	-0.527	-0.070
	(1.587)	(1.626)	(1.580)
Borrower Characteristics			
Firm Size	-18.323 ***	-18.223 ***	-17.732 ***
	(2.522)	(2.504)	(2.520)
Tangibility	0.487	0.412	2.930
	(13.086)	(13.057)	(13.055)
Leverage	79.474 ***	79.581 ***	76.581 ***
	(13.605)	(13.647)	(13.743)
Z-Score	-8.514 ***	-8.504 ***	-8.201 ***
	(2.577)	(2.588)	(2.577)
Profitability	-201.753 ***	-202.833 ***	-207.296 ***
	(36.567)	(36.555)	(36.272)
Public	3.063	4.578	-0.399
	(15.410)	(15.015)	(15.058)
Prime Grade	-20.288 ***	-20.323 ***	-21.451 ***
	(5.711)	(5.756)	(5.885)
Junk Grade	39.098 ***	38.739 ***	38.799 ***
	(6.048)	(6.097)	(6.082)
Loan Characteristics			
Loan Size	1.389	1.197	1.168
	(2.056)	(2.057)	(2.077)
Maturity	-15.928 ***	-15.838 ***	-15.846 ***
	(3.535)	(3.523)	(3.502)
Secured	53.793 ***	53.609 ***	53.872 ***
	(5.996)	(6.025)	(5.992)
Senior	-390.876 ***	-383.409 ***	-388.316 ***
	(61.818)	(62.130)	(62.229)
USD Denomination	-12.175	-12.781	-11.496
	(10.110)	(10.048)	(10.031)
Relationship Loan	-3.711	-3.526	-3.179
	(4.452)	(4.391)	(4.506)
Term Loan	35.150 ***	36.188 ***	35.515 ***
	(4.215)	(4.171)	(4.260)
Multiple Tranches	8.896 *	8.693 *	8.260 *
	(4.702)	(4.678)	(4.675)
Financial Covenants	2.481	2.520	2.810
	(5.166)	(5.154)	(5.162)
Refinance	-11.731 **	-10.987 **	-12.343 **
	(5.708)	(5.589)	(5.737)
Performance Pricing	-33.430 ***	-34.022 ***	-34.007 ***
	(4.856)	(4.897)	(4.881)
Country Characteristics			
Democracy	27.348	29.019	25.339
	(25.167)	(25.659)	(25.939)
Financial Development	-1.227 **	-1.182 **	-1.395 **
	(0.573)	(0.565)	(0.559)
Economic Growth	-2.407	-2.479	-2.388
	(3.498)	(3.562)	(3.564)
Country Governance	-36.991	-38.094	-24.678
	(34.754)	(34.680)	(33.971)
Fixed Effects			
Borrower Industry	Yes	Yes	Yes
Borrower Country	Yes	Yes	Yes
Loan-Signing Year	Yes	Yes	Yes
Loan Purpose	Yes	Yes	Yes
CFO Characteristics	Yes	Yes	No
CEO Characteristics	Yes	No	Yes
Adjusted R-squared	0.465	0.463	0.464
Observations	6,516	6,516	6,516
Percentage Female	12.85	9.81	3.58

Note: The dependent variable is the loan spread. The table reveals the influence of the cultural perception of a top executive's gender on the loan spread. Equality Score represents the percentage of respondents who "disagree" or "strongly disagree" with the statement "Men make better business executives than women". Definitions of the variables are provided in Table A1 of Appendix A. The number of observations refers to the number of loan tranches observed. Standard errors are clustered at the firm level. Standard errors are in parentheses. Significance at the 10%, 5%, and 1% levels are indicated by *, **, ***, respectively.

Table 5: Cultural Influence on Loan & Deal Size

	Tranche Size	Deal Size
	(1)	(2)
Female CFO	-1.428 ***	-1.383 ***
	(0.538)	(0.485)
Female CFO x Equality Score	0.017 ***	0.016 ***
	(0.006)	(0.006)
Equality Score	0.010	0.021 *
	(0.014)	(0.011)
Borrower Characteristics		
Firm Size	0.581 ***	0.595 ***
	(0.017)	(0.013)
Tangibility	-0.254 **	-0.273 ***
	(0.111)	(0.086)
Leverage	0.238 *	0.278 ***
	(0.136)	(0.098)
Z-Score	0.042 **	0.039 **
	(0.019)	(0.017)
Profitability	1.529 ***	1.440 ***
	(0.251)	(0.230)
Public	0.080	0.094
	(0.140)	(0.122)
Prime Grade	0.128 **	0.091 **
	(0.054)	(0.044)
Junk Grade	0.239 ***	0.193 ***
	(0.047)	(0.039)
Loan Characteristics		
Loan Size		
Maturity	0.133 ***	0.171 ***
	(0.044)	(0.026)
Secured	-0.055	-0.011
	(0.039)	(0.032)
Senior	0.497	0.314
	(0.316)	(0.319)
USD Denomination	0.276 ***	0.043
	(0.083)	(0.056)
Relationship Loan	0.019	0.042
	(0.039)	(0.026)
Term Loan	0.001	-0.190 ***
	(0.041)	(0.034)
Multiple Tranches	-0.442 ***	
	(0.058)	
Number of Tranches		0.295 ***
		(0.030)
Financial Covenants	-0.081 **	-0.106 ***
	(0.039)	(0.035)
Refinance	0.103 **	0.079 **
	(0.043)	(0.034)
Performance Pricing	0.245 ***	0.226 ***
	(0.040)	(0.034)
Country Characteristics		
Democracy	-0.005	-0.073
	(0.137)	(0.118)
Financial Development	0.016 ***	0.014 ***
	(0.005)	(0.004)
Economic Growth	0.006	0.006
	(0.019)	(0.015)
Country Governance	0.219	0.376 *
	(0.254)	(0.206)
Fixed Effects		
Borrower Industry	Yes	Yes
Borrower Country	Yes	Yes
Loan-Signing Year	Yes	Yes
Loan Purpose	Yes	Yes
CFO Characteristics	Yes	Yes
Adjusted R-squared	0.559	0.690
Observations	6,516	4,437
Percentage Female	9.81	10.05

Note: The dependent variable in column (1) is the natural logarithm of the tranche amount in USD and in column (2) the natural logarithm of the Deal Amount in USD the loan size. The table reveals the influence of the cultural perception of a top executive's gender on the loan amount. Equality Score represents the percentage of respondents who "disagree" or "strongly disagree" with the statement "Men make better business executives than women". Definitions of the variables are provided in Table A1 of Appendix A. The number of observations refers to the number of loan tranches observed. Standard errors are clustered at the firm level. Standard errors are in parentheses. Significance at the 10%, 5%, and 1% levels are indicated by *, **, ***, respectively.

Table 6: Cultural Influence on Loan Spread (Broader Stereotypes)

	"Men make better political leaders than women"	"Problem if women have more income than husband"	"Job scace: Men should have more right to a job than women"
	(1)	(2)	(3)
Female CFO	112.417 ***	315.509 ***	185.721 ***
	(36.373)	(113.137)	(61.527)
Female CFO x Equality Politics	-1.371 ***		
	(0.463)		
Female CFO x Equality Income		-3.531 ***	
		(1.264)	
Female CFO x Equality Job			-1.980 ***
			(0.672)
Equality Politics	-0.599		
	(1.605)		
Equality Income		1.062	
		(3.399)	
Equality Job			-0.945
			(3.438)
Borrower Characteristics			
Firm Size	-18.178 ***	-22.590 ***	-18.093 ***
	(2.507)	(3.506)	(2.531)
Tangibility	0.365	-3.159	0.599
	(13.032)	(17.828)	(12.980)
Leverage	79.230 ***	108.289 ***	79.816 ***
	(13.650)	(17.016)	(13.662)
Z-Score	-8.517 ***	-7.403 **	-8.462 ***
	(2.588)	(3.260)	(2.588)
Profitability	-202.476 ***	-289.310 ***	-203.792 ***
	(36.670)	(51.843)	(36.447)
Public	4.065	-2.896	5.328
	(15.046)	(24.123)	(15.003)
Prime Grade	-20.438 ***	-20.697 ***	-20.421 ***
	(5.772)	(7.753)	(5.780)
Junk Grade	38.599 ***	35.669 ***	38.716 ***
	(6.080)	(7.253)	(6.035)
Loan Characteristics			
Loan Size	1.163	6.040 **	1.117
	(2.060)	(2.612)	(2.074)
Maturity	-15.797 ***	-21.534 ***	-15.701 ***
	(3.526)	(4.872)	(3.520)
Secured	53.602 ***	53.457 ***	53.490 ***
	(6.013)	(7.811)	(5.995)
Senior	-383.508 ***	-228.276 **	-381.750 ***
	(62.245)	(93.879)	(61.887)
USD Denomination	-12.786	-10.186	-12.598
	(10.047)	(12.545)	(10.227)
Relationship Loan	-3.550	-0.900	-3.547
	(4.398)	(4.870)	(4.408)
Term Loan	36.226 ***	35.359 ***	36.187 ***
	(4.168)	(5.245)	(4.159)
Multiple Tranches	8.617 *	10.438 *	8.755 *
	(4.686)	(5.900)	(4.692)
Financial Covenants	2.542	0.016	2.723
	(5.166)	(6.320)	(5.202)
Refinance	-11.093 **	-7.413	-11.464 **
	(5.544)	(5.968)	(5.450)
Performance Pricing	-34.061 ***	-30.266 ***	-34.053 ***
	(4.896)	(6.662)	(4.893)
Country Characteristics			
Democracy	27.957	36.213	30.739
	(24.768)	(51.124)	(29.391)
Financial development	-1.110 *	1.277	-1.203 *
	(0.584)	(1.693)	(0.661)
Economic growth	-2.457	1.352	-2.351
	(3.544)	(4.404)	(3.319)
Country governance	-37.961	-110.675	-41.665
	(35.175)	(86.458)	(40.045)
Fixed Effects			
Borrower Industry	Yes	Yes	Yes
Borrower Country	Yes	Yes	Yes
Loan-Signing Year	Yes	Yes	Yes
Loan Purpose	Yes	Yes	Yes
CFO Characteristics	Yes	Yes	Yes
Adjusted R-squared	0.463	0.427	0.464
Observations	6,516	3,906	6,516
Percentage Female	9.81	10.29	9.81

Note: The dependent variable is the loan spread. The table reveals the influence of the cultural perception of a top executive's gender on the loan spread. Equality Politics in column 1 represents the percentage of respondents who "disagree" or "strongly disagree" with the statement "Men make better political leaders than women". Equality Income in column 2 represents the percentage of respondents who "disagree" or "strongly disagree" with the statement "Problem if women have more income than husband". Equality Job in column 3 represents the percentage of respondents who "disagree" or "strongly disagree" with the statement "Job scarce: Men should have more right to a job than women". Definitions of the variables are provided in Table A1 of Appendix A. The number of observations refers to the number of loan tranches observed. Standard errors are clustered at the firm level. Standard errors are in parentheses. Significance at the 10%, 5%, and 1% levels are indicated by *, **, ***, respectively.

Table 7: Univariate Comparison of Post-Loan ΔZ-Scores

	Male CFO (Mean)	Female CFO (Mean)	Diff (F-M)
Panel A: Low Equality Countries (Equality Score below median)			
ΔZ t+1	-0.13	-0.17	-0.04
N	1,907	219	
ΔZ t+2	-0.16	-0.22	-0.06
N	1,836	209	
ΔZ t+3	-0.16	-0.23	-0.07
N	1,781	206	
Panel B: High Equality Countries **(**Equality Score above median)			
ΔZ t+1	-0.14	-0.16	-0.03
N	2,048	225	
ΔZ t+2	-0.16	-0.16	0.00
N	1,928	214	
ΔZ t+3	-0.16	-0.22	-0.06
N	1,844	202	

Note: This table reports mean changes in the modified Altman Z-score following loan origination for firms with male and female CFOs, separately for borrower countries with below- and above-median gender equality, at the deal level. ΔZ(t+k) denotes the change in the Z-score k years after loan signing relative to the year of origination. The number of observations varies across horizons due to data availability for post-loan accounting outcomes. Differences in means are tested using unequal-variance (Welch) t-tests. Definitions of the variables are provided in Table A1 of Appendix A. Significance at the 10%, 5%, and 1% levels is indicated by *, **, ***, respectively.

Table 8: Post-Loan Changes in Financial Distress Risk

	ΔZ t+1	ΔZ t+2	ΔZ t+3
	(1)	(2)	(3)
Female CFO	-0.275	-0.074	-0.006
	(0.222)	(0.295)	(0.328)
Female CFO x Equality Score	0.003	0.001	0.000
	(0.003)	(0.004)	(0.004)
Equality Score	0.020 ***	0.016 **	0.009
	(0.005)	(0.006)	(0.008)
Borrower Characteristics			
Firm Size	-0.011	-0.011	-0.018 *
	(0.009)	(0.010)	(0.011)
Tangibility	0.039	-0.030	-0.028
	(0.065)	(0.072)	(0.077)
Leverage	0.196 **	0.254 **	0.392 ***
	(0.089)	(0.101)	(0.106)
Z-Score	-0.200 ***	-0.210 ***	-0.243 ***
	(0.018)	(0.019)	(0.021)
Profitability	-1.273 ***	-1.329 ***	-1.621 ***
	(0.213)	(0.225)	(0.245)
Public	0.112	0.090	-0.011
	(0.086)	(0.079)	(0.090)
Prime Grade	0.002	-0.005	0.007
	(0.032)	(0.037)	(0.040)
Junk Grade	-0.175 ***	-0.187 ***	-0.164 ***
	(0.033)	(0.039)	(0.041)
Fixed Effects			
Borrower Industry	Yes	Yes	Yes
Borrower Country	Yes	Yes	Yes
Loan-Signing Year	Yes	Yes	Yes
Loan Purpose	No	No	No
CFO Characteristics	No	No	No
Adjusted R-squared	0.206	0.190	0.225
Observations	4,368	4,158	4,002
Percentage Female	10.16	10.17	10.19

Note: The dependent variable is the change in the modified Altman Z-score measured one, two, and three years after loan origination relative to the year of signing. Female CFO is an indicator equal to one if the firm's CFO is female at loan origination. Equality Score measures borrower-country gender attitudes and is defined as the percentage of survey respondents who disagree or strongly disagree with the statement "Men make better business executives than women." All regressions include borrower industry, borrower country, and loan-signing year fixed effects. Borrower characteristics are measured the year before the loan origination. Standard errors are clustered at the firm level and reported in parentheses. The unit of observation is the loan tranche. Variable definitions are provided in Table A1 of Appendix A. Statistical significance at the 10%, 5%, and 1% levels is denoted by *, **, and ***, respectively.

Table 9: Cultural Finluence on Non-Pricing Contract Terms and Syndicate Structure

	Maturity	Secured	Financial Covenants	Performance Pricing	Syndicate Concentration
	(1)	(2)	(3)	(4)	(5)
Female CFO	0.115	-0.153	0.108	-0.090	1323.273
	(0.273)	(0.160)	(0.118)	(0.100)	(1669.498)
Female CFO x Equality Score	-0.001	0.002	-0.002	0.001	-14.332
	(0.003)	(0.002)	(0.001)	(0.001)	(19.514)
Equality Score	-0.011 *	-0.005	-0.010 ***	0.001	-48.145 *
	(0.007)	(0.005)	(0.004)	(0.004)	(25.713)
Borrower Characteristics					
Firm Size	-0.089 ***	-0.049 ***	-0.019 **	0.004	-147.563 ***
	(0.013)	(0.008)	(0.007)	(0.007)	(42.685)
Tangibility	0.077	0.024	-0.028	-0.008	8.091
	(0.062)	(0.044)	(0.038)	(0.036)	(197.051)
Leverage	-0.001	0.196 ***	-0.054	-0.039	-150.815
	(0.068)	(0.050)	(0.046)	(0.044)	(259.882)
Z-Score	0.014	-0.025 **	-0.006	0.010	-129.771 **
	(0.012)	(0.011)	(0.008)	(0.007)	(52.219)
Profitability	0.183	-0.573 ***	0.104	0.076	684.781
	(0.156)	(0.126)	(0.100)	(0.095)	(600.233)
Public	-0.055	-0.114 **	0.033	0.054	-50.976
	(0.042)	(0.046)	(0.046)	(0.039)	(237.398)
Prime Grade	-0.038	-0.087 ***	0.025	0.031	-78.275
	(0.033)	(0.027)	(0.022)	(0.022)	(116.094)
Junk Grade	0.103 ***	0.215 ***	0.020	-0.063 ***	-423.647 ***
	(0.025)	(0.024)	(0.020)	(0.019)	(103.783)
Loan Characteristics					
Loan Size	0.051 ***	-0.009	-0.011 **	0.035 ***	-671.375 ***
	(0.015)	(0.007)	(0.006)	(0.006)	(46.228)
Maturity		0.071 ***	0.009	0.029 ***	-867.144 ***
		(0.012)	(0.011)	(0.010)	(65.462)
Secured	0.157 ***		0.077 ***	-0.004	587.075 ***
	(0.024)		(0.016)	(0.016)	(91.604)
Senior	-0.679 **	-0.071	0.039	-0.049	-1058.529
	(0.313)	(0.100)	(0.049)	(0.074)	(781.080)
USD Denomination	0.002	0.030	0.062 ***	-0.007	-292.432 *
	(0.035)	(0.023)	(0.019)	(0.021)	(164.653)
Relationship Loan	0.000	-0.037 **	-0.031 **	0.034 **	-535.563 ***
	(0.020)	(0.016)	(0.015)	(0.013)	(74.659)
Term Loan	0.201 ***	0.057 ***	0.035 ***	-0.067 ***	675.813 ***
	(0.021)	(0.012)	(0.011)	(0.012)	(90.849)
Multiple Tranches	0.121 ***	0.056 ***	0.009	-0.013	-1053.170 ***
	(0.021)	(0.015)	(0.013)	(0.013)	(74.409)
Financial Covenants	0.025	0.096 ***		0.520 ***	-67.946
	(0.029)	(0.020)		(0.018)	(103.200)
Refinance	0.061 ***	0.069 ***	0.118 ***	0.100 ***	88.618
	(0.021)	(0.021)	(0.020)	(0.019)	(97.936)
Performance Pricing	0.075 ***	-0.004	0.505 ***		-523.115 ***
	(0.026)	(0.019)	(0.017)		(102.554)
Country Characteristics					
Democracy	-0.222 ***	0.105 *	-0.009	0.029	-412.953
	(0.082)	(0.059)	(0.032)	(0.034)	(309.877)
Financial Development	0.001	-0.001	-0.004 **	-0.004 **	-28.201 ***
	(0.003)	(0.002)	(0.002)	(0.002)	(9.963)
Economic Growth	-0.003	-0.010	-0.002	0.004	-88.824 **
	(0.011)	(0.008)	(0.005)	(0.005)	(43.087)
Country Governance	-0.199 *	-0.094	-0.032	0.063	-291.262
	(0.120)	(0.097)	(0.070)	(0.076)	(459.823)
Fixed Effects					
Borrower Industry	Yes	Yes	Yes	Yes	Yes
Borrower Country	Yes	Yes	Yes	Yes	Yes
Loan-Signing Year	Yes	Yes	Yes	Yes	Yes
Loan Purpose	Yes	Yes	Yes	Yes	Yes
CFO Characteristics	Yes	Yes	Yes	Yes	Yes
Adjusted R-squared	0.199	0.358	0.491	0.455	0.349
Observations	6,516	6,516	6,516	6,516	4,437
Percentage Female	9.81	9.81	9.81	9.81	10.05

Note: This table examines whether cultural attitudes toward female leadership affect non-pricing loan contract terms and credit allocation. The dependent variables are, respectively, the natural logarithm of loan maturity, indicators for whether the loan is secured, includes financial covenants, or contains performance pricing provisions, and syndicate concentration measured by a Herfindahl–Hirschman Index (HHI) of lender participation shares following Sufi (2007). Female CFO is an indicator equal to one if the firm's CFO is female at loan signing. Equality Score measures the share of respondents who disagree or strongly disagree with the statement "Men make better business executives than women." All specifications include borrower, loan, and country-level controls, as well as borrower industry, borrower country, loan-signing year, and loan purpose fixed effects. CFO characteristics are included in all regressions; CEO characteristics are excluded. The unit of observation is the loan tranche. Standard errors are clustered at the borrower level and reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

10. Appendix A: Variable Definitions

Table A1: Variable Definitions

Variable	Definition	Source
Executive Gender		
Female Executive	Dummy equal to 1 if the loan is raised by a borrower with at least one female in the positions of CFO or CEO in the year of loan signing, 0	Orbis and Execucomp
Female CFO	Dummy equal to 1 if the loan is raised by a borrower with a female CFO in the year of loan signing, 0 otherwise	Orbis and Execucomp
Female CEO	Dummy equal to 1 if the loan is raised by a borrower with a female CEO in the year of loan signing, 0 otherwise	Orbis and Execucomp
Culture Borrower Country		
Equality Score	Share of respondents in the borrower country who "Disagree" or "Strongly Disagree" with the statement "Men make better business executives than women"	Integrated Values Survey
Equality Income	Share of respondents in the borrower country who "Disagree" or "Strongly Disagree" with the statement "Problem if women have more income than husband"	Integrated Values Survey
Equality Politics	Share of respondents in the borrower country who "Disagree" or "Strongly Disagree" with the statement "Men make better political leaders than women"	Integrated Values Survey
Equality Job	Share of respondents in the borrower country who "Disagree" or "Strongly Disagree" with the statement "Jobs scarce: Men should have more right to a job than women"	Integrated Values Survey
Executive Characteristics		
Age	Indicators for executive's age category: <50, between 50 and 65, >65, or unknown	Orbis & Execucomp
Experience	Indicators for executive's years with the borrower: <3, between 3 and 10, >10, or unknown	Orbis & Execucomp
Degree	Indicators for executive's highest educational degree: bachelor, master, PhD, other degree, or unknown	Orbis & Execucomp
Major	Indicators for executive's educational major/subject: Accounting; Business; Economics; Engineering; Finance; Languages and History; Law; Media and Arts; Medicine; Politics; Science; Technology; Statistics; Unknown	Orbis & Execucomp
Borrower Characteristics		
Firm Size	Natural logarithm of a firm's total assets in $M, winsorized at the 1st and 99th percentiles	Orbis
Tangibility	Ratio of tangible fixed assets to total assets, winsorized at the 1st and 99th percentiles	Orbis
Leverage	Ratio of debt to total assets, winsorized at the 1st and 99th percentiles	Orbis
Z-Score	Modified Z-score = (1.2* Working Capital + 1.48* Retained Earnings + 3.3*EBIT + 0.999*Sales) / Total Assets, winsorized at the 1st and 99th percentiles	Orbis
Profitability	Ratio of EBITDA to total assets, winsorized at the 1st and 99th percentiles	Orbis
Public	Dummy equal to 1 if the borrower is listed, 0 if the borrower is private	Orbis
Capacity Difference	Difference between the percent change of revenue and the percent change in employees	Orbis
Loan Characteristics		
Spread	All-in-spread drawn in bps	LPC DealScan
Loan Size	Natural logarithm of tranche size in USD million	LPC DealScan
Maturity	Natual logarithm of the loan maturity in months	LPC DealScan
Secured	Dummy equal to 1 if collateral is attached to the loan, 0 otherwise	LPC DealScan
Senior	Dummy equal to 1 if the loan is senior, 0 otherwise	LPC DealScan
USD Denomination	Dummy equal to 1 if the loan is denominated in USD, 0 otherwise	LPC DealScan
Relationship Loan	Dummy equal to 1 if at leas one of the current lead arrangers has lent to the borrower in the past five years, 0 otherwise	LPC DealScan
Term Loan	Dummy equal to 1 if the loan is secured, 0 otherwise	LPC DealScan
Multiple Tranches	Dummy equal to 1 if the loan belongs to deal which consists of multiple tranches, 0 otherwise	LPC DealScan
Financial Covenants	Dummy equal to 1 if the loan has financial covenants, 0 otherwise	LPC DealScan
Refinance	Dummy equal to 1 if the loan is refinanced, 0 otherwise	LPC DealScan
Performance Pricing	Dummy equal to 1 if the loan includes performance pricing metrics, 0 otherwise	LPC DealScan
Country Characteristics (Borrower)		
Democracy	A country's level of democracy: A higher value indicates more democracy	Economist Intelligence Unit
Financial Development	Financial institutions efficiency index: Higher values indicate more efficient financial institutions	IMF's Financial Development Index Database
Economic Growth	Real GDP growth (Annual percentage change)	World Bank
Country Governance	Control of corruption: Higher values indicate a better control of corruption	World Bank's Worldwide Governance Indicators
Fixed Effects		
Credit Rating	Fixed effects for the borrower's long-term senior debt rating: Prime-Grade; Junk-Grade; Unknown	LPC DealScan
Loan Purpose	Fixed effects for the loan purpose: General Purpose; General Purpose/Refinance; Takeover or Acquisition; Working Capital; Sponsored or Leveraged Buyout; Other Purpose	LPC DealScan
Industry	Indicators for borrower's industry group based on 2 digit-SIC codes	LPC DealScan
Country	Fixed effects for the country of the borrower	LPC DealScan
Year	Fixed effects for the year of the loan signing: 2003-2024	LPC DealScan

Notes: The table provides variable definitions of all variables used within the study. Borrower characteristics have been lagged one year behind (t-1).

11. Appendix B: Further Tables

Table B1: Distribution of Loans by Year

		Fraction of loans raised by firms with		
Year	Number of Loans	Female Executive	Female CFO	Female CEO
2003	89	9.0%	9.0%	1.1%
2004	336	17.0%	15.2%	2.7%
2005	447	10.1%	8.1%	2.5%
2006	1,240	10.4%	8.5%	2.6%
2007	1,590	13.6%	10.5%	3.2%
2008	894	10.6%	9.1%	1.9%
2009	577	12.1%	8.3%	4.0%
2010	927	11.4%	9.0%	3.1%
2011	1,007	11.4%	9.3%	2.6%
2012	883	11.4%	8.2%	4.2%
2013	893	12.3%	9.4%	3.5%
2014	969	13.0%	10.2%	3.1%
2015	889	12.1%	10.0%	3.1%
2016	683	18.4%	12.2%	7.2%
2017	666	12.9%	10.4%	2.6%
2018	724	12.2%	8.1%	4.7%
2019	618	17.8%	14.6%	3.4%
2020	184	13.6%	12.0%	1.6%
2021	73	8.2%	5.5%	2.7%
2022	51	25.5%	17.6%	9.8%
2023	49	28.6%	28.6%	0.0%
2024	17	17.6%	17.6%	0.0%
Total Loans	13,806	13,806	13,806	13,806
Total Female		1,757	1,370	456
% Female		12.7%	9.9%	3.3%

Note: This table shows the total number of loans raised within each year and the fraction of these loans raised by Female executive/ Female CFOs/ Female CEOs. The underlying unit of observation is the loan tranche. Definitions of the variables are provided in Table A1 of Appendix A.

Table B2: Distribution of Loans by Country

		Fraction of loans raised by firms with		
Country	Number of Loans	Female Executive	Female CFO	Female CEO
Argentina	6	0.0%	0.0%	0.0%
Australia	396	19.2%	12.4%	6.8%
Austria	8	0.0%	0.0%	0.0%
Azerbaijan	12	0.0%	0.0%	0.0%
Belarus	3	0.0%	0.0%	0.0%
Brazil	79	1.3%	1.3%	0.0%
Bulgaria	2	100.0%	0.0%	100.0%
Canada	510	10.0%	8.0%	2.0%
Chile	46	0.0%	0.0%	0.0%
China	70	18.6%	18.6%	2.9%
Colombia	13	30.8%	30.8%	0.0%
Cyprus	6	16.7%	16.7%	0.0%
Czech Republic	9	0.0%	0.0%	0.0%
Denmark	6	50.0%	16.7%	33.3%
Egypt	23	0.0%	0.0%	0.0%
Finland	51	3.9%	0.0%	3.9%
France	709	8.3%	5.1%	3.4%
Georgia	4	0.0%	0.0%	0.0%
Germany	445	5.4%	4.5%	0.9%
Hong Kong	53	13.2%	11.3%	1.9%
Hungary	8	0.0%	0.0%	0.0%
India	203	2.5%	1.5%	1.0%
Indonesia	33	12.1%	12.1%	0.0%
Italy	91	5.5%	4.4%	1.1%
Japan	96	3.1%	1.0%	3.1%
Kazakhstan	1	0.0%	0.0%	0.0%
Kuwait	4	0.0%	0.0%	0.0%
Lithuania	5	100.0%	100.0%	0.0%
Malaysia	20	10.0%	10.0%	0.0%
Mexico	127	2.4%	2.4%	0.0%
Netherlands	184	13.0%	10.3%	2.7%
New Zealand	3	0.0%	0.0%	0.0%
Nigeria	9	11.1%	11.1%	0.0%
Norway	95	9.5%	6.3%	3.2%
Pakistan	11	0.0%	0.0%	0.0%
Peru	14	64.3%	57.1%	7.1%
Philippines	21	14.3%	14.3%	0.0%
Poland	26	0.0%	0.0%	0.0%
Portugal	4	0.0%	0.0%	0.0%
Qatar	10	0.0%	0.0%	0.0%
Romania	13	23.1%	23.1%	0.0%
Russian Federation	232	23.7%	23.7%	1.3%
Singapore	92	19.6%	16.3%	9.8%
Slovenia	10	10.0%	10.0%	0.0%
South Africa	42	0.0%	0.0%	0.0%
South Korea	20	10.0%	10.0%	0.0%
Spain	213	21.1%	19.7%	1.9%
Sweden	172	4.7%	4.7%	0.0%
Switzerland	98	1.0%	1.0%	0.0%
Taiwan	327	20.2%	18.7%	6.1%
Thailand	8	12.5%	12.5%	0.0%
Turkey	134	0.0%	0.0%	0.0%
Ukraine	12	100.0%	100.0%	0.0%
United Kingdom	961	20.5%	16.8%	4.1%
United States	8,048	12.8%	9.7%	3.6%
Vietnam	7	0.0%	0.0%	0.0%
Zambia	1	0.0%	0.0%	0.0%
Total Loans	13,806	13,806	13,806	13,806
Total Female		1,757	1,370	456
% Female		12.7%	9.9%	3.3%

Note: This table shows the total number of loans raised within each country and the fraction of these loans raised by female executives/ female CFOs/ female CEOs. The underlying unit of observation is the loan tranche. Definitions of the variables are provided in Table A1 of Appendix A.

Table B3: Distribution of Loans by Industry

Industry	Number of Loans	Fraction of loans raised by firms with		
		Female Executive	Female CFO	Female CEO
Agriculture, Forestry, Fishing	54	9.3%	7.4%	1.9%
Mining	945	8.5%	8.1%	0.3%
Construction	247	3.2%	3.2%	0.0%
Manufacturing	4,833	12.2%	9.4%	3.5%
Transportation, Communications, Electric, Gas, Sanitary Services	1,766	13.4%	10.2%	3.3%
Wholesale Trade	557	8.6%	7.2%	2.9%
Retail Trade	881	16.6%	11.5%	6.4%
Finance, Insurance, Real Estate	2,181	14.0%	10.1%	4.3%
Services	2,321	14.5%	12.2%	2.5%
Public Administration	21	14.3%	14.3%	0.0%
Total Loans	13,806	13,806	13,806	13,806
Total Female		1,757	1,370	456
% Female		12.7%	9.9%	3.3%

Note: This table shows the total number of loans raised within each industry and the fraction of these loans raised by female executives/ female CFOs/ female CEOs. Firms are classified according to their 2 digit-SIC codes. The underlying unit of observation is the loan tranche. Definitions of the variables are provided in Table A1 of Appendix A.

Table B4: Descriptive Statistics (Executive Characteristics)

		CFO		CEO	
Executive characteristics		Number of Loans	Fraction of loans raised by firms with female CFO	Number of Loans	Fraction of loans raised by firms with female CEO
Age	<50	3,417	11.8%	1,410	3.8%
	50 to 65	4,745	8.8%	6,198	4.1%
	>65	200	1.0%	778	0.6%
	Unknown	5,444	10.0%	5,420	2.7%
Experience	<3 years	445	11.9%	2,476	5.2%
	3 to 10 years	2,536	11.5%	6,662	3.1%
	>10 years	2,654	8.8%	4,404	2.7%
	Unknown	8,171	9.7%	264	0.4%
Degree	Bachelor	0	0.0%	0	0.0%
	Master	191	11.5%	49	8.2%
	Ph.D.	39	5.1%	29	0.0%
	Other	3	0.0%	4	50.0%
	Unknown	13,573	9.9%	13,724	3.3%
All Executives		13,806	9.9%	13,806	3.3%

Note: This table provides summary statistics regarding the executives' characteristics. The fourth management characteristic included in the analysis is the major, which is not shown in this table due to the number of different majors considered. The underlying unit of observation is the loan tranche. Definitions of the variables are provided in Table A1 of Appendix A.

Table B5: Correlation Matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)
(1) Female Executive	1.00																													
(2) Female CEO	**0.51**	1.00																												
(3) Female CFO	**0.85**	**0.03**	1.00																											
(4) Equality Score	**0.06**	**0.04**	**0.05**	1.00																										
(5) Equality Income	**0.07**	**0.04**	**0.06**	**0.77**	1.00																									
(6) Equality Politics	**0.06**	**0.03**	**0.05**	**0.97**	**0.74**	1.00																								
(7) Equality Job	**0.06**	**0.04**	**0.04**	**0.95**	**0.81**	**0.92**	1.00																							
(8) Spread (bps)	**-0.05**	**-0.06**	-0.03	**-0.13**	**-0.13**	**-0.15**	**-0.13**	1.00																						
(9) Loan Size $M	0.01	**0.04**	-0.02	**0.03**	**0.04**	**0.04**	**0.04**	**-0.14**	1.00																					
(11) Maturity (Months)	-0.01	**-0.05**	0.01	**-0.10**	**-0.07**	**-0.07**	**-0.10**	**0.08**	**-0.15**	1.00																				
(12) Secured	**-0.05**	**-0.04**	**-0.03**	**0.04**	**0.07**	0.02	**0.07**	**0.39**	**-0.14**	**0.23**	1.00																			
(13) Senior	0.01	0.01	0.01	0.02	0.00	0.02	0.03	**-0.04**	-0.01	**-0.46**	0.00	1.00																		
(14) USD Denomination	0.02	0.03	0.01	**0.22**	**0.19**	**0.15**	**0.28**	**-0.04**	**0.06**	**-0.08**	**0.10**	**0.07**	1.00																	
(15) Relationship Loan	**-0.04**	0.00	**-0.05**	**0.13**	**0.10**	**0.10**	**0.15**	**-0.05**	**0.03**	**-0.04**	**-0.05**	0.01	**0.15**	1.00																
(16) Term Loan	-0.01	**-0.04**	0.01	**-0.21**	**-0.14**	**-0.19**	**-0.22**	**0.22**	**-0.07**	**0.21**	**0.13**	-0.02	**-0.10**	**-0.04**	1.00															
(17) Multiple Tranches	**-0.04**	**-0.08**	-0.01	0.02	0.01	**0.05**	0.02	**0.11**	-0.01	**0.12**	**0.13**	0.01	**-0.14**	0.01	**0.20**	1.00														
(18) Financial Covenants	**-0.05**	-0.03	**-0.04**	**0.19**	**0.18**	**0.13**	**0.21**	**-0.05**	**-0.05**	-0.02	**0.17**	0.02	**0.23**	**0.07**	**-0.08**	**-0.07**	1.00													
(19) Refinance	-0.03	-0.01	-0.01	**0.07**	0.01	**0.06**	0.03	**-0.04**	**-0.06**	**0.08**	**0.10**	0.02	**-0.04**	0.01	-0.01	**0.07**	**0.22**	1.00												
(20) Performance Pricing	-0.01	-0.01	-0.01	**0.19**	**0.17**	**0.14**	**0.20**	**-0.16**	**0.08**	**-0.07**	**0.05**	0.00	**0.18**	**0.12**	**-0.15**	**-0.09**	**0.60**	**0.21**	1.00											
(21) Firm Size $M	**0.05**	**0.04**	**0.04**	**-0.07**	**-0.11**	**-0.06**	**-0.08**	**-0.19**	**0.43**	**-0.15**	**-0.21**	-0.03	**-0.04**	**0.04**	-0.01	-0.01	**-0.14**	**-0.06**	-0.03	1.00										
(22) Tangibility	**0.04**	0.03	0.02	**-0.21**	**-0.22**	**-0.21**	**-0.18**	**0.08**	**-0.04**	**0.03**	0.00	-0.02	-0.02	-0.02	**0.04**	**-0.09**	**-0.06**	-0.03	**-0.07**	**0.10**	1.00									
(23) Leverage	0.00	-0.01	-0.01	**-0.06**	**-0.08**	**-0.03**	**-0.06**	**0.16**	**0.04**	**0.08**	**0.11**	-0.02	0.03	**0.13**	**0.12**	**0.09**	**-0.10**	0.01	**-0.12**	**0.09**	**0.22**	1.00								
(24) Z-Score	**0.05**	**0.06**	0.03	**0.10**	**0.13**	**0.08**	**0.13**	**-0.20**	0.01	-0.02	**-0.09**	0.01	**0.09**	0.02	**-0.11**	-0.02	**0.10**	0.00	**0.14**	**-0.15**	**-0.25**	**-0.33**	1.00							
(25) Profitability	**0.03**	0.01	0.03	0.01	0.00	0.00	**0.04**	**-0.17**	**0.05**	-0.01	**-0.10**	0.02	**0.05**	-0.02	**-0.04**	-0.02	**0.04**	**-0.04**	**0.08**	**-0.04**	**0.05**	**-0.05**	**0.47**	1.00						
(26) Public	0.03	0.01	0.02	-0.02	**0.09**	-0.03	0.00	**-0.07**	0.01	-0.03	**-0.06**	**0.06**	0.03	**0.03**	**-0.03**	0.00	**0.07**	-0.01	**0.06**	**-0.06**	**-0.10**	**-0.21**	**0.09**	**-0.07**	1.00					
(27) Prime Grade	**0.06**	**0.05**	0.03	**0.08**	**0.06**	**0.09**	**0.08**	**-0.40**	**0.27**	**-0.21**	**-0.44**	0.00	0.00	**0.07**	**-0.11**	**-0.17**	0.00	**-0.07**	**0.13**	**0.39**	**0.04**	**-0.04**	**0.08**	**0.09**	0.02	1.00				
(28) Democracy	0.01	0.00	0.00	**0.69**	**0.61**	**0.74**	**0.68**	**-0.06**	0.00	-0.02	**0.07**	-0.01	0.03	**0.12**	**-0.19**	**0.06**	**0.13**	**0.08**	**0.14**	**-0.14**	**-0.10**	0.00	**0.04**	-0.01	0.02	**0.04**	1.00			
(29) Financial Development	**0.04**	0.03	**0.03**	**0.04**	**0.16**	**0.14**	**-0.05**	**-0.14**	**0.05**	**0.06**	**-0.15**	**-0.04**	**-0.17**	**-0.08**	**0.10**	**0.11**	**-0.17**	0.00	**-0.16**	**0.04**	**-0.06**	**0.06**	**-0.07**	**-0.08**	0.01	0.02	**0.13**	1.00		
(30) Economic Growth	0.00	0.03	-0.01	**-0.25**	**-0.17**	**-0.23**	**-0.28**	**-0.09**	0.01	**0.09**	**-0.07**	**0.04**	0.01	-0.01	**0.09**	**0.07**	**-0.06**	**0.04**	**-0.07**	-0.01	0.03	**0.06**	**-0.04**	**-0.06**	0.01	-0.01	**-0.20**	**0.40**	1.00	
(31) Country Governance	**0.05**	**0.04**	**0.03**	**0.77**	**0.79**	**0.77**	**0.73**	**-0.11**	0.02	**-0.05**	0.02	-0.02	-0.02	**0.05**	**-0.18**	**0.05**	**0.13**	**0.08**	**0.14**	**-0.13**	**-0.24**	**-0.10**	**0.06**	**-0.07**	**0.07**	**0.06**	**0.76**	**0.19**	**-0.16**	1.00

Note: This table presents the Spearman pairwise correlations among the main variables. Correlations depicted in bold are significant at the 10% or higher level. Definitions of the variables are provided in Table A1 of Appendix A.

Table B6: Cultural Influence on Loan Spread (Lender Culture)

	Lender Parent Values		Lender Values	
	(1)	(2)	(3)	(4)
Female CFO	-116.855	19.534	-100.355	37.865
	(109.879)	(97.098)	(114.649)	(101.188)
Female CFO x Equality Score	1.368	-0.195	1.176	-0.411
	(1.282)	(1.136)	(1.337)	(1.182)
Equality Score	-1.519 **	0.549	-1.620 **	0.966
	(0.767)	(1.212)	(0.776)	(1.164)
Borrower Characteristics				
Firm Size	-20.259 ***	-18.773 ***	-21.123 ***	-19.537 ***
	(2.872)	(2.695)	(2.862)	(2.679)
Tangibility	-4.748	-3.349	-7.429	-5.000
	(14.475)	(14.881)	(14.592)	(14.955)
Leverage	75.291 ***	70.735 ***	70.984 ***	68.346 ***
	(14.260)	(14.057)	(14.169)	(14.075)
Z-Score	-9.132 ***	-9.238 ***	-9.338 ***	-9.360 ***
	(2.750)	(2.753)	(2.723)	(2.732)
Profitability	-191.674 ***	-183.537 ***	-183.447 ***	-178.977 ***
	(40.509)	(39.492)	(39.694)	(38.913)
Public	-2.690	-6.609	-8.397	-10.319
	(16.782)	(16.107)	(15.672)	(15.427)
Prime Grade	-13.041 **	-13.138 **	-10.823 *	-11.522 **
	(5.938)	(5.915)	(5.830)	(5.818)
Junk Grade	41.995 ***	41.001 ***	41.032 ***	39.780 ***
	(6.463)	(6.511)	(6.354)	(6.407)
Loan Characteristics				
Loan Size	2.842	1.169	3.062	1.711
	(2.285)	(2.126)	(2.279)	(2.139)
Maturity	-13.408 ***	-13.016 ***	-14.309 ***	-13.697 ***
	(3.747)	(3.732)	(3.761)	(3.742)
Secured	49.985 ***	48.334 ***	51.357 ***	49.856 ***
	(6.742)	(6.939)	(6.664)	(6.856)
Senior	-362.701 ***	-381.748 ***	-384.033 ***	-384.948 ***
	(63.450)	(64.785)	(71.274)	(72.957)
USD Denomination	-11.908	-12.952	-11.832	-12.506
	(10.224)	(9.809)	(10.386)	(10.014)
Relationship Loan	-5.315	-7.392 *	-6.465 *	-8.356 **
	(4.006)	(3.877)	(3.863)	(3.792)
Term Loan	39.685 ***	40.882 ***	41.088 ***	42.129 ***
	(4.423)	(4.332)	(4.245)	(4.205)
Multiple Tranches	6.897	6.036	5.555	4.518
	(5.019)	(4.902)	(5.021)	(4.939)
Financial Covenants	4.283	5.337	3.666	4.541
	(5.544)	(5.625)	(5.576)	(5.621)
Refinance	-4.696	-5.324	-2.517	-4.292
	(5.728)	(5.800)	(5.672)	(5.814)
Performance Pricing	-39.464 ***	-39.887 ***	-39.531 ***	-39.718 ***
	(5.068)	(5.130)	(5.082)	(5.131)
Country Characteristics				
Democracy	5.607	16.161	-11.202	-8.182
	(32.975)	(33.565)	(31.015)	(32.076)
Financial development	-1.292	-0.830	-1.864 **	-1.424 *
	(0.859)	(0.852)	(0.777)	(0.770)
Economic growth	2.205	1.769	1.015	1.345
	(6.390)	(6.781)	(6.452)	(6.633)
Country governance	-23.294	-10.847	-21.837	-12.547
	(54.547)	(56.714)	(54.762)	(57.148)
Fixed Effects				
Lender Country	No	No	No	Yes
Lender Parent Country	No	Yes	No	No
Borrower Industry	Yes	Yes	Yes	Yes
Borrower Country	Yes	Yes	Yes	Yes
Loan-Signing Year	Yes	Yes	Yes	Yes
Loan Purpose	Yes	Yes	Yes	Yes
CFO Characteristics	Yes	Yes	Yes	Yes
Adjusted R-squared	0.467	0.478	0.468	0.478
Observations	5,439	5,439	5,367	5,367
Percentage Female	10.17	10.17	10.19	10.19

Note: The dependent variable is the loan spread. The table reveals the influence of the lender's cultural perception of a top executive's gender on the loan spread. Equality Score represents the percentage of respondents who "disagree" or "strongly disagree" with the statement "Men make better business executives than women". Definitions of the variables are provided in Table A1 of Appendix A. The number of observations refers to the number of loan tranches observed. Standard errors are clustered at the firm level. Standard errors are in parentheses. Significance at the 10%, 5%, and 1% levels are indicated by *, **, ***, respectively.

Table B7: Cultural Influence on Loan Spread (Controlling for Lender Fixed Effects)

	(1)	(2)	(3)	(4)
Female CFO	146.286 ***	166.594 ***	195.268 ***	131.197 **
	(39.782)	(53.014)	(39.397)	(65.025)
Female CFO x Equality Score	-1.633 ***	-1.841 ***	-2.166 ***	-1.440 *
	(0.475)	(0.630)	(0.471)	(0.769)
Equality Score	-1.073	3.424 *	-0.252	2.939
	(1.585)	(2.046)	(1.656)	(2.300)
Borrower Characteristics				
Firm Size	-14.914 ***	-14.164 ***	-16.191 ***	-14.461 ***
	(2.349)	(2.411)	(2.388)	(2.116)
Tangibility	-2.368	4.905	-3.830	-0.927
	(11.551)	(12.623)	(11.314)	(11.496)
Leverage	71.221 ***	73.858 ***	64.676 ***	68.973 ***
	(12.787)	(13.520)	(12.817)	(13.728)
Z-Score	-7.953 ***	-8.650 ***	-8.461 ***	-7.743 ***
	(2.478)	(2.467)	(2.494)	(2.546)
Profitability	-166.607 ***	-127.826 ***	-148.151 ***	-124.054 ***
	(34.179)	(35.527)	(34.068)	(37.137)
Public	-1.264	7.322	-3.407	2.828
	(14.571)	(14.764)	(14.253)	(14.045)
Prime Grade	-23.172 ***	-20.830 ***	-18.807 ***	-17.929 ***
	(5.541)	(5.517)	(5.186)	(5.339)
Junk Grade	40.245 ***	37.214 ***	41.992 ***	37.636 ***
	(5.863)	(5.612)	(5.613)	(5.474)
Loan Characteristics				
Loan Size	-0.800	0.397	0.158	0.646
	(1.913)	(1.944)	(2.022)	(1.624)
Maturity	-12.547 ***	-12.689 ***	-12.526 ***	-14.297 ***
	(3.494)	(3.638)	(3.504)	(3.601)
Secured	43.423 ***	46.935 ***	45.602 ***	48.193 ***
	(6.703)	(5.071)	(6.356)	(5.204)
Senior	-421.119 ***	-493.308 ***	-437.246 ***	-496.286 ***
	(73.539)	(63.440)	(73.399)	(64.591)
USD Denomination	-9.485	-5.923	-2.430	4.565
	(7.894)	(8.919)	(8.933)	(7.056)
Relationship Loan	-2.297	-3.079	-3.878	-5.842
	(3.849)	(3.831)	(3.762)	(3.721)
Term Loan	30.751 ***	30.626 ***	33.002 ***	30.100 ***
	(3.781)	(3.623)	(3.504)	(3.541)
Multiple Tranches	11.684 ***	13.017 ***	10.449 **	11.167 ***
	(4.329)	(4.556)	(4.182)	(4.289)
Financial Covenants	7.971	7.172	7.473	3.257
	(5.112)	(5.064)	(5.305)	(5.361)
Refinance	-8.692	-0.972	-4.816	4.569
	(5.780)	(5.337)	(5.645)	(5.277)
Performance Pricing	-32.884 ***	-34.754 ***	-33.816 ***	-33.800 ***
	(4.622)	(4.756)	(4.740)	(5.041)
Country Characteristics				
Democracy	33.266	17.598	-6.402	4.124
	(26.553)	(21.654)	(23.437)	(23.952)
Financial development	-0.862	0.031	-0.845	-0.334
	(0.566)	(0.890)	(0.579)	(1.054)
Economic growth	-1.489	-1.477	3.133	0.352
	(3.812)	(3.491)	(3.674)	(4.647)
Country governance	3.358	-48.327	16.357	-103.573 **
	(37.433)	(37.774)	(37.037)	(49.416)
Fixed Effects				
Lender Country	No	No	Yes	No
Lender Parent Country	Yes	No	No	No
Lender Country X Year	No	No	No	Yes
Lender Parent Country X Year	No	Yes	No	No
Borrower Industry	Yes	Yes	Yes	Yes
Borrower Country	Yes	Yes	Yes	Yes
Loan-Signing Year	Yes	No	Yes	No
Loan Purpose	Yes	Yes	Yes	Yes
CFO Characteristics	Yes	Yes	Yes	Yes
Adjusted R-squared	0.535	0.576	0.578	0.631
Observations	6,507	6,036	6,516	5,684
Percentage Female	9.82	9.71	9.81	9.59

Note: The dependent variable is the loan spread. The table reveals the influence of the cultural perception of a top executive's gender on the loan spread, while controlling for different sets of lender fixed effects. Equality Score represents the percentage of respondents who "disagree" or "strongly disagree" with the statement "Men make better business executives than women". Definitions of the variables are provided in Table A1 of Appendix A. The number of observations refers to the number of loan tranches observed. Standard errors are clustered at the firm level. Standard errors are in parentheses. Significance at the 10%, 5%, and 1% levels are indicated by *, **, ***, respectively.

Table B8: Cultural Influence on Loan Spread (Politics)

Female CFO	112.417 ***
	(36.373)
Female CFO x Equality Score	-1.371 ***
	(0.463)
Equality Score	-0.599
	(1.605)
Borrower Characteristics	
Firm Size	-18.178 ***
	(2.507)
Tangibility	0.365
	(13.032)
Leverage	79.230 ***
	(13.650)
Z-Score	-8.517 ***
	(2.588)
Profitability	-202.476 ***
	(36.670)
Public	4.065
	(15.046)
Prime Grade	-20.438 ***
	(5.772)
Junk Grade	38.599 ***
	(6.080)
Loan Characteristics	
Loan Size	1.163
	(2.060)
Maturity	-15.797 ***
	(3.526)
Secured	53.602 ***
	(6.013)
Senior	-383.508 ***
	(62.245)
USD Denomination	-12.786
	(10.047)
Relationship Loan	-3.550
	(4.398)
Term Loan	36.226 ***
	(4.168)
Multiple Tranches	8.617 *
	(4.686)
Financial Covenants	2.542
	(5.166)
Refinance	-11.093 **
	(5.544)
Performance Pricing	-34.061 ***
	(4.896)
Country Characteristics	
Democracy	27.957
	(24.768)
Financial Development	-1.110 *
	(0.584)
Economic Growth	-2.457
	(3.544)
Country Governance	-37.961
	(35.175)
Fixed Effects	
Borrower Industry	Yes
Borrower Country	Yes
Loan-Signing Year	Yes
Loan Purpose	Yes
CFO Characteristics	Yes
Adjusted R-squared	0.463
Observations	6,516
Percentage Female	9.81

Note: The dependent variable is the loan spread. The table reveals the influence of the cultural perception of a top executive's gender on the loan spread. Equality Score represents the percentage of respondents who "disagree" or "strongly disagree" with the statement "Men make better political leaders than women". Definitions of the variables are provided in Table A1 of Appendix A. The number of observations refers to the number of loan tranches observed. Standard errors are clustered at the firm level. Standard errors are in parentheses. Significance at the 10%, 5%, and 1% levels are indicated by *, **, ***, respectively.

Table B9: Cultural Influence on Loan Spread (Sample Composition)

	No US Loans	Coutnries >=6 Loans to Female CFO
	(1)	(2)
Female CFO	164.084 ***	155.844 ***
	(50.603)	(43.668)
Female CFO x Equality Score	-1.545 **	-1.779 ***
	(0.642)	(0.518)
Equality Score	0.554	-2.917 *
	(1.951)	(1.609)
Borrower Characteristics		
Firm Size	-25.211 ***	-16.037 ***
	(5.440)	(2.237)
Tangibility	2.088	-17.195
	(26.538)	(12.139)
Leverage	91.468 **	73.725 ***
	(36.670)	(13.337)
Z-Score	-12.228	-8.409 ***
	(7.585)	(2.669)
Profitability	-171.319 ***	-176.859 ***
	(58.810)	(35.842)
Public	20.395	-4.319
	(19.880)	(15.297)
Prime Grade	-33.744 ***	-15.988 ***
	(12.710)	(5.292)
Junk Grade	42.369 ***	41.540 ***
	(12.906)	(6.147)
Loan Characteristics		
Loan Size	4.064	-1.275
	(4.693)	(1.732)
Maturity	-10.126	-16.981 ***
	(7.568)	(3.453)
Secured	34.779 *	56.788 ***
	(18.571)	(4.879)
Senior	-388.358 ***	-459.659 ***
	(60.111)	(73.362)
USD Denomination	-22.345 *	0.771
	(13.318)	(6.595)
Relationship Loan	23.544	-8.683 **
	(18.914)	(3.632)
Term Loan	28.679 ***	41.460 ***
	(8.275)	(3.889)
Multiple Tranches	21.346 *	2.633
	(11.236)	(4.080)
Financial Covenants	12.936	3.202
	(15.766)	(5.142)
Refinance	-49.270 **	-3.417
	(20.083)	(4.781)
Performance Pricing	-10.056	-36.611 ***
	(11.516)	(4.704)
Country Characteristics		
Democracy	41.397	25.260
	(27.000)	(16.564)
Financial Development	-0.696	-2.204 ***
	(0.733)	(0.604)
Economic Growth	-2.634	-3.072
	(3.863)	(2.672)
Country Governance	-63.927 *	-16.683
	(36.333)	(38.617)
Fixed Effects		
Borrower Industry	Yes	Yes
Borrower Country	Yes	Yes
Loan-Signing Year	Yes	Yes
Loan Purpose	Yes	Yes
CFO Characteristics	Yes	Yes
Adjusted R-squared	0.438	0.498
Observations	2,006	5,956
Percentage Female	7.73	10.61

Note: The dependent variable is the loan spread. The table reveals the influence of the cultural perception of a top executive's gender on the loan spread using different sample compositionsEquality Score represents the percentage of respondents who "disagree" or "strongly disagree" with the statement "Men make better business executives than women". Definitions of the variables are provided in Table A1 of Appendix A. The number of observations refers to the number of loan tranches observed. Standard errors are clustered at the firm level. Standard errors are in parentheses. Significance at the 10%, 5%, and 1% levels are indicated by *, **, ***, respectively.

Table B10: Cultural Influence on Loan Spread (Additional Ethics Control)

	(1)
Female CFO	137.193 *
	(73.856)
Female CFO x Equality Score	-1.576 *
	(0.867)
Equality Score	-1.332
	(2.058)
Borrower Characteristics	
Capacity Difference	6.702
	(5.998)
Firm Size	-14.282 ***
	(2.166)
Tangibility	-2.803
	(11.814)
Leverage	77.258 ***
	(13.305)
Z-Score	-7.732 ***
	(2.588)
Profitability	-191.685 ***
	(36.275)
Public	4.320
	(18.077)
Prime Grade	-20.327 ***
	(5.454)
Junk Grade	39.104 ***
	(6.156)
Loan Characteristics	
Loan Size	-1.404
	(1.762)
Maturity	-17.814 ***
	(3.491)
Secured	57.328 ***
	(4.933)
Senior	-402.084 ***
	(65.795)
USD Denomination	-1.697
	(7.443)
Relationship Loan	-5.390
	(3.805)
Term Loan	32.094 ***
	(4.031)
Multiple Tranches	8.776 **
	(4.175)
Financial Covenants	3.723
	(5.249)
Refinance	-7.459
	(4.834)
Performance Pricing	-35.380 ***
	(5.017)
Country Characteristics	
Democracy	32.245
	(25.600)
Financial Development	-1.328 **
	(0.653)
Economic Growth	-6.184 **
	(2.845)
Country Governance	-32.499
	(35.842)
Fixed Effects	
Borrower Industry	Yes
Borrower Country	Yes
Loan-Signing Year	Yes
Loan Purpose	Yes
CFO Characteristics	Yes
Adjusted R-squared	0.505
Observations	5,980
Percentage Female	9.43

Note: The dependent variable is the loan spread. The table reveals the influence of the cultural perception of a top executive's gender on the loan spread. Equality Score represents the percentage of respondents who "disagree" or "strongly disagree" with the statement "Men make better business executives than women". Definitions of the variables are provided in Table A1 of Appendix A. The number of observations refers to the number of loan tranches observed. Standard errors are clustered at the firm level. Standard errors are in parentheses. Significance at the 10%, 5%, and 1% levels are indicated by *, **, ***, respectively.

Table B11: Cultural Influence on Loan Spread (Weighting Approaches)

	Original	IPW	Entropy Balancing
	(1)	(2)	(3)
Female CFO	157.951 ***	132.716 ***	121.826 ***
	(41.153)	(47.251)	(36.677)
Female CFO x Equality Score	-1.806 ***	-1.468 ***	-1.384 ***
	(0.491)	(0.560)	(0.437)
Equality Score	-0.527	-2.925 *	0.497
	(1.626)	(1.537)	(1.672)
Borrower Characteristics			
Firm Size	-18.223 ***	-15.551 ***	-17.369 ***
	(2.504)	(2.250)	(2.862)
Tangibility	0.412	-14.517	-4.555
	(13.057)	(12.044)	(12.866)
Leverage	79.581 ***	70.872 ***	55.273 ***
	(13.647)	(13.207)	(15.347)
Z-Score	-8.504 ***	-8.459 ***	-5.712 *
	(2.588)	(2.650)	(3.250)
Profitability	-202.833 ***	-183.138 ***	-228.925 ***
	(36.555)	(35.508)	(39.384)
Public	4.578	-1.801	11.268
	(15.015)	(14.635)	(12.225)
Prime Grade	-20.323 ***	-18.529 ***	-19.026 ***
	(5.756)	(5.334)	(5.996)
Junk Grade	38.739 ***	40.145 ***	40.733 ***
	(6.097)	(6.135)	(6.690)
Loan Characteristics			
Loan Size	1.197	-1.590	1.844
	(2.057)	(1.744)	(2.316)
Maturity	-15.838 ***	-16.131 ***	-20.064 ***
	(3.523)	(3.534)	(5.215)
Secured	53.609 ***	56.301 ***	57.390 ***
	(6.025)	(4.897)	(6.105)
Senior	-383.409 ***	-453.180 ***	-595.417 ***
	(62.130)	(74.013)	(65.925)
USD Denomination	-12.781	-0.006	-7.352
	(10.048)	(6.905)	(7.355)
Relationship Loan	-3.526	-6.363 *	-9.096 **
	(4.391)	(3.818)	(4.419)
Term Loan	36.188 ***	40.687 ***	42.441 ***
	(4.171)	(4.014)	(4.722)
Multiple Tranches	8.693 *	3.557	0.356
	(4.678)	(4.024)	(5.371)
Financial Covenants	2.520	3.849	4.643
	(5.154)	(5.197)	(6.343)
Refinance	-10.987 **	-2.758	-9.167
	(5.589)	(4.892)	(6.190)
Performance Pricing	-34.022 ***	-36.984 ***	-38.150 ***
	(4.897)	(4.670)	(5.217)
Country Characteristics			
Democracy	29.019	23.896	17.240
	(25.659)	(16.893)	(16.698)
Financial Development	-1.182 **	-2.040 ***	-1.248
	(0.565)	(0.606)	(0.771)
Economic Growth	-2.479	-2.038	-6.132 **
	(3.562)	(2.602)	(3.047)
Country Governance	-38.094	-14.966	-28.381
	(34.680)	(39.048)	(45.253)
Fixed Effects			
Borrower Industry	Yes	Yes	Yes
Borrower Country	Yes	Yes	Yes
Loan-Signing Year	Yes	Yes	Yes
Loan Purpose	Yes	Yes	Yes
CFO Characteristics	Yes	Yes	Yes
Adjusted R-squared	0.463	0.496	0.539
Observations	6,516	6,085	6,512
Percentage Female	9.81	10.5	9.81

Note: The dependent variable is the loan spread. The table reveals the influence of the cultural perception of a top executive's gender on the loan spread, using different weighting schemes. Equality Score represents the percentage of respondents who "disagree" or "strongly disagree" with the statement "Men make better business executives than women". Definitions of the variables are provided in Table A1 of Appendix A. The number of observations refers to the number of loan tranches observed. Standard errors are clustered at the firm level. Standard errors are in parentheses. Significance at the 10%, 5%, and 1% levels are indicated by *, **, ***, respectively.

Table B12: Diagnostics for IPW Reweighting

Panel A: Propensity-score overlap (p-score percentiles)		
	Treated	Control
N	690	5,658
p5	0.06	0.03
p50	0.12	0.10
p95	0.27	0.19
Min	0.01	0.01
Max	0.60	0.61

Panel B: Stabilised IPW weights (final estimation sample)	
	Value
N	6,348
Mean	1.00
p95	1.15
p99	1.50
Max	9.55

Panel C: Covariate balance (treated-control mean differences; variance ratios)				
	Mean diff (Raw)	Mean diff (Weighted)	Var. ratio (Raw)	Var. ratio (Weighted)
Firm Size	-0.01	0.00	1.22	1.08
Tangibility	0.05	0.05	1.06	1.07
Leverage	-0.06	0.00	0.94	0.92
Z-Score	0.08	-0.02	0.97	0.87
Profitability	0.08	-0.03	1.12	1.03
Public	0.06	0.03	0.62	0.82
Prime Grade	0.04	0.02	1.03	1.02
Junk Grade	-0.04	-0.02	0.97	0.98

Panel A reports percentiles of the estimated propensity score for treated and control observations and documents common support. Panel B reports the distribution of stabilised inverse probability weights in the final estimation sample. Panel C reports covariate-balance diagnostics: differences in covariate means (treated minus control) and variance ratios (treated/control) before ("Raw") and after ("Weighted") weighting. Values close to zero (mean differences) and close to one (variance ratios) indicate improved balance. Definitions of the variables are provided in Table A1 of Appendix A.

Table B13: Diagnostics for Entropy Balancing

Panel A: Entropy-balancing weights (controls only)	
	Value
N	6,089
Mean	0.11
p95	0.21
p99	0.33
Max	1.02
ESS	4,586

Panel B: Covariate balance (treated–control mean differences; variance ratios)				
	Mean diff (Raw)	Mean diff (Weighted)	Var. ratio (Raw)	Var. ratio (Weighted)
Firm Size	-0.03	-0.03	1.19	1.24
Tangibility	-0.02	-0.03	0.84	1.15
Leverage	-0.02	0.00	0.87	1.16
Z-Score	0.11	0.00	1.00	0.95
Profitability	0.01	0.00	1.09	1.10
Public	-0.02	0.20	1.09	13.07
Prime Grade	0.00	0.04	1.01	0.94
Junk Grade	0.00	0.00	1.00	1.00

Note:This table reports diagnostics for the entropy-balancing reweighting procedure used as a robustness check. Panel A summarises the distribution of the entropy-balancing weights for the control group (male CFO firms) in the final estimation sample and reports the implied effective sample size (ESS). Panel B reports covariate-balance diagnostics comparing treated (female CFO) and control observations: differences in covariate means (treated minus control) and variance ratios (treated/control) before ("Raw") and after ("Weighted") applying entropy-balancing weights. Mean differences close to zero and variance ratios close to one indicate improved balance. The listing indicator ("Public") remains imbalanced after weighting in this specification; all outcome regressions include a public-firm control and the full set of fixed effects. Definitions of variables are provided in Table A1 of Appendix A.