DOI: 10.20472/EFC.2025.026.009

ASIF SAEED

EMLV Business School, France

GOVERNING TAIL RISK: THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY COMMITTEE ON BANK'S TAIL RISK

Abstract:

Purpose: This study aims to explore whether the presence of a CSR committee is effective in mitigating the bank tail risk. Next, how individual CSR committee attributes contribute to these associations.

Design/methodology/approach: Using data from the US banking sector, the final sample consists of 583 bank-years from 130 banks. The authors start with bank-year fixed effect regression analysis. Further, they used bank-level cluster effect, Fama–MacBeth regression, and Weighted least squares regression for robustness. For endogeneity, they also apply 2SLS and GMM.

Findings: Our regression estimation documents that the existence of a CSR committee effectively reduces the tail risk in the banking sector. Our main findings are robust with different regression settings and alternate proxies of tail risk. Further, we also confirm the existence of this relationship with different levels of corporate governance (CEO duality, board independence, board size, and gender diversity) and corporate social responsibility.

Social Implications: Enhancing comprehension of the CSR committee's influence on banking tail risk is pivotal for banks in refining their sustainability strategies, a matter of significant societal importance. This research contributes to advancing the UN SDGs, particularly Goal 17, which emphasizes fostering partnerships to achieve common objectives.

Originality/value: Prior research has intensively focused on whether CSR policies are associated with bank risk-taking. In addition, it has mostly formulated the causality from ESG performance to bank risk; hence, the literature lacks heterogeneity in this respect. Our investigation validates that the presence of a CSR committee in the financial sector effectively enhances the bank's ESG performance and mitigates its risk.

Keywords:

CSR committee, Tail risk, Governance mechanism, ESG, Banking

Introduction

COP26 has highlighted the importance of climate change and the world is ever more aware of the challenges posed by climate change. After COP26, achieving net zero emissions targets by 2050 is one of the world's major concerns. To this aim, every sector of society seeks ways to minimize greenhouse gas emissions, and the banking sector is no exception. To further this goal, the Net Zero Banking Alliance was established to match bank lending and investment portfolios with net-zero emissions by 2050. In particular, financial institutions have identified climate change as a serious threat to their capacity to remain solvent (Carney 2015) and regulators are increasing scrutiny of banks for climate-related risk (Hook, 2018). Banks are also playing a critical role in achieving the UN SDGs and the Paris Agreement 2016 through the corporate sector. In their Bank 2030 report, the Cambridge Institute of Sustainability Leadership (CISL) highlighted the need to institutionalize sustainability (CISL, 2020).

Despite the financial institutions are not directly involved in emitting carbon emissions and are observed as contributing small interests toward climate change (Esteban-Sanchez et al., 2017), the existence of CSR practices is more important for banks because of their business nature. Banks pertain in the service sector, and they can persuade borrowers to include CSR policies in their businesses via a lending channel (Scholtens, 2009). Additionally, banks' business largely depends on trust, and the trust in the financial sector has been tainted after the financial crisis (Hurley et al., 2014; Marie Lauesen, 2013; Nandy and Lodh, 2012). Banks must regain their trust, shifting their attention from shareholder supremacy (Gulamhussen et al., 2012; Zingales, 2000) to stakeholder supremacy in their long-term objectives, including employees, suppliers, customers, and employees. Therefore, the chief executive in the US emphasized the need to incorporate stakeholders while defining the corporate mission (Gartenberg and Seraeim, 2019).

However, most of the CSR research is focused on non-financial firms (e.g., Barnett & Salomon, 2012; Margolis & Walsh, 2003; Santis et al., 2016). The studies on financial firms are mainly focused on financial performance. Some studies find a positive relationship between CSR and bank performance (See Wu and Shen, 2013; Shen et al., 2016; Cornett et al., 2016) among others) while others (Scholtens & Dam, 2007; Finger et al., 2008; among others) do not find any significant relationship. Some other studies do further analysis and find that additional financial benefits do not offset greenwashing costs (Wu and Shen, 2013). Also, banks that integrate environmental and social aspects into their decisions are more liquid (Chen et al., 2018).

To study the impact of the CSR committee (*CSR*_COM) on banks' tail risk (T_RISK), we employ 583 bank-year observations from the United States from 2002 to 2018. Our findings confirm the theoretical assumptions of this study and reveal that the presence of a CSR committee will effectively decrease a bank's tail risk. Further, the additional analysis shows whether different governance attributes (CEO duality, board size, board independence, and board gender diversity) and corporate social responsibility performance (social and environmental) impact the corresponding relationship of CSR committees and tail risk in the US banking industry. Lastly, our findings are not driven by any endogeneity concerns.

Furthermore, our study contributes to the prior literature by presenting a forward-looking proposal for reducing bank tail risk. Primarily, our study is the first paper that analyses the impact of CSR committees on the tail risk of banks. It clarifies the role CSR committees play in decreasing the tail risk of banks. Prior research on environmental finance has focused on overall corporate social responsibility (CSR) and dimensions of environmental performance (Chaudhry et al., 2021; Diemont et al., 2016). In comparison, a significant amount of work has not been done to evaluate the impact of a bank's governance structure on its tail risk performance. Such as Birindelli et al. (2018) and Giuliana Birindelli (2020) analyze the impact of governance attributes on environmental performance. Therefore, our study has some important implications for corporates and policymakers that highlight the positive role of CSR committees in decreasing the tail risk of financial institutes.

Secondly, it contributes to the prior literature on financial institutes and markets (Shen et al., 2016; Straetmans & Chaudhry, 2015; Wu and Shen, 2013) by elaborating on how banks can use CSR committees to manage their tail risk effectively. It provides practical implications for banks incorporating CSR committees into their governance structure. Third, it also contributes to the sustainability literature by examining the strength of the relationship between the bank's CSR committee and its tail risk performance at different levels of CSR performance. Lastly, from a theoretical point of view, it contributes to the stakeholder theory (Chedrawi et al., 2020; Mitchell et al., 1997; Velte & Stawinoga, 2020).

The rest of the paper proceeds as follows. Section 2 reviews the prior literature. Section 3 presents our sample distribution and research methodology. Section 4 elaborates on our research findings and performs robustness tests. Section 5 executes the additional analysis. Lastly, Section 6 concludes the paper and provides practical implications.

1. Literature review

1.1. Role of CSR committee

According to the stakeholder theory, an organization must fulfill different stakeholder expectations (Velte & Stawinoga, 2020). Considering that sometimes these claims can be conflicting, prior research often uses a more classified model, i.e., classifying stakeholder claims based on power, legitimacy, and urgency (Mitchell et al., 1997). These claims refer to the careful and cautious identification of stakeholders who demand the implementation of CSR committees in organizations (Jamali et al., 2008). At the same time, implementing corporate social responsibility is considered an integral responsibility of financial and non-financial institutes. Chedrawi et al. (2020) state that one of the major issues of international banks is the implementation of CSR. Therefore, banks need to adapt the perspectives and activities that their stakeholders require. Moving forward, prior research by Birindelli et al. (2018) and Hussain et al. (2016) provide support from stakeholder theory and state that the presence of a CSR committee indicates better stakeholder management, which simultaneously helps foster both environmental and social performance.

Since the financial crisis of 2008-9, prior research has extensively highlighted corporate governance's legitimate role in addressing various stakeholder claims. The most significant claim among these is corporate social responsibility (*CSR*) (Velte & Stawinoga, 2020). Previously, Amore and Bennedsen (2016) analyzed poor governance structures' role in deteriorating a firm's positive environmental image. Similarly, Giannarakis et al. (2020) analyze the positive role of governance in enhancing corporate environmental performance. These findings highlight the importance of various governance attributes, such as CSR committees, independent directors, gender diversity, etc., in protecting stakeholder interests. Moreover, Hussain et al. (2016) state that the presence of a CSR committee points toward the board's attention to sustainable development. Likewise, Gennari and Salvioni (2019) have analyzed the positive role of CSR committees in modifying governance structure, protecting shareholder interests, and reducing corporate irresponsibility.

Further, Elmaghrabi (2021) states that firms with CSR committees have better CSR performance and fewer CSR-related controversies. Moving forward, prior research on CSR- committees has mainly focused on non-financial institutes (Elmaghrabi, 2021; Gennari & Salvioni, 2019; Radu & Smaili, 2021). However, the significant role of the CSR committee in financial institutes has been well elaborated by some researchers, such as Cosma et al. (2022) propose that banks that find strategic opportunities in climate change disclosure should establish CSR committees. Also, Birindelli et al. (2018), while analyzing the listed banks of Europe and the United States, found a positive relationship between

CSR committees and ESG performance. However, companies are frequently establishing CSR committees to handle sustainability tasks better. Yet little empirical evidence is found that evaluates the importance of CSR committees in financial institutes (Birindelli et al., 2018; Cosma et al., 2022). This provides us with an opportunity to analyze the CSR committee's impact on banks' tail risk.

2.2. Risk mitigation in banks

Today's challenging global environment, increased public pressures, and global agreements have collectively forced central banks to address the risks associated with climate change. Environmental concerns refer to implementing and effectively regulating. Previously, research has extensively highlighted the role that corporate governance and CSR have been playing in mitigating the risk of financial institutes (Chiaramonte et al., 2022; Cornett et al., 2016; Pathan, 2009; See Wu and Shen, 2013; Shen et al., 2016). Such as, in an analysis of a sample of European banks Chiaramonte et al. (2022) state that a bank's environmental, social, and governance (ESG) score helps reduce its fragility. Neifar and Jarboui (2018) elaborate on the positive role of corporate governance on voluntary risk disclosures. These findings signify the importance of sustainable development for financial management (Al Ahbabi and Nobanee, 2019; Lajili et al., 2024; Samet et al., 2018; Wang et al., 2024).

Further, a bank's governance structure is found to be related to its risk-taking capabilities. Pathan (2009) elaborates on the positive role of strong bank boards in mitigating risk. He relates risk mitigation with the reduction in opportunistic behavior of bank managers due to the strong monitoring by the board members.

Furthermore, environmental risk management is crucial in financial institutes, as Weber (2012) believes that banks directly and indirectly affect sustainable development. A prior report by the Bank of England (2018) shows that banks now consider environmental-related risks as serious as other financial issues. Since they get affected by both the environmental risks of themselves as a corporation and their clients' risks, moreover, this risk-reducing effect of CSR on financial institutes has also been analyzed by Neitzert and Petras (2022), who highlighted the importance of environmental activities in banks' risk management. Prior literature (Chiaramonte et al., 2022; Cornett et al., 2016; Pathan, 2009, among others) analyzes the impact of overall corporate governance on a bank tail risk. However, insufficient research has been conducted to analyze the impact of governance determinants such as CSR committees on the risk of financial institutes.

2.3. *Extreme value theory and tail-risk*

Previously, Gilli and Këllezi (2006) stated that the extreme value theory provides the solid fundamentals required for statistical modeling and computation of extreme risk measures. Consistently, research has extensively used the extreme value theory (EVT) for the evaluation of the tail risk of financial institutes (Straetmans & Chaudhry, 2015; Wang et al., 2014). Previously, while analyzing the joint tail risk dynamics of financial institutes, Zhao (2021) found extreme value theory useful as it helps predict conditional value at risk. Also, EVT has been found beneficial in cryptocurrency, as it has been adopted by several prior researchers (Gilli & Këllezi, 2006; Osterrieder et al., 2018). Moreover, the significant use of extreme value theory has been seen for calculating tail risk, systematic risk, and spillover risk of financial institutes (Daouia et al., 2018; Gilli & Këllezi, 2006; Straetmans & Chaudhry, 2015; Zhao, 2021).

While not enough literature has been conducted to evaluate the effect of ESG dimensions on the tail risk of financial institutes. Such as Chaudhry et al. (2021) evaluate the impact of carbon neutrality on the tail risk of banks, and Srivastav and Hagendorff (2016) analyze the relationship between corporate governance and bank risk-taking. In a nutshell, this paper relates to two strands of literature on CSR and bank risk. CSR relates to the studies on the Equator Principle (EP), similar to the existence of the CSR Committee. EP is also a voluntary commitment where banks commit to including environmental and social considerations in their financing decisions. However, the existing studies on the Equator Principle only look at the financial performance of banks (Di Tommaso et al., 2022; Finger et al., 2018; Scholtens & Dam, 2007), while we aim to explore the impact of CSR committees on the tail risk of banks.

2. Methods

2.1. Sample

We use the BoardEx database for the CSR committee existence. Next, we use Datastream and Worldscope for the firm's financial characteristics. Thus, the sample includes US-listed banks. Overall, our data have 2,245 bank-year observations. Then, we exclude all observations with missing data for our key variables. Consequently, our final sample consists of 583 bank-year observations from 2002 to 2018.

2.2. Methodology

Our proxy of idiosyncratic risk is measured by a sharp decline in the market prices of the bank's equity. To measure equity tail risk, we utilize univariate extreme value theory (EVT). The univariate EVT consists of the Generalized Extreme Value (GEV) distribution, which is the limit law for the maxima of a stationary process. We opt for the Peaks-Over-Threshold (POT) approach to determine the parameters of the Generalized Extreme Value distribution. We perform this in a semi-parametric way and fit the distributional excess losses over a given high threshold that converges to a Generalized Pareto Distribution (GPD)[1].

We use the following semi-parametric estimator of De Haan et al. (1994) to estimate the quantile x for extremely low values of $p = P\{X.x\}$:

$$\hat{x}_p = X_{n-m,n}\left(\frac{m}{np}\right)^{1/\alpha} \quad (1)$$

where $X_{n-m,n}$ is the tail cut-off point, and it is the *(n-m)*th ascending order statistics from a sample size n such that $q > X_{n-m,n}$.

We estimate the α in the above tail quantile estimator in A-3 with the help of the popular Hill (1975) estimator, which is as follows:

[1] See for example Jansen and de Vries (1991), Danielsson and de Vries (1997) and Straetmans and Chaudhry (2015 among others for semi-parametric tail estimation approaches.

$$\hat{\alpha} = \left(\frac{1}{m}\sum_{j=0}^{m-1} ln\left(\frac{X_{n-j,n}}{X_{n-m,n}}\right)\right)^{-1}, \quad (2)$$

The parameter m determines how many extreme returns are used in estimation. We substitute the Hill statistic in A-4 and the tail quantile estimator in A-3 to come up with an expected shortfall estimator as follows:

$$\hat{E}\left(X - \widehat{x_p} | X > \widehat{x_p}\right) = \frac{\widehat{x_p}}{\widehat{\alpha - 1}}. \quad (3)$$

Our main dependent variable measure is *TQ175* = The estimated quantile for extremely low probabilities (p), calculated using the De Haan estimator with m =175 representing the threshold for extreme tail values.

To examine the impact of the CSR committee on the bank tail risk, the empirical model is as follows,

$$T\_Risk_t = \beta_0 + \beta_1 CSR\_COM_t + \beta_2 SIZE_t + \beta_3 ROA_t + \beta_4 LEV_t + \beta_5 CAP\_I_t + \beta_6 LOSS_t + \beta_7 VOL_t + \beta_8 M\_CAP_{i,t} + \sum_{k=1}^{16} \gamma_k Year + \varepsilon_t \quad (4)$$

Eq. (1) tests the relationship between the bank CSR committee and tail risk. All variables' definitions and data sources are given in 'Table 1'.

3. Results

3.1.Summary statistics and correlations

Table 2 presents the summary statistics of our main regression variables. This table shows 17.4% (0.174) tail risk (T_RISK) on average.[2] These statistics are consistent with the

[2] We winsorized all continuous variables at 1% to minimize the effect of outliers.

findings of Straetmans and Chaudhry (2015), who found high tail risk and systematic risk in the US banks. Next, statistics of our dependent variable denote the presence of a CSR committee in 17.7% of banks in the United States. This lower percentage is supported by the findings of Giuliana Birindelli (2020) who reports that the percentage of CSR committees is lowest in US banks compared to other banks in Canada and the United Kingdom, etc.

[Insert tables 1 &2 about here]

Furthermore, to detect problems of multicollinearity we check for the values of Pearson correlation in Table 3. Among the values of correlation, no value exceeds 0.508. This is pertinent to the minimum thresholds in the domain of corporate finance, i.e., less than 0.7, thus indicating the absence of multicollinearity (Galletta et al., 2021). In addition, we also check for the values of the variance inflation factor (*VIF*). Our analysis presents all the values of VIF less than 2.83. This again points towards the absence of multicollinearity, as prior research suggests VIF values less than 10 (Liu & Ritter, 2011).

[Insert Table 3 about here]

3.2.Regression results

To test the relationship between CSR committees and tail risk in US banks, we employ the ordinary least square (*OLS*) regression technique with a year-fixed effect in column (1) of Table 4. OLS is the most efficient regression technique in econometrics as it minimizes the predictor error between real and assumed values. Our empirical findings highlight a negative relationship between CSR committees and tail risk and support the extreme value theory. These findings support our hypothesis and show that a CSR committee's presence decreases a bank's tail risk. Our results are consistent with prior studies that find that companies with better CSR performance have less downside tail risk (Diemont et al., 2016), with a difference in that we focus on the presence of a CSR committee. In contrast, Diemont et al (2016) study the CSR performance. Moreover, previously Elmaghrabi (2021) analyses that CSR committees are a better source for improving a firm's CSR performance.

Second, we check for the robustness of our findings with several techniques. First, we applied a cluster effect (in Column 2). We use one-dimensional firm-level clustering, which adjusts the standard errors for serial correlations and heteroscedasticity (Petersen, 2009). Here we received similar results, that banks can use CSR committees as a source for reducing their tail risk.

Third, consistent with prior studies (Boubaker et al., 2020), we also run the Fama-MacBeth regression (FMB) model to check for cross-sectional dependence concerns and standard errors (Fama and MacBeth, 1973). Fourth, we apply weighted least square regression (WLS) to check for the heteroscedasticity of our observations. The results of FMB and WLS were also consistent with our prior findings. However, for all these robustness techniques, our significance was achieved at a 5% significance level.

[Insert Table 4 about here]

Furthermore, our results are robust to the alternate definitions of tail risk in Table 5 Columns 1 (TQ300) and 2 (ESQ300) (Chaudhry et al., 2021). To test the robustness of our findings, we use an alternate measure of tail risk that is measured as *TQ300* = The estimated quantile for extremely low probabilities (p), calculated using the De Haan estimator with m =300 representing the threshold for extreme tail values and ESQ300 = The expected shortfall estimator, measuring the average loss beyond a specified quantile, TQ with m =300 representing the threshold for extreme tail values. Overall, our results are consistent with our hypothesis, which states that a CSR committee's presence mitigates a bank's tail risk.

[Insert Table 5 about here]

3.3. Endogeneity concerns

We first apply a two-stage least square (2SLS) to check for possible endogeneity concerns. In accordance with prior literature highlighting an evident impact of industry peers on a firm's corporate social responsibility, we choose our instruments, i.e., the CSR geographic peer average and CSR industry peer average (Cao et al., 2019; Tang et al., 2019). In 2SLS estimation, the first stage is used to purify the stochastic explanatory variable. Further, we run the Sargan (1958) identification test to support our choice of instruments. The Sargan test proves that our additional instruments assume over-identification. The results from the second stage (*2SLS*) regression in column (1) of Table 6 present our instrumented audit quality as negatively significant at a 5% significance level.

[Insert Table 6 about here]

Moreover, similar to the prior studies (Abid et al., 2021; Haque & Ntim, 2018; Wintoki et al., 2012), we also use the generalized method of moments (GMM) to check for dynamic endogeneity concerns. Here in GMM, we consider using one-year lagged values of our dependent variable as instruments (Ullah et al., 2018). The results in column (2) of Table 6 explain a significant negative relationship between the CSR committee and tail risk. Similarly, the significance of the first-order autocorrelation AR(1) test and the second-order correlation AR(2) test's insignificance denote the absence of serial correlation. In summary, our findings are not subject to any bias or dynamic endogeneity concerns.

3.4.Additional analysis

Prior research highlights the importance of different determinants of corporate governance (board size, board independence, CEO duality, etc.) for the effective implementation of corporate social responsibility in a firm (Uyar et al., 2021). We, therefore, perform additional analysis in Table 7 to elaborate on the relationship between CSR committees and tail risk with different levels of governance characters.

[Insert Table 7 about here]

Previously, the regulators and investors of the United States have desired companies with no CEO duality. They believe the CEO impacts non-financial decisions, and CEO duality can result in poor corporate governance (Chia-Wei Chen et al., 2008; Giannarakis et al., 2017). Consistent with prior studies, we also suggest that the absence of CEO duality will better comprehend the relationship between CSR committees and tail risk. Secondly, among other studies (Bai, 2013), we suggest that a small board size is desirable because the company's supervision will be affected by the increase in the size of the board.

Third, among the important implications of Uyar et al. (2021), we suggest that board independence is important to sustain the relationship between our key variables, i.e., CSR committee and tail risk. Lastly, amongst the governance mechanisms, we analyze the impact of board gender diversity (*BGD*) on our relationship. We drive similar results as prior literature (Orazalin & Baydauletov, 2020; Uyar et al., 2021), i.e., gender-diverse boards can better advocate the relationship between CSR committees and tail risk of banks. These findings are also consistent with those of Galletta et al. (2021), who found female directors to be keener and that their increased proportion will improve banks' performance.

Moving forward, we examine the association between CSR committee and tail risk with different governance attributes, but our additional analysis also studies how different levels of the Bank's CSR performance impact this relationship. The literature stresses that the core responsibility of the CSR committee is to boost the firm's CSR performance (Uyar et al., 2021), and this CSR performance mitigates the different types of firm risk (Kim et al., 2014). So, we collected data in the context of CSR, social (double bottom line), and environmental (triple bottom line) performance from the ASSET4 ESG database to check their corresponding relationship with the CSR committee of the US banks in Table 8 (Elmaghrabi, 2021).

Our analysis shows that a CSR committee significantly reduces the bank tail risk when banks have strong CSR strategies (both social and environmental in Table 8). These results translate that if a bank aims to decrease its tail risk, it must maintain an above-average CSR score and an effective social and environmental position through an efficient CSR committee to mitigate its tail risk in the banking industry. Thus our findings support and enhance the prior literature on environmental sciences (Benkraiem et al., 2021; Bacha et al., 2020; Galletta et al., 2021; Wang & Sarkis, 2017) in the context of financial institutes.

[Insert Table 8 about here]

4. Conclusion

Prior research corresponds to corporate social responsibility's impact on a corporation's financial performance (Uyar et al., 2021). While Ameer and Othman (2011) and Uyar et al. (2021) claim that CSR improves financial performance and equity returns, others like Story and Neves (2015) support and analyze that CSR helps a firm in fulfilling its non-explicit claims (job security, product enhancement, etc.) and creation of goodwill and moral capital. Moreover, prior research has significantly focused on the effect of CSR and corporate governance on the performance of non-financial firms (Ameer & Othman, 2011; Walls et al., 2012). In contrast, insufficient research has been conducted to analyze the impact of CSR on the performance specifically the tail risk of financial institutes (Neitzert & Petras, 2022; Weber, 2012). In this study, we differ from earlier studies and explore whether the presence of a CSR committee has any tolerance on the tail risk in the US banks.

We drive a sample from 583 US bank-year observations to explain how they can effectively manage their tail risk in the presence of a CSR committee. We find that a CSR committee decreases a bank's tail risk. Our results are robust to endogeneity and causality issues as we employ 2SLS and GMM estimation techniques to address these concerns. Further, our paper performs the additional analysis at different levels of the corporate governance characteristics (CEO duality, board independence, board size, and board gender diversity) and triple bottom line (financial, social, and environmental).

Our study relates to two strands of literature on CSR and bank risk and provides several implications for academic researchers, corporates, and policymakers. First, gaining increased global attention for sustainable development, the CSR committee is a source for reducing the tail risk of financial institutes. Second, it is the first paper to prove that a CSR committee's existence reduces banks' tail risk. As previously mentioned, two studies by Diemont et al. (2016) and Chaudhry et al. (2021) use tail risk to measure bank risk, but they use overall CSR or ESG score to explore bank tail risk. Third, we utilize the novel extreme value theory as pertinent to its prior use and significance in calculating the tail risk of financial institutes (Straetmans & Chaudhry, 2015; Wang et al., 2014). Fourth, we inquire about the expected shortfall estimates conditioned on tail quantile. Lastly, we present important implications for policymakers as our study additionally analyses that banks can reduce their tail risk in the absence of CEO duality, greater board independence, a smaller board size, and more gender-diverse boards.

Nevertheless, our findings are subject to certain limitations. Firstly, our data set includes banks from only the US. The sample from Europe and emerging countries can develop intriguing results. Secondly, our study includes the period till the year 2018, yet many diverse results can be derived from the COVID-19 pandemic period. Lastly, we have used tail risk as a proxy for measuring risk; subsequent research can use distress risk and default risk to gain more specified findings.

Data Availability Statement: Data available on request due to privacy/ethical restrictions

References

Abid, A., Ali, A., Hussain, N., & Khuong, D. (2021). Risk governance and bank risk-taking behavior : Evidence from Asian banks. *Journal of International Financial Markets, Institutions & Money*, *75*(May), 101466. https://doi.org/10.1016/j.intfin.2021.101466

Al Ahbabi, A. R., & Nobanee, H. (2019). Conceptual building of sustainable financial management and sustainable financial growth. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3472313

Ameer, R., & Othman, R. (2011). Sustainability practices and corporate financial performance: A study based on the top global corporations. *Journal of Business Ethics 2011 108:1*, *108*(1), 61–79. https://doi.org/10.1007/S10551-011-1063-Y

Amore, M. D., & Bennedsen, M. (2016). Corporate governance and green innovation. *Journal of Environmental Economics and Management*, *75*, 54–72. https://doi.org/10.1016/J.JEEM.2015.11.003

Bacha, S., Ajina, A., & Saad, S. Ben. (2020). CSR performance and the cost of debt : Does audit quality matter? *Corporate Governance: The International Journal of Business in Society*, *21*(1), 137–158. https://doi.org/10.1108/CG-11-2019-0335

Barnett, M. L., & Salomon, R. M. (2012). Does it pay to be really good? Addressing the shape of the relationship between social and financial performance. *Strategic Management Journal, 33*(11), 1304‑1320. https://doi.org/10.1002/smj.1980

Benkraiem, R., Boubaker, S., & Saeed, A. (2022). How does corporate social responsibility engagement affect the information content of stock prices? *Managerial and Decision Economics*, 43(5), 1266-1289. https://doi.org/10.1002/mde.3452

Birindelli, G., Dell'Atti, S., Iannuzzi, A. P., & Savioli, M. (2018). Composition and activity of the board of directors: Impact on ESG performance in the banking system. *Sustainability (Switzerland), 10*(12), 1–20. https://doi.org/10.3390/su10124699

Birindelli, G., & Palea, V. (2022). To green or not to green? How CSR mechanisms at the governance level affect the likelihood of banks pursuing green product strategies. *Corporate Governance: The International Journal of Business in Society*, *5*(3), 248–253.

Boubaker, S., Cellier, A., Manita, R., & Saeed, A. (2020). Does corporate social responsibility reduce financial distress risk? *Economic Modelling*, *91*(May), 835–851. https://doi.org/10.1016/j.econmod.2020.05.012

Cao, J., Liang, H., & Zhan, X. (2019). Peer effects of corporate social responsibility. *Management Science, 65*(12), 5487–5503.

Carney, M. (2015). *Breaking the Tragedy of the Horizon-climate Change and Financial Stability.* Speech given at Lloyd's of London 29, 220-230.

Chaudhry, S. M., Saeed, A., & Ahmed, R. (2021). Carbon neutrality: The role of banks in optimal environmental management strategies. *Journal of Environmental Management*, *299*, 113545. https://doi.org/10.1016/j.jenvman.2021.113545

Chedrawi, C., Osta, A., & Osta, S. (2020). CSR in the Lebanese banking sector: A neo-institutional approach to stakeholders' legitimacy. *Journal of Asia Business Studies*, *14*(2), 143–157. https://doi.org/10.1108/JABS-03-2018-0093

Chen, N., Huang, H.-H., & Lin, C.-H. (2018). Equator Principles and Bank Liquidity. *International. Review of Economics & Finance, 55*(C):185–202.

Chia-Wei Chen, J. Barry Lin, B. Y. (2008). CEO duality and firm performance: An endogenous issue. *Corporate Ownership & Control*, *6*(1).

Chiaramonte, L., Dreassi, A., Girardone, C., & Piserà, S. (2022). Do ESG strategies enhance bank stability during financial turmoil? Evidence from Europe. *European Journal of Finance*, *28*(12), 1173–1211. https://doi.org/10.1080/1351847X.2021.1964556

Cornett, M. M., Erhemjamts, O., & Tehranian, H. (2016). Greed or good deeds: An examination of the relation between corporate social responsibility and the financial performance of US commercial banks around the financial crisis. *Journal of Banking & Finance,* 70, 137‑159. https://doi.org/10.1016/j.jbankfin.2016.04.024

Cosma, S., Principale, S., & Venturelli, A. (2022). Sustainable governance and climate-change disclosure in European banking: the role of the corporate social responsibility committee. *Corporate Governance (Bingley)*, *22*(6), 1345–1369. https://doi.org/10.1108/CG-09-2021-0331/FULL/XML

Daouia, A., Girard, S., & Stupfler, G. (2018). Estimation of tail risk based on extreme expectiles. *Journal of the Royal Statistical Society. Series B: Statistical Methodology*, *80*(2), 263–292. https://doi.org/10.1111/rssb.12254

De Haan, L., Jansen, D.W., Koedijk, K. & de Vries, C.G. (1994). Safety first portfolio selection, extreme value theory, and long-run asset risks. In: Extreme Value Theory and Applications. *Springer, Boston, MA*, 471–487.

Diemont, D., Moore, K., & Soppe, A. (2016). The downside of being responsible: Corporate social responsibility and tail risk. *Journal of Business Ethics, 137*(2), 213–229. https://doi.org/10.1007/s10551-015-2549-9

Di Tommaso, C., & Pacelli, V. (2022). Does nonperforming loan securitization affect credit default swap spreads? Evidence from European banks. Journal of International Financial Management & Accounting, 33(2), 285-306. https://doi.org/10.1111/jifm.12147

Dikau, S., & Volz, U. (2021). Central bank mandates, sustainability objectives, and the promotion of green finance. *Ecological Economics, 184*(March), 107022. https://doi.org/10.1016/j.ecolecon.2021.107022

Elmaghrabi, M. E. (2021). CSR committee attributes and CSR performance: UK evidence. *Corporate Governance (Bingley)*, *21*(5), 892–919. https://doi.org/10.1108/CG-01-2020-0036/FULL/XML

England, B. of. (2018). Impact of climate change on the UK banking sector.

Esteban‐Sanchez, P., de la Cuesta‐Gonzalez, M., & Paredes‐Gazquez, J. D. (2017). Corporate social performance and its relation with corporate financial performance: International evidence in the banking industry. *Journal of Cleaner Production, 162*, 1102‐1110. https://doi.org/10.1016/j.jclepro.2017.06.127.

Fama, E.F., & MacBeth, J. D. (1973). Risk, return, and equilibrium: Empirical Tests. *Journal of Political Economy, 81*(3), 607–636.

Finger, M., Gavious, I., & Manos, R. (2018). Environmental risk management and financial performance in the banking industry: A cross-country comparison. *Journal of International Financial Markets, Institutions and Money, 52*, 240‐261. https://doi.org/10.1016/j.intfin.2017.09.019

Galletta, S., Mazzù, S., Naciti, V., & Vermiglio, C. (2021). Gender diversity and sustainability performance in the banking industry. *Corporate Social Responsibility and Environmental Management*, 161–174. https://doi.org/10.1002/csr.2191

Gangi, F., Meles, A., D'Angelo, E., & Daniele, L. M. (2019). Sustainable development and corporate governance in the financial system: Are environmentally friendly banks less risky? Corporate Social. Responsibility and Environmental Management, 26(3):529–547.

Gartenberg, C. & Serafeim, G. (2019). 181 Top CEOs Have Realized Companies Need a Purpose Beyond Profit, *Harvard Business Review*. https://hbr.org/2019/08/181-top-ceos-have-realized-companies-need-a-purpose-beyond-profit

Gennari, F., & Salvioni, D. M. (2019). CSR committees on boards: the impact of the external country-level factors. *Journal of Management and Governance, 23*(3), 759–785. https://doi.org/10.1007/s10997-018-9442-8

Gulamhussen, M. A., Pinheiro, C., & Sousa, R. (2012). The influence of managerial ownership on bank market value, performance, and risk: Evidence from banks listed on the stoxx global index. *Journal of International Financial Management & Accounting,* 23(2), 121-153. https://doi.org/10.1111/j.1467-646X.2012.01056.x

Giannarakis, G., Konteos, G., & Sariannidis, N. (2017). The relation between voluntary carbon disclosure and environmental performance : The case of S & P 500 International Journal of Law and Management Article information : *International Journal of Law and Management, October*. https://doi.org/10.1108/IJLMA-05-2016-004

Giannarakis, G., Andronikidis, A., & Sariannidis, N. (2020). Determinants of environmental disclosure: Investigating new and conventional corporate governance characteristics. *Annals of Operations Research*, *294*(1–2), 87–105. https://doi.org/10.1007/S10479-019-03323-X

Gilli, M., & Këllezi, E. (2006). An application of extreme value theory for measuring financial risk. *Computational Economics*, *27*(2–3), 207–228. https://doi.org/10.1007/s10614-006-9025-7

Giuliana Birindelli, V. P. (2020). To green or not to green? How CSR mechanisms at the governance level affect the likelihood of banks pursuing green product strategies. *Corporate Governance: The International Journal of Business in Society*, *5*(3), 248–253.

Haque, F., & Ntim, C. G. (2018). Environmental Policy, Sustainable Development, Governance Mechanisms, and Environmental Performance. *Business Strategy and the Environment*, *27*(3), 415–435. https://doi.org/10.1002/bse.2007

Hook, L. (2018). Central bank chiefs sound warning on climate change. The Financial Times, April 2018.

Hurley, R., Gong, X., & Waqar, A. (2014). Understanding the loss of trust in large banks. *International Journal of Bank Marketing*, *32*(5):348–366.

Hussain, N., Rigoni, U., & Orij, R. P. (2016). Corporate governance and sustainability performance: Analysis of triple bottom line performance. *Journal of Business Ethics*, *149*(2), 411–432. https://doi.org/10.1007/S10551-016-3099-5

Jamali, D., Safieddine, A. M., & Rabbath, M. (2008). Corporate governance and corporate social responsibility synergies and interrelationships. *Corporate Governance: An International Review*, *16*(5), 443–459. https://doi.org/10.1111/J.1467-8683.2008.00702.X

Kim, Y., Haidan Li, S., & Li. (2014). Corporate Social Responsibility and Stock Price Crash Risk. *Journal of Banking & Finance Journal*, *43*, 1–13. https://doi.org/https://doi.org/10.1016/j.jbankfin.2014.02.013

Lajili, K., Li, T. M., Chourou, L., Dobler, M., & Zéghal, D. (2024). Corporate risk disclosures in turbulent times: An international analysis in the global financial crisis. *Journal of International Financial Management & Accounting*, 35(1), 261–289. https://doi.org/10.1111/jifm.12195

Liu, X., & Ritter, J. R. (2011). Local underwriter oligopolies and IPO underpricing. *Journal of Financial Economics*, *102*(3), 579–601. https://doi.org/10.1016/j.jfineco.2011.01.009

Margolis, J. D., & Walsh, J. P. (2003). Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly*, *48*(2), 268‑305. https://doi.org/10.2307/3556659

Marie Lauesen, L. (2013). CSR in the aftermath of the financial crisis. *Social Responsibility Journal*, *9*(4):641–663.

Matute‑Vallejo, J., Bravo, R., & Pina, J. M. (2011). The influence of corporate social responsibility and price fairness on customer behavior: Evidence from the financial sector. *Corporate Social Responsibility and Environmental Management*, *18*(6), 317‑331. https://doi.org/10.1002/csr.247

Mitchell, R. K., Agle, B. R., Wood, D. J., & Mitchell, R. K. (1997). Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. *Academy of Management Review*, *22*(4), 853–886.

Nandy, M. & Lodh, S. (2012). Do banks value the eco-friendliness of firms in their corporate lending decision? Some empirical evidence. *International Review of Financial Analysis*, *25*, 83–93.

Neifar, S., & Jarboui, A. (2018). Corporate governance and operational risk voluntary disclosure: Evidence from Islamic banks. *Research in International Business and Finance*, *46*, 43–54. https://doi.org/10.1016/j.ribaf.2017.09.006

Neitzert, F., & Petras, M. (2022). Corporate social responsibility and bank risk. *Journal of Business*

Economics, *92*(3). https://doi.org/10.1007/s11573-021-01069-2

Orazalin, N., & Baydauletov, M. (2020). Corporate social responsibility strategy and corporate environmental and social performance: The moderating role of board gender diversity. *Corporate Social Responsibility and Environmental Management*, *27*(4), 1664–1676. https://doi.org/10.1002/csr.1915

Osterrieder, J., Lorenz, J., & Strika, M. (2018). Bitcoin and Cryptocurrencies - Not for the Faint-Hearted. *SSRN Electronic Journal*, 1–31. https://doi.org/10.2139/ssrn.2867671

Pathan, S. (2009). Strong boards, CEO power, and bank risk-taking. *Journal of Banking and Finance*, *33*(7), 1340–1350. https://doi.org/10.1016/j.jbankfin.2009.02.001

Petersen, M. A. (2009). Estimating standard errors in finance panel data sets: Comparing approaches. *Review of Financial Studies*, *22*(1), 435–480. https://doi.org/10.1093/rfs/hhn053

Radu, C., & Smaili, N. (2021). Alignment versus monitoring: An examination of the effect of the CSR committee and CSR-linked executive compensation on CSR performance. *Journal of Business Ethics 2021 180:1*, *180*(1), 145–163. https://doi.org/10.1007/S10551-021-04904-2

Santis, P., Albuquerque, A., & Lizarelli, F. (2016). Do sustainable companies have better financial performance? A study on Brazilian public companies. *Journal of Cleaner Production*, *133*, 735-745. https://doi.org/10.1016/j.jclepro.2016.05.180

Sargan, J. D. (1958). The estimation of economic relationships using instrumental variables. *Econometrica*, *26*(3), 393–415. http://www.jstor.org/stable/1907619.

Scholtens, B., & Dam, L. (2007). Banking on the equator. Are banks that adopted the equator principles different from non-adopters? *World Development*, *35*(8), 1307-1328. https://doi.org/10.1016/j.worlddev.2006.10.013.

Shakil, M. H., Tasnia, M., & Mostafiz, M. I. (2021). Board gender diversity and environmental, social and governance performance of US banks: Moderating role of environmental, social and corporate governance controversies. International Journal of Bank Marketing, 39(4), 661-677. https://doi.org/10.1108/IJBM-04-2020-0210

Shen, C. H., Wu, M. W., Chen, T. H., & Fang, H. (2016). To engage or not to engage in corporate social responsibility: Empirical evidence from the global banking sector. *Economic Modelling, 55*, 207‑225. https://doi.org/10.1016/j.econmod.2016.02.007

Srivastav, A., & Hagendorff, J. (2016). Corporate Governance and Bank Risk-taking. *Corporate Governance: An International Review*, *24*(3), 334–345. https://doi.org/10.1111/corg.12133

Story, J., & Neves, P. (2015). When corporate social responsibility (CSR) increases performance: Exploring the role of intrinsic and extrinsic CSR attribution. *Business Ethics*, *24*(2), 111–124. https://doi.org/10.1111/beer.12084

Straetmans, S., & Chaudhry, S. M. (2015). Tail risk and systemic risk of US and Eurozone financial institutions in the wake of the global financial crisis. *Journal of International Money and Finance, 58*, 191–223. https://doi.org/10.1016/j.jimonfin.2015.07.003

Tang, P., Fu, S., & Yang, S. (2019). Do peer firms affect corporate social performance? *Journal of Cleaner Production*, *239*, 118080. https://doi.org/10.1016/j.jclepro.2019.118080

Ullah, S., Akhtar, P., & Zaefarian, G. (2018). Dealing with endogeneity bias: The generalized method of moments (GMM) for panel data. *Industrial Marketing Management, 71*, 69–78. https://doi.org/10.1016/j.indmarman.2017.11.010

University of Cambridge Institute for Sustainability Leadership (CISL 2020). Bask 2030: Accelerating the transition to a low-carbon economy. *Cambridge: University of Cambridge Institute for Sustainability Leadership*.

Uyar, A., Kuzey, C., Kilic, M., & Karaman, A. S. (2021). Board structure, financial performance, corporate social responsibility performance, CSR committee, and CEO duality: Disentangling the connection in healthcare. *Corporate Social Responsibility and Environmental Management, 28*(6), 1730–1748. https://doi.org/10.1002/csr.2141

Velte, P., & Stawinoga, M. (2020). Do chief sustainability officers and CSR committees influence CSR-related outcomes? A structured literature review based on empirical-quantitative research findings. *Journal of Management Control, 31*(4). https://doi.org/10.1007/s00187-020-00308-x

Samet, A., Boubakri, N., & Boubaker, S. (2018). Does public–private status affect bank risk taking? Worldwide evidence. *Journal of International Financial Markets, Institutions and Money*, 53, 287-306. https://doi.org/10.1016/j.intfin.2017.12.007

Walls, J. L., Berrone, P., & Phan, P. H. (2012). Corporate governance and environmental performance: is there really a link? *Strategic Management Journal*, *33*(8), 885–913. https://doi.org/10.1002/SMJ.1952

Wang, Y., Chen, S., & Zhang, X. (2014). Measuring systemic financial risk and analyzing influential factors: An extreme value approach. *China Finance Review International*, *4*(4), 385–398. https://doi.org/10.1108/CFRI-07-2013-0095

Wang, X., Ren, K., Li, L., Qiao, Y., & Wu, B. (2024). How does ESG performance impact corporate outward foreign direct investment? *Journal of International Financial Management & Accounting*. 35, 534–583. https://doi.org/10.1111/jifm.12204

Wang, Z., & Sarkis, J. (2017). Corporate social responsibility governance, outcomes, and financial performance. *Journal of Cleaner Production*, *162*, 1607–1616. https://doi.org/10.1016/j.jclepro.2017.06.142

Weber, O. (2012). Environmental credit risk management in banks and financial service institutions. *Business Strategy and the Environment*, *21*(4), 248–263. https://doi.org/10.1002/bse.737

Wintoki, M. B., Linck, J. S., & Netter, J. M. (2012). Endogeneity and the dynamics of internal corporate governance. *Journal of Financial Economics*, *105*(3), 581–606. https://doi.org/10.1016/j.jfineco.2012.03.005

Wu, M. W., & Shen, C. H. (2013). Corporate social responsibility in the banking industry: Motives and financial performance. *Journal of Banking & Finance*, *37*(9), 3529‐3547. https://doi.org/10.1016/j.jbankfin.2013.04.023

Zhao, Z. (2021). Dynamic bivariate peak over threshold model for joint tail risk dynamics of financial markets. *Journal of Business and Economic Statistics*, *39*(4), 892–906.

https://doi.org/10.1080/07350015.2020.1737083

Zingales, L. (2000). In Search of New Foundations. *Journal of Finance*, *55*(4), 1623–1653

Table 1: Variable definitions

VARIABLE	**Definition**	**Source**
Dependent:		
T_RISK	See Section 2.2 for tail risk detail definition,	Datastream
Independent:		
CSR_COM	The dummy value 1 If the bank has a CSR committee.	BoardEx
Control:		
SIZE	Natural log of bank total assets.	Worldscope
ROA	Net profit divided by total assets.	–
LEV	Total debt is scaled by total assets.	–
CAP_I	Capital expenditures to total assets.	–
LOSS	Dummy is 1 If the bank has a loss in the current year.	–
VOL	The standard deviation of market returns	Datastream
M_CAP	Market value is divided by the book value of the bank.	Datastream & Worldscope

This table shows the variable symbols, definitions, and data sources of all the variables used in our main regression equation.

Table 2: Summary statistics

VARIABLE	Mean	Std.	Min	Median	Max
T_RISK	0.174	0.124	0.057	0.123	0.896
CSR_CCOM	0.177	0.382	0.000	0.000	1.000
SIZE	17.487	1.834	14.349	17.141	21.668
ROA	1.186	0.871	–5.670	1.130	5.470
LEV	0.850	0.970	0.000	0.531	7.886
CAP_I	19.247	5.034	1.580	20.080	33.036
LOSS	0.038	0.191	0.000	0.000	1.000
VOL	16.631	2.980	2.000	17.000	21.000
M_CAP	0.160	0.063	0.031	0.154	0.465

This table shows the summary statistics of all the variables of the main regression. The summary statistics include mean, standard deviation, minimum, median, and maximum. *T_RISK* is our main dependent variable, and *CSR_COM* is our main independent variable. The rest of the variables are our control variables. The list of variables and definitions is provided in Table 1.

Table 3: Correlation matrix

VARIABLE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	VIF
(1) CSR_COM	1.000								1.150
(2) SIZE	0.269*	1.000							2.130
(3) ROA	–0.003	0.139*	1.000						2.830
(4) LEV	–0.003	0.508*	0.262*	1.000					1.800
(5) CAP_I	–0.011	–0.312*	–0.312*	–0.275*	1.000				2.250
(6) LOSS	0.003	0.046	–0.597*	0.044	–0.114*	1.000			2.020
(7) VOL	–0.065	0.052	0.135*	–0.008	–0.071	–0.172*	1.000		1.100
(8) M_CAP	–0.010	–0.173*	0.437*	0.011	–0.161*	–0.249*	0.150*	1.000	2.210
Mean VIF									1.94

Table 3 presents Pearson pairwise correlation among our independent variables. We have shown the VIF (variance inflation factor) in the last column. The list of variables and definitions is provided in Table 1. * refer to significance at the 1% levels.

Table 4: CSR committee and tail risk main analysis

VARIABLES	**OLS (1)**	**CLUSTER (2)**	**FMB (3)**	**WLS (4)**
CSR_COM	–0.018***	–0.018**	–0.011**	–0.021**
	(–2.59)	(–2.06)	(–2.37)	(–2.07)
SIZE	0.006***	0.006**	0.010**	0.015***
	(2.77)	(2.40)	(2.85)	(6.17)
ROA	–0.022***	–0.022*	–0.005	–0.028***
	(–4.49)	(–1.86)	(–0.47)	(–6.09)
LEV	0.007**	0.007	–0.004	0.004
	(2.02)	(0.99)	(–1.02)	(0.99)
CAP_I	–0.003***	–0.003**	–0.002**	–0.005***
	(–4.00)	(–2.47)	(–2.39)	(–6.34)
LOSS	0.090***	0.090***	0.008	0.139***
	(4.81)	(2.78)	(0.97)	(4.49)
VOL	0.002**	0.002	0.004***	0.001
	(2.25)	(0.93)	(3.33)	(0.40)
M_CAP	–0.228***	–0.228***	–0.432***	–0.585***
	(–3.86)	(–4.00)	(–3.54)	(–9.93)
LAG(T_RISK)				
Constant	0.139***	0.139**	0.056	0.114**
	(3.02)	(2.44)	(1.28)	(2.07)
Observations	583	583	583	583
Fixed Effect	Year	Year	Year	Year
Adjusted R^2	0.761	0.761		0.377
Average R^2			0.365	

Table 4 presents our main regression results for the relationship between *CSR_COM* and *T_RISK* using different estimation techniques. The presence of CSR committees significantly reduces tail risk in banks. All reported t-values in parentheses are based on robust standard errors clustered by firm and year. The list of variables and definitions is provided in Table 1. *, **, and *** refer to significance at the 10%, 5%, and 1% levels, respectively.

Table 5: Alternate proxies of tail risk

VARIABLES	**TQ300** **(1)**	**ESQ300** **(2)**
CSR_COM	–0.028**	–0.045**
	(–2.43)	(–2.08)
SIZE	0.007**	0.031***
	(2.07)	(4.88)
ROA	–0.015*	0.005
	(–1.67)	(0.26)
LEV	0.012**	0.017*
	(2.14)	(1.83)
CAP_I	–0.004***	0.002
	(–3.35)	(1.04)
LOSS	0.086**	–0.122
	(2.43)	(–1.00)
VOL	0.003**	0.001
	(2.01)	(0.17)
M_CAP	–0.311***	0.153
	(–3.21)	(0.85)
LAG(T_RISK)		
Constant	0.258***	–0.079
	(3.40)	(–0.54)
Observations	564	417
Fixed Effect	Year	Year
Adjusted R^2	0.730	0.303

This table reports the results with two alternate proxies of tail risk (*TQ300* and *ESQ300*) in columns (1) and (2). The presence of CSR committees significantly reduces tail risk in banks. The list of variables and definitions is provided in Table 1. *, **, and *** refer to significance at the 10%, 5%, and 1% levels, respectively.

Table 6: Endogeneity

VARIABLES	**2SLS** **(1)**	**GMM** **(2)**
CSR_COM	–0.017**	–0.047**
	(–2.07)	(–2.08)
SIZE	0.006***	0.001**
	(2.72)	(2.15)
ROA	–0.022***	–0.017
	(–4.59)	(–0.55)
LEV	0.007**	0.015
	(2.06)	(0.56)
CAP_I	–0.003***	–0.002
	(–4.09)	(–0.29)
LOSS	0.091***	0.103*
	(4.92)	(1.94)
VOL	0.002**	0.005
	(2.30)	(0.49)
M_CAP	–0.229***	–0.568*
	(–3.94)	(–1.86)
LAG(T_RISK)		0.467***
		(3.28)
Constant	0.140***	0.166
	(3.06)	(0.53)
Observations	583	565
Fixed Effect	Year	Yes
Cent R^2	0.770	
Chi^2 p-value		0.000
AR (1) test (p-value)		0.008
AR (2) test (p-value)		0.246
<u>Over identification Statistics</u>		
Sargan Test	0.198	

This table shows the results of the evaluation of the relationship between *CSR_COM* and *T_RISK* using a two-stage least square (2SLS) and generalized methods of moments (*GMM*). The presence of CSR committees significantly reduces tail risk in banks. All reported t-values in parentheses are based on robust standard errors clustered by firm and year. The list of variables, definitions, and data sources are provided in Table 1. *, **, and *** refer to significance at the 10%, 5%, and 1% levels, respectively.

Table 7: With governance constructs

VARIABLES	CEOD=0 (1)	CEOD=1 (2)	BSIZE<mean (3)	BSIZE>mean (4)	BIND<mean (5)	BIND>mean (6)	BGD<mean (7)	BGD>mean (8)
CSR_COM	−0.021**	−0.021	−0.027***	−0.012	−0.008	−0.032***	−0.017	−0.014*
	(−2.46)	(−1.42)	(−3.02)	(−1.17)	(−0.84)	(−3.69)	(−1.51)	(−1.86)
SIZE	0.004*	0.010**	0.002	0.009***	0.002	0.003	0.011***	0.000
	(1.71)	(2.43)	(0.89)	(2.96)	(0.70)	(0.87)	(3.02)	(0.23)
ROA	−0.019***	−0.009	0.004	−0.054***	−0.010	−0.029***	−0.035***	−0.005
	(−3.53)	(−0.57)	(0.76)	(−6.45)	(−1.60)	(−4.32)	(−4.39)	(−1.00)
LEV	0.005	0.033***	0.002	0.002	0.001	0.027***	0.009	0.003
	(1.16)	(3.34)	(0.51)	(0.42)	(0.24)	(3.91)	(1.62)	(0.77)
CAP_I	−0.002**	−0.006***	−0.001	−0.004***	−0.001*	−0.004***	−0.003**	−0.002*
	(−2.41)	(−3.58)	(−1.05)	(−3.32)	(−1.85)	(−3.25)	(−2.52)	(−1.93)
LOSS	0.118***	0.040	0.145***	−0.005	0.088***	0.065**	0.069**	0.099***
	(5.21)	(1.09)	(6.69)	(−0.16)	(3.43)	(2.56)	(2.29)	(4.62)
VOL	0.000	0.003**	0.005***	−0.000	0.002**	0.003**	0.001	0.003***
	(0.27)	(2.42)	(4.69)	(−0.12)	(2.40)	(2.36)	(0.57)	(2.73)
M_CAP	−0.251***	−0.084	−0.253***	−0.178*	−0.202***	−0.230***	−0.271***	−0.134**
	(−3.64)	(−0.60)	(−3.65)	(−1.89)	(−3.15)	(−2.63)	(−2.94)	(−2.12)
Constant	0.183***	0.018	0.112**	0.165**	0.219***	0.168**	0.090	0.152***
	(3.43)	(0.17)	(2.06)	(2.33)	(3.18)	(2.51)	(1.15)	(2.90)
Observations	410	173	282	301	251	332	313	270
Fixed Effects	Year	Year	Year	Year	Year	Year	Year	Year
Adjusted R^2	0.768	0.737	0.773	0.781	0.718	0.781	0.730	0.848

Table 7 presents the sub-sample analysis of the relation between *CSR_COM* and *T_RISK*. The presence of CSR committees significantly reduces tail risk in banks. Model 1–2 partition the sample into two subsamples based on CEO duality. Models 3–4 partition the sample into two subsamples, depending on the board size. Models 5–6 partition the sample into two subsamples based on the level of board independence. Models 7–8 partition the sample into two subsamples, depending on the level of board gender diversity. All reported t-values in parentheses are based on robust standard errors clustered by firm and year. The list of variables, definitions, and data sources are provided in Table 1. *, **, and *** refer to significance at the 10%, 5%, and 1% levels, respectively.

Table 8: With CSR dimensions

VARIABLES	CSR<mean	CSR>mean	SOC<mean	SOC>mean	ENV<mean	ENV>mean
	(1)	(2)	(3)	(4)	(5)	(6)
CSR_COM	−0.007	−0.025**	−0.000	−0.028***	−0.009	−0.022**
	(−0.66)	(−2.46)	(−0.01)	(−2.70)	(−0.70)	(−2.56)
SIZE	0.000	0.009***	−0.001	0.010***	0.011**	0.009***
	(0.10)	(2.67)	(−0.24)	(3.07)	(2.11)	(2.88)
ROA	−0.023***	−0.020***	−0.018***	−0.021***	−0.043***	0.000
	(−3.26)	(−2.81)	(−2.69)	(−2.99)	(−5.76)	(0.01)
LEV	0.019***	−0.000	0.023***	−0.001	0.018***	−0.004
	(2.75)	(−0.06)	(3.09)	(−0.21)	(2.71)	(−0.82)
CAP_I	−0.003***	−0.004***	−0.003***	−0.004***	−0.003***	−0.002
	(−2.81)	(−3.23)	(−3.06)	(−3.24)	(−3.08)	(−1.46)
LOSS	0.099***	0.105***	0.163***	0.069**	0.054*	0.106***
	(3.96)	(3.66)	(6.28)	(2.52)	(1.95)	(3.94)
VOL	0.002*	0.003	0.001*	0.005**	0.002*	0.001
	(1.92)	(1.49)	(1.68)	(2.56)	(1.94)	(0.67)
M_CAP	−0.171**	−0.291***	−0.130	−0.301***	−0.223**	−0.251***
	(−2.01)	(−3.31)	(−1.61)	(−3.39)	(−2.13)	(−3.38)
Constant	0.186*	0.088	0.198**	0.038	−0.024	0.053
	(1.80)	(1.12)	(2.04)	(0.51)	(−0.24)	(0.72)
Observations	291	292	292	291	304	279
Fixed Effects	Year	Year	Year	Year	Year	Year
Adjusted R^2	0.722	0.756	0.758	0.746	0.765	0.767

Table 8 presents the sub–sample analysis of the relation between *CSR_COM* and *T_RISK*. The presence of CSR committees significantly reduces tail risk in banks. Model 1–2 partition the sample into two subsamples based on the bank's CSR performance levels. Models 3–4 partition the sample into two subsamples, depending on the social dimension of CSR. Models 5–6 partition the sample into two subsamples, depending upon the environmental dimension of CSR. All reported t-values in parentheses are based on robust standard errors clustered by firm and year. The list of variables, definitions, and data sources are provided in Table 1. *, **, and *** refer to significance at the 10%, 5%, and 1% levels, respectively.