

Do Female CEOs and Chairs Constrain Bank Risk-Taking? Evidence from the Financial Crisis [☆]

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Abstract

This paper exploits a large panel of U.S. commercial banks to examine the association between Chief Executive Officer (CEO) and Chairperson gender and bank risk-taking during the recent financial crisis. Given the documented gender-based differences in conservatism and risk tolerance, we postulate that female executives may constrain excessive risk-taking in commercial banks, and may thereby reduce default risk during periods of market stress. The results indicate that banks with female CEOs are more conservative and hold higher levels of equity capital. The positive relationship between female CEOs and capital ratios is strongest in smaller banks, and weak or non-existent in larger banks. Furthermore, while neither CEO nor Chair gender is related to bank failure in general, we find strong evidence that small banks with female CEOs and Chairwomen were less likely to fail during the financial crisis. These findings are consistent with the view that gender differences in risk tolerance and conservatism may have important implications for corporate decision-making and governance mechanisms.

JEL classification: G01, G21, G30, G32

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[☆] The views expressed in this paper are those of the authors alone and do not necessarily reflect the views of the Office of the Comptroller of the Currency (OCC) or the U.S. Department of the Treasury.

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1. Introduction

“Maleness has become a synonym for insufficient attentiveness to risk.” (Christopher Caldwell in *Time*, 2009, Vol. 174, No. 7, p. 13)

Women and men often act and behave somewhat differently. It has been widely documented in the cognitive psychology and behavioral economics literature that significant gender-based differences exist, for instance, in information processing, diligence, conservatism, overconfidence, and risk tolerance (see e.g., Levin et al., 1988; Feingold, 1994; Powell and Ansic, 1997; Byrnes, Miller and Schafer, 1999; Costa, Terracciano and McCrae, 2001; Eckel and Grossman 2002; Nettle 2007; Schmitt, Realo, Voracek and Allik, 2008; Croson and Gneezy, 2009). In this paper, we presume that the gender-based behavioral differences between women and men are reflected in the decisions that top executives and directors make, and therefore may influence the firm’s business strategies and governance and monitoring practices.¹ More specifically, given that women are generally more conservative, less overconfident, and less inclined to take extreme risks, we postulate that female executives and directors may better perceive potential biases in strategy formulation and risk assessments, and ultimately, constrain excessive risk-taking by their firms.

The purpose of this paper is to investigate whether female Chief Executive Officers (CEOs) and Chairwomen constrain risk-taking in commercial banks. In particular, we exploit a large panel of U.S. commercial banks to empirically examine the association between the gender of the bank’s top executives and its capital ratios and default risk

¹ Considerable empirical evidence suggests that the characteristics of individual executives may affect corporate decisions and performance (see e.g., Bertrand and Schoar, 2003; Malmendier and Tate, 2005; Graham, Harvey and Puri, 2010; Malmendier, Tate and Yan, 2011).

during the recent financial crisis. Since the financial crisis has been often attributed to excessive risk-taking by banks, and was characterized by numerous bank failures and bailouts, we consider this period of severe financial turmoil to provide a convenient setting to examine the potential effects of female executives and directors on risk-taking in the banking industry. If the documented gender-differences in conservatism and risk aversion influence the bank's business strategies, product compositions, and loan pricing decisions, we should observe that the banks with female CEOs and Chairwomen are associated with higher capital ratios and lower default risk amidst the financial crisis. While we expect banks with female CEOs and Chairwomen to make more conservative decisions and to hold higher capital also outside the crisis periods, such actions are less likely to have negative consequences because risky investments are less likely to go bad in good times. Therefore, to the extent that bank conservatism reduces the likelihood of bank failure, we are more likely to identify this effect in the crisis period and, consequently, our analysis focuses on the years surrounding the recent financial crisis.

The implications of gender-based behavioral differences for financial decisions-making have received increasing attention in the literature over the last ten years. In general, the prior literature suggests that women are more conservative and risk averse than men, and exhibit less risky behavior in financial decisions. Levin et al. (1988), Johnson and Powell (1994), Powell and Ansic (1997), Eckell and Grossman (2002), Gysler, Brown Kruse and Schubert (2002), and Fehr-Duda, de Gennaro and Schubert (2006) conduct experiments to examine gender differences in financial decisions, and report that women try to avoid losses and are more cautious and less overconfident in

taking risks.² Gender differences in conservatism, risk tolerance, and overconfidence are documented to affect real financial decisions in a natural environment. Jianakoplos and Bernasek (1998), Sunden and Surette (1998), Barber and Odean (2001), Dwyer, Gilkeson and List (2002), Agnew, Balduzzim and Sunden (2003), and Watson and McNaughton (2007) analyze household investment portfolios and retirement accounts. In brief, the results of these empirical studies indicate that women hold less risky portfolios, follow more conservative investment styles, and trade less frequently than men.

Furthermore, behavioral differences between women and men may affect financial decisions also in a professional setting. Atkinson, Baird and Frye (2003) and Niessen and Ruenzi (2007) examine whether the gender of mutual fund managers influences the performance and risk characteristics of the funds. Using a sample of U.S. fixed-income funds, Atkinson et al. (2003) do not find any significant differences between female and male fund managers in investment behavior and fund performance. Niessen and Ruenzi (2007), in contrast, document that female equity fund managers are more risk averse, follow less extreme investment strategies, and trade less than male fund managers. Beck, Behr and Guttler (2009) investigate the implications of gender differences in banking context. They compare loan decisions made by female and male loan officers, and report that the loans handled by females have significantly lower default rates. Krishnan and Parsons (2008), Barua, Davidson, Rama and Thiruvadi (2010), and Elsaid and Ursel (2011) focus on effects of female executives and senior managers on corporate decisions

² Croson and Gneezy (2009) provide a comprehensive review of gender differences in economic experiments.

and outcomes.³ The findings reported in Krishnan and Parsons (2008) and Barua et al. (2010) indicate that firms with female executives and top managers make more cautious and conservative decisions with respect to financial reporting practices. Most related to our study, Elsaid and Ursel (2011) examine the influence of female CEOs on firm risk-taking, and document that firm-level risk-taking decreases after appointments of female CEOs.

Given the central role of banks in the financial crisis, it is not surprising that several studies have recently focused on the relationships between bank performance, corporate governance, and risk-taking at the onset and during the crisis. Beltratti and Stulz (2010) examine bank stock returns in the midst of the market turmoil. They document that larger banks with shareholder-friendly boards, lower capital ratios and lower amounts of deposits had the lowest stock returns over the period from July 2008 to December 2009. Dietrich and Wanzenried (2011) investigate the profitability of Swiss commercial banks around the crisis. Their findings indicate that bank profitability in the midst of the crisis is negatively associated with bank size and the amount of loan loss provisions and is positively related to the level of income diversification, growth rate of lending activities, and state ownership. The relationship between bank characteristics and realized bank distress during the crisis is examined in Altunbas, Manganelli and Marques-Ibanez (2011). Using a large panel of U.S. and European banks, they document that smaller

³ Several studies have recently examined the relationship between firm performance and female representation on the board of directors. The empirical evidence on the effects of female directors is mixed. While Carter, Simkins and Simpson (2003), Erhardt, Werbel and Shrader (2003), and Campbell and Minguez-Vera (2008) document that gender diversity of the board is positively associated with profitability and market valuation, the results of Rose (2007) and Adams and Ferreira (2009) indicate that effect of female directors on firm performance is insignificant or even negative.

banks with higher capital ratios, larger deposit base, and more income diversification were less distressed during the crisis.

Fortin, Goldberg and Roth (2010) analyze bank risk-taking at the onset of the financial crisis, and report that banks with powerful CEOs who have high base salaries were associated with lower risk-taking before the outbreak of the crisis. The association between CEO stock ownership and compensation incentives and bank performance is examined in Fahlenbrach and Stulz (2011). Their results suggest that the worst-performing banks had larger CEO ownership, and that the performance of banks amidst the crisis is unrelated to managerial option compensation and cash bonuses. Finally, Erkens, Hung and Matos (2010) and Peni and Vahamaa (2011) investigate the effects of corporate governance mechanisms on bank performance during the crisis. Erkens et al. (2010) document that banks with more independent boards and larger institutional ownership had lower stock returns, while Peni and Vahamaa (2011) find that banks with strong corporate governance practices had lower stock market valuations amidst the crisis. The results of Erkens et al. (2010) and Peni and Vahamaa also indicate that banks with strong corporate governance attributes were associated with higher risk-taking and lower capital ratios at the onset of the financial crisis. In this paper, we aim to extend the above literature by examining the association between female CEOs and Chairwomen and bank risk-taking during the financial crisis.

The empirical findings reported in this paper demonstrate that the behavioral differences between women and men may have important implications for corporate decisions and outcomes. Specifically, using a large panel of U.S. commercial banks from 2006 to 2010, we find considerable evidence to suggest that female executives and

directors may constrain risk-taking in the banking industry. Our results indicate that banks with female CEOs are more conservative and hold higher levels of equity capital. The positive relationship between female CEOs and capital ratios, however, is strongest in smaller banks, and weak or nonexistent in larger banks. Furthermore, we document a negative association between female CEOs and Chairwomen and bank default risk. Although neither CEO nor Chair gender is related to bank failure in general, we find strong evidence that smaller banks with female CEOs and Chairwomen were less likely to fail during the financial crisis. Overall, the empirical findings are consistent with our research hypothesis, and provide support for the view that that female executives and directors may inherently promote more conservative business strategies and less risky investment decisions.

The rest of this paper proceeds in the following manner. Section 2 describes the data on U.S. commercial banks and presents the methodology used in the analysis. Our empirical findings on the effects of female CEOs and Chairwomen on bank conservatism and default risk are reported in Section 3. Finally, Section 4 summarizes the results and provides concluding remarks.

2. Data and methods

The data used in the empirical analysis cover a large sample of U.S. commercial banks over the years 2007–2010. The data on executive and Chair names are manually

gathered from SNL snapshots in June 2007, 2008, 2009, and 2010.⁴ We code CEOs and Chairs as a male or female through a manual process based on their names. In case of unisex names, a majority of at least 80 % of the name holders were required to be of one gender before the executive gender was coded.⁵ Unclear cases, for example names of foreign origin, were excluded from the final sample. Bank financial data is obtained from statements of income and condition (i.e. bank call reports). While financial data is available on a quarterly basis, our CEO and Chair data is collected on an annual basis and, thus, we match our SNL snapshot data to 4th quarter financial statement data. After excluding the observations with insufficient data, we obtain a total sample of 22,976 observations. Table 1 presents the descriptive statistics of the sample.

 Insert Table 1 about here.

As can be seen from Table 1, only 5.43% of the commercial banks included in the estimated sample have a female CEO. In a similar vein, 5.74 % of the sample banks have female Chairs, while 9.39 % of the banks have either a female CEO or Chair. The share of female CEOs and Chairs is consistent with the reported findings on the executive and Chair gender in the non-banking firms (see e.g., UC Davis, 2009; Connor, 2010; Monaghan, 2010; Tutchell & Edmonds, 2011). Interestingly, CEO duality is rather common also in the banking firms, since in 35.31 % of the sample banks the same person

⁴ Though SNL provides up-to-date data on CEO names and Chair names for commercial banks, they do not provide historical samples from which panel data-sets can be constructed. To obtain our panel, we collected snapshots of the data in June of each year of the sample, i.e. 2007, 2008, 2009, and 2010.

⁵ The unclear names were coded based on <http://www.genderchecker.com> and <http://www.nameplayground.com>. The latter website offers percentages for the popularity of a given name in both genders. For example, name Pat is 39.74 % male and 60.26 % female and, thus, people named Pat were excluded from the sample.

holds the CEO and Chair positions. As can be seen from Table 2, the female executives and Chairs are slightly more common in the smaller banks than in the large banks (6.11% female CEOs and 6.59 % of female Chairs in small banks and 4.82 % and 4.97 % of females in the larger banks, respectively).

Table 2 reports the results of univariate tests of capital levels for female and male CEO or Chair banks. Panel A of the table documents the test results for the whole sample, while in Panel B the sample banks are divided into two groups; small and large banks.⁶ In general, the univariate tests indicate that banks with female CEOs or Chairs have higher capital, which is in line with the literature indicating that the females are more risk-averse and conservative than men (see e.g., Powell & Ansic, 1997; Jianakoplos & Bernasek, 1998; Byrnes, Miller & Schafer, 1999).

 Insert Table 2 about here.

Table 3 of the paper presents pairwise correlations for the key variables used in the empirical analysis. In general, the correlations are rather modest. Low equity to assets is naturally positively correlated with the tier-1 capital ratio (0.562). Interestingly, the unemployment rate correlates positively with delinquent loans (0.291). Finally, there is a positive correlation between the female CEOs and female Chairs (0.279), which is likely mainly due to the rather common CEO duality.

 Insert Table 3 about here.

⁶ We define large versus small based on the median for all commercial banks. Note that the samples will not necessarily be identical in size since our sample only includes banks.

To examine the relation between CEO and Chair gender and bank conservatism during the recent financial crisis, the following panel regression is estimated:

$$\begin{aligned}
 CR_{j,t} = & \alpha + \beta_1 Size_{j,t-1} + \beta_2 Loan\ growth_{j,t-1} + \beta_3 Core\ deposits_{j,t-1} + \beta_4 Delinquent\ loans_{j,t-1} \\
 & + \beta_5 Subchapter\ S_{j,t-1} + \beta_6 MBCH_{j,t-1} + \beta_7 Unemployment_{j,t} + \beta_8 PCI_{j,t} + \beta_9 Dual_{j,t} \\
 & + \beta_{10} CEO_{j,t} + \beta_{11} CHAIR_{j,t} + \beta_{12} CEO\ or\ Chair_{j,t} + \sum_{y=2008}^{2010} \omega_y YEAR_j^y + \varepsilon_{j,t}
 \end{aligned}
 \tag{1}$$

where $CR_{j,t}$ denotes one of the alternative capital ratio measures (capital ratio or high capital) for bank j at time t . *Capital ratio* is measured as tier-1 capital scaled by assets less disallowed intangibles, and *High capital* is the capital ratio for the top 50th percentile banks. $Size_{j,t}$ is measured as the logarithm of total assets, $Loan\ growth_{j,t}$ is the logarithm of loan growth, $Core\ deposit_{j,t}$ is the core deposit ratio, measured as the ratio of all deposits other than deposits in large time-deposit and large-brokered deposit accounts, $Delinquent\ loans_{j,t}$ is the ratio of loans at least 90 days past due or in nonaccrual status to total loans, $Subchapter - S_{j,t}$ is a binary variable indicating whether a bank is organized under the subchapter-S for tax purposes, $MBHC_{j,t}$ is a dummy variable denoting whether the bank is affiliated with a multibank holding company, $Unemployment_{j,t}$ is the state unemployment rate, $PCI_{j,t}$ is the state per-capita income, $Dual_{j,t}$ is a binary variable which gets a value of one if the CEO and Chair positions are held by the same person, $CEO_{j,t}$ is assigned to one if the bank has a female CEO, $Chair_{j,t}$ is a binary variable which gets a value of one if the bank has a female Chairperson, $CEO\ or\ Chair_{j,t}$ is assigned to one if the CEO or Chair of the examined bank is female, and $Year_j^y$ is a dummy variable indicating fiscal years.

The control variables are selected based on the earlier literature. Bank size is included in the model since larger banks have been suggested to hold less capital and engage in more risky operations (Jokipii & Milne, 2011). Moreover, Becker, DeFond, Jiambalvo and Subramanyam (1998) argue that firm size may act as a surrogate for numerous omitted variables. Loan growth is an indicated to be an important driver of bank riskiness (Foos, Norden & Weber, 2010), core deposit ratio is used as a measure of reliable funding source, and delinquent loans quantifies the amount of problem loans. Subchapter-S and MBHC variables control for the organizational setting of the bank, and unemployment and PCI are included in the regressions to measure local economic conditions.

3. Results

The results for the multivariate tests are reported in Table 4. As the table indicates, the control variables appear as expected and are mainly statistically significant. Bank size is negatively associated with the capital ratios, which is in line with the too-big-to-fail belief and with the smaller banks having more difficulties in accessing the capital markets (see e.g., Jokipii & Milne, 2011). Loan growth rate has a positive relationship with capital ratio, while in the models with high capital as a dependent variable the loan growth does not have a significant impact on the dependent variable. Subchapter-S banks are negatively related with the capital measures, while multibank holding companies and PCI have a negative impact on high capital. Unemployment rate is positively associated with the level of equity capital. Interestingly, the reported results indicate that the female

CEOs have a statistically significant and positive impact on the capital ratios, thereby implying that the banks with female CEOs hold higher levels of capital. In contrast, the Chair gender does not seem to have a significant impact on bank capital ratios. Moreover, also CEO duality is suggested to have a positive relationship with the capital ratios.

Insert Table 4 about here.

The results for the additional multivariate analyses are tabulated in table 5. In particular, this table introduces the results for models including interactions between female variables and firm size. The control variables appear as in Table 4. The variables of interest are the interactions between female dummies and bank size. The results of these additional analyses indicate that the impact of female CEOs on capital ratios is positive and significant in the smaller banks.

Insert Table 5 about here.

Table 6 reports the results for univariate tests for failure within the next year for female and male CEO/Chair banks. Failure during the next year is defined according to the Federal Deposit Insurance Corporation (FDIC) list of bank failures and assistance actions. These results indicate that, in general, the banks with female CEOs or Chairs fail less frequently, but the difference is not statistically significant. Panel B of the table compares the losses in small and large banks and reports that, when smaller banks are

considered, the failure within the next year is rarer if the bank has a female CEO or Chair, and the finding is significant at the 10 % level. The results for univariate tests in large banks are not statistically significant.

Insert Table 6 about here.

The results for multivariate tests for bank failure within the next year are tabulated in table 7. These findings are in line with table 6, thereby indicating that the smaller banks with female CEOs and Chairs are less likely to fail within a year than the banks with male executives and Chairs. In large banks, the CEO or Chair gender does not seem to impact the probability of a failure.

Insert Table 7 about here.

Overall, the results reported in this paper indicate that the bank CEO and Chair gender has an impact on the capital ratios and the probability of a failure. In particular, the findings suggest that the smaller banks with female CEOs have higher capital ratios and they are less likely to fail within the next year. These results are in line with the earlier literature documenting gender-based differences for example in risk aversion, conservatism, and overconfidence, thereby indicating that the executive and Chair gender may have a significant impact also in the banking industry.

A more thorough discussion on the results, additional tests, and limitations are to be added here.

4. Conclusions

The purpose of this paper is to examine the relationship between CEO and Chair gender and risk-taking in the U.S. commercial banks during the recent financial crisis. Considering the well-documented gender-based differences for example in risk aversion and conservatism, it is conceivable that female executives and board Chairs may constrain bank risk-taking. Since the recent financial turmoil was mainly caused by excessive risk-taking by banks, it is of interest to examine whether the bank default risk is affected by the CEO or Chair gender.

The results reported in this paper indicate that banks with female CEOs are more conservative and in general hold higher levels of equity. Interestingly, the positive relationship between female CEOs and capital ratios is significant only in the small banks. Moreover, the reported results suggest that small banks with female CEOs or Chairs were less likely to fail within the next year.

The findings of this paper are supported by the higher risk aversion and conservatism of women. Overall, the results are in line with the policies of many individual countries and the European Union on gender quotas at the executive level.

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Table 1. Descriptive statistics.

Panel A: Gender Variables								
variable	N	mean	sd	min	p25	p50	p75	max
Female CEO	22981	5,43 %	22,66 %	0,00 %	0,00 %	0,00 %	0,00 %	100,00 %
Female Chair	22981	5,74 %	23,26 %	0,00 %	0,00 %	0,00 %	0,00 %	100,00 %
Female CEO or Chair	22981	9,39 %	29,16 %	0,00 %	0,00 %	0,00 %	0,00 %	100,00 %
Panel B: Firm Financial Variables								
variable	N	mean	sd	min	p25	p50	p75	max
Capital Ratio (tier-1)	22981	10,10 %	4,09 %	0,02 %	8,15 %	9,24 %	11,06 %	96,82 %
High Capital Ratio	22981	47,20 %	49,90 %	0,00 %	0,00 %	0,00 %	0,00 %	100,00 %
Failure in Next Year	22981	1,18 %	10,80 %	0,00 %	0,00 %	0,00 %	0,00 %	100,00 %
Log Assets	22981	12,01	1,31	6,91	11,18	11,89	12,67	21,28
Change in Log Assets (1-Yr)	22979	0,06	0,16	(0,28)	(0,03)	0,04	0,11	1,33
Ratio of Delinquent Loans	22981	1,60 %	2,31 %	0,00 %	0,27 %	0,84 %	1,96 %	32,70 %
Return on Assets	22981	0,44 %	1,69 %	-24,94 %	0,19 %	0,75 %	1,20 %	24,68 %
Ratio of Core Deposits	22981	82,58 %	11,64 %	0,00 %	76,59 %	84,13 %	90,62 %	100,00 %
Panel C: Other Variables								
CEO Duality (CEO=Chair)	22976	35,31 %	47,79 %	0,00 %	0,00 %	0,00 %	100,00 %	100,00 %
Unemployment (state)	22981	7,11	2,42	2,63	5,10	7,10	8,90	14,90
Per Capita Income (state)	22981	38,82	4,25	30,09	35,59	38,54	41,97	70,64
Subchapter-S	22981	35,10 %	47,73 %	0,00 %	0,00 %	0,00 %	100,00 %	100,00 %
MBHC	22981	19,70 %	39,77 %	0,00 %	0,00 %	0,00 %	0,00 %	100,00 %

The table reports the descriptive statistics for the sample. Female CEO and Female Chair are binary variables for the CEO and Chair gender, respectively. Capital ratio denotes tier-1 capital scaled by assets less disallowed intangibles and High Capital Ratio denotes top 50th percentile capital ratio. Failure in the next year is defined according to the FDIC list of bank failures and assistance actions. Assets are measured in thousands of dollars and the ratio of delinquent loans denotes loans at least 90 days past due or in nonaccrual status. Return on Assets indicates the ratio of net income to assets and the ratio of core deposits denotes the ratio of non-large time deposits and brokered deposits (i.e. below 100k prior to 2009 and below 250k in 2010). CEO duality indicates a CEO who is also the board Chair. Unemployment and Per Capita Income measure local economic conditions. Finally, subchapter-S indicates the bank is organized under the subchapter-S for tax purposes and MBHC indicates the bank is affiliated with a multi-bank holding company.

Table 2. Univariate tests part 1.

Panel A											
Bank Size	Variable	MALE CEO	FEMALE CEO		MALE CHAIR	FEMALE CHAIR		MALE CEO and CHAIR	FEMALE CEO or CHAIR		
All	Capital Ratio	N=21 782 10,07 %	N=1 252 10,68 %	0,61 % ***	N=21 711 10,07 %	N=1 323 10,54 %	0,46 % ***	N=20 873 10,05 %	N=2 161 10,56 %	0,50 % ***	
	High Capital Ratio	46,83 %	53,59 %	6,76 % ***	46,97 %	50,94 %	3,97 % ***	46,69 %	52,15 %	5,46 % ***	
Panel B											
	Variable	MALE CEO	FEMALE CEO		MALE CHAIR	FEMALE CHAIR		MALE CEO and CHAIR	FEMALE CEO or CHAIR		
Small	Capital Ratio	N=10 337 10,95 %	N=673 11,75 %	0,80 % ***	N=10 284 10,98 %	N=726 11,27 %	0,29 %	N=9 839 10,95 %	N=1 171 11,43 %	0,48 % ***	
	High Capital Ratio	57,89 %	66,12 %	8,23 % ***	58,28 %	59,92 %	1,63 %	57,89 %	62,60 %	4,70 % ***	
Large	Capital Ratio	N=11 445 9,27 %	N=579 9,44 %	0,17 % ***	N=11 427 9,26 %	N=597 9,65 %	0,39 % ***	N=11 034 9,25 %	N=990 9,52 %	0,27 % ***	
	High Capital Ratio	36,85 %	39,03 %	2,19 % ***	36,79 %	40,03 %	3,24 %	36,70 %	39,80 %	3,10 % *	

The table reports the univariate tests for the capital levels for female and male CEO/Chair banks. *Capital ratio* is defined as tier-1 and *High capital ratio* is defined as a capital ratio in the top 50th percentile. ***, **, and * denote significance at the 0.01, 0.05, and 0.10 levels, respectively.

Table 3. Correlation matrix.

	Capital Ratio	High Capital Ratio	Log Assets	Change in Log Loans	Delinquent Loans	Unemp Rate	Per Capita Income	Subchapter S Status	MBHC	Core Deposit Ratio	CEO - Chair	Female CEO	Female Chair	Female CEO or Chair
Capital Ratio	100,0%													
Low Equity to Assets	56,2%	100,0%												
Log Assets	-22,7%	-23,3%	100,0%											
Change in Log Loans	6,7%	1,7%	5,3%	100,0%										
Delinquent Loans	-19,1%	-12,6%	13,6%	-22,5%	100,0%									
Unemployment Rate	-4,1%	0,2%	13,6%	-14,1%	29,1%	100,0%								
Per Capita Income	-2,1%	-3,3%	3,8%	3,6%	0,3%	-7,0%	100,0%							
Subchapter-S	-3,0%	-2,2%	-21,6%	-6,7%	-9,4%	-13,7%	0,7%	100,0%						
MBHC	-3,7%	-8,7%	13,5%	-1,2%	-2,2%	-5,2%	-1,6%	-8,5%	100,0%					
Core Deposit Ratio	-7,1%	2,2%	-13,3%	-17,2%	-5,9%	3,3%	10,0%	9,0%	-0,7%	100,0%				
Ceo-Chair	4,1%	3,6%	-0,6%	-2,0%	-2,6%	-6,2%	1,0%	7,5%	-2,4%	1,1%	100,0%			
Female CEO	3,5%	3,1%	-4,4%	-1,2%	0,3%	2,4%	-0,5%	-0,5%	0,1%	1,4%	-4,4%	100,0%		
Femal Chair	2,7%	1,9%	-6,1%	-2,2%	-1,3%	-0,2%	-4,1%	2,5%	-1,5%	1,3%	-5,2%	27,9%	100,0%	
Female CEO or Chair	3,6%	3,2%	-6,4%	-2,0%	-0,4%	1,5%	-2,8%	1,2%	-0,4%	1,4%	-13,4%	74,5%	76,7%	100,0%

The table reports pairwise correlations for the key variables used in the empirical analysis.

The table reports the regression results of capital variables on CEO/Chair gender variables and controls. ***, **, and * denote significance at the 0.01, 0.05, and 0.10 levels, respectively.

Table 5. Multivariate tests part 2.

Dependent Variable	(1) Capital Ratio	(2) Capital Ratio	(3) Capital Ratio	(4) Capital Ratio	(5) High Capital	(6) High Capital	(7) High Capital	(8) High Capital
					**	**	**	**
Log Assets	-0,0075 *** (0,00)	-0,0076 *** (0,00)	-0,0075 *** (0,00)	-0,0075 *** (0,00)	-0,4130 * (0,02)	-0,4209 * (0,02)	-0,4144 * (0,02)	-0,4131 * (0,02)
Log Loan Growth	0,0057 ** (0,00)	0,0057 ** (0,00)	0,0058 ** (0,00)	0,0059 ** (0,00)	0,0724 (0,07)	0,0701 (0,07)	0,0717 (0,07)	0,0776 (0,07)
Core-Deposit Ratio	-0,0227 ** (0,01)	-0,0225 ** (0,01)	-0,0228 ** (0,01)	-0,0227 ** (0,01)	0,0378 (0,21)	0,0484 (0,21)	0,0366 (0,21)	0,0416 (0,21)
					- **	- **	- **	- **
Delinquent Loan Ratio	-0,3245 *** (0,03)	-0,3247 *** (0,03)	-0,3244 *** (0,03)	-0,3245 *** (0,03)	10,4307 * (1,30)	10,4266 * (1,30)	10,4311 * (1,30)	10,4305 * (1,30)
					**	**	**	**
Subchapter-S	-0,0067 *** (0,00)	-0,0067 *** (0,00)	-0,0067 *** (0,00)	-0,0067 *** (0,00)	-0,3764 * (0,05)	-0,3771 * (0,05)	-0,3772 * (0,05)	-0,3763 * (0,05)
					**	**	**	**
MBHC	-0,0006 (0,00)	-0,0005 (0,00)	-0,0006 (0,00)	-0,0006 (0,00)	-0,3604 * (0,06)	-0,3562 * (0,06)	-0,3600 * (0,06)	-0,3590 * (0,06)
Unemployment Rate	0,0008 ** (0,00)	0,0008 ** (0,00)	0,0008 ** (0,00)	0,0008 ** (0,00)	0,0226 (0,01)	0,0232 * (0,01)	0,0225 (0,01)	0,0231 * (0,01)
PCI	0,0000 (0,00)	0,0000 (0,00)	0,0000 (0,00)	0,0000 (0,00)	-0,0134 ** (0,01)	-0,0134 ** (0,01)	-0,0133 ** (0,01)	-0,0132 ** (0,01)
					**	**	**	**
CEO/Chair Duality	0,0045 *** (0,00)	0,0045 *** (0,00)	0,0045 *** (0,00)	0,0048 *** (0,00)	0,1789 * (0,05)	0,1753 * (0,05)	0,1787 * (0,05)	0,1881 * (0,05)
					**	**	**	**
Female CEO x Small Bank	0,0094 *** (0,00)		0,0091 *** (0,00)		0,3920 * (0,13)		0,4027 * (0,14)	
Female CEO x Large Bank	-0,0001 (0,00)		-0,0008 (0,00)		-0,0060 (0,13)		-0,0225 (0,14)	
Female Chair x Small Bank		0,0039 (0,00)	0,0014 (0,00)			0,0654 (0,13)	-0,0373 (0,13)	

Female Chair x Large Bank		0,0023 (0,00)	0,0026 (0,00)			0,0446 (0,14)	0,0551 (0,14)	
Female CEO or Chair x Small Bank				0,0069 *** (0,00)				0,2562 ** (0,10)
Female CEO or Chair x Large Bank				0,0015 (0,00)				0,0579 (0,10)
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	22976	22976	22976	22976	22976	22976	22976	22976
Adjusted R-Square/P-R Square	8,51 %	8,40 %	8,51 %	8,50 %	5,72 %	5,65 %	5,72 %	5,70 %
F Statistic/Chi-Sq Statistic P-Value	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

The table reports the regression results of capital variables on CEO/Chair gender variables (interacted with firm size) and controls. ***, **, and * denote significance at the 0.01, 0.05, and 0.10 levels, respectively.

Table 6. Univariate tests part 2.

Panel A										
Bank Size	Variable	MALE CEO	FEMALE CEO		MALE CHAIR	FEMALE CHAIR		MALE CEO and CHAIR	FEMALE CEO or CHAIR	
All	Fail in 1 Year	N=21 782 1,20 %	N=1 252 0,96 %	-0,24 %	N=21 711 1,20 %	N=1 323 0,98 %	-0,22 %	N=20 873 1,20 %	N=2 161 1,06 %	-0,14 %
Panel B										
	Variable	MALE CEO	FEMALE CEO		MALE CHAIR	FEMALE CHAIR		MALE CEO and CHAIR	FEMALE CEO or CHAIR	
Small	Fail in 1 Year	N=10 337 0,59 %	N=673 0,15 %	-0,44 %	N=10 284 0,59 %	N=726 0,14 %	-0,46 %	N=9 839 0,61 %	N=1 171 0,17 %	-0,44 % *
Large	Fail in 1 Year	N=11 445 1,76 %	N=579 1,90 %	0,14 %	N=11 427 1,75 %	N=597 2,01 %	0,26 %	N=11 034 1,73 %	N=990 2,12 %	0,39 %

The table presents the univariate tests for failure within next year for female and male CEO/Chair banks. ***, **, and * denote significance at the 0.01, 0.05, and 0.10 levels, respectively.

Table 7. Multivariate tests part 3.

Dependent Variable	(1) Failure	(2) Failure	(3) Failure	(4) Failure	(5) Failure	(6) Failure	(7) Failure	(8) Failure
Female CEO	-0,2098 (0,38)		-0,1673 (0,39)					
Female Chair		-0,2687 (0,30)	-0,2369 (0,31)					
Female CEO or Chair				-0,1609 (0,27)				
Female CEO x Small Bank					-2,2552 *** (0,77)		-2,2692 *** (0,79)	
Female CEO x Large Bank					0,0720 (0,39)		0,0945 (0,41)	
Female Chair x Small Bank						-1,6092 ** (0,66)	-1,6169 ** (0,67)	
Female Chair x Large Bank						-0,0825 (0,30)	-0,1172 (0,33)	
Female CEO or Chair x Small Bank								-1,9614 *** (0,58)
Female CEO or Chair x Large Bank								0,1097 (0,27)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	22974	22974	22974	22974	22974	22974	22974	22974
Adjusted R-Square/P-R Square	61,43 %	61,44 %	61,45 %	61,44 %	61,53 %	61,48 %	61,58 %	61,58 %
F Statistic/Chi-Sq Statistic P-Value	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

The table presents the multivariate tests for failure within next year for female and male CEO/Chair banks. ***, **, and * denote significance at the 0.01, 0.05, and 0.10 levels, respectively.