

## Online Appendix

### Bank Misconduct, Board Diversity and CEO Turnover

#### Appendix A List of sampled sanctions and sanctioning regulatory agencies

Sanction type	Sanction	Sanctioning regulatory agency		
<b>Banking business violations</b>	Banking violation	Office of the Comptroller of the Currency (OCC) Federal Reserve New York State Department of Financial Services (NYSDFS) New York County District Attorney (NYCDA)		
	Anti-money laundering deficiency	Federal Reserve Justice Department Criminal Division New York State Department of Financial Services (NYSDFS)		
	Fraud	Justice Department Criminal Division		
	Mortgage abuse	US Attorney Justice Department multiagency referral		
	Financial institution supervision failure	Commodity Futures Trading Commission		
	Investor protection violation	Securities and Exchange Commission (SEC) Commodity Futures Trading Commission		
	<b>Economic sanction violations</b>	Economic sanction violation	Justice Department Criminal Division Office of Foreign Assets Control US Attorney New York State Department of Financial Services (NYSDFS) Federal Reserve Office of Foreign Assets Control	
		US sanction violation	Office of Foreign Assets Control	
		<b>Market violations</b>	Toxic securities abuse	Federal Housing Finance Agency National Credit Union Administration US Attorney Justice Department Civil Division Securities and Exchange Commission (SEC)
			Securities issuance or trading violation	Securities and Exchange Commission (SEC) Commodity Futures Trading Commission
Interest rate benchmark manipulation			Justice Department Criminal Division Commodity Futures Trading Commission Federal Reserve	
Foreign exchange market manipulation	Justice Department Criminal Division Federal Reserve Justice Department Antitrust Division			
<b>Administrative violations</b>	Energy market manipulation	Federal Energy Regulatory Commission		
	Tax violation	Justice Department Tax Division US Attorney		
	Accounting fraud or deficiency	Commodity Futures Trading Commission		
	Falsification of records of NY financial institutions	New York County District Attorney (NYCDA)		
	Data submission deficiency	Commodity Futures Trading Commission		

False Claims Act	Justice Department Civil Division US Attorney
Consumer protection violation	Consumer Financial Protection Bureau
Employment discrimination	Equal Employment Opportunity Commission
Benefit plan administrator violation	Employee Benefits Security Administration
Wage and hour violation	Labour Department Wage and Hour Division
Workplace safety or health violation	Occupational Safety & Health Administration
Servicemembers Civil Relief Act	Justice Department Civil Rights Division
Environmental violation	Environmental Protection Agency

---

The table presents the list of sampled sanctions by type and relevant sanctioning regulatory agencies.

## Appendix B Variable definitions

Variable	Definition	Source
<b>CEO turnover variables</b>		
<i>CEO turnover</i>	Dummy variable equal to 1 if the CEO leaves the position in year t, and 0 otherwise	Authors' calculation using BoardEx data
<i>CEO voluntary turnover</i>	Dummy variable equal to 1 if the CEO the leaves the position in year t due to death, health reasons, acceptance of another position, or retirement, and 0 otherwise	Authors' calculation using BoardEx data, annual reports and press articles
<i>CEO dismissal</i>	Dummy variable equal to 1 if CEO is fired in year t	Authors' calculation using BoardEx data, annual reports and press articles
<b>Misconduct variables</b>		
<i>Misconduct</i>	Dummy variable equal to 1 if a fine occurred in year t+1 and/or t+2, and 0 otherwise (pre-fine window)	Authors' calculation using Violation Tracker / Regulatory agency data
<i>Sanction</i>	Dummy variable equal to 1 if a fine occurred in year t and/or t-1, and 0 otherwise (post-fine window)	Authors' calculation using Violation Tracker / Regulatory agency data
<i>Number of fines</i>	Number of fines (total) in a bank year	Authors' calculation using Violation Tracker / Regulatory agency data
<i>Fine amount</i>	Fine amount (total) in a bank-year (\$)	Violation Tracker / Regulatory agency websites
<i>_Banking</i>	Banking business violations	Authors' calculation using Violation Tracker / Regulatory agency data
<i>_Economic</i>	Economic sanction violations	Authors' calculation using Violation Tracker / Regulatory agency data
<i>_Market</i>	Market violations	Authors' calculation using Violation Tracker / Regulatory agency data
<i>_Administrative</i>	Administrative violations	Authors' calculation using Violation Tracker / Regulatory agency data
<b>CEO characteristics variables</b>		
<i>CEO duality</i>	Dummy variable equal 1 if the CEO is also the Chairperson, and 0 otherwise	Authors' calculation using BoardEx data
<i>CEO tenure</i>	Tenure of the CEO (years)	Authors' calculation using BoardEx data
<i>Ln(CEO tenure)</i>	$\ln(1 + \text{CEO tenure})$	Authors' calculation using BoardEx data
<i>CEO age</i>	Age of the CEO (years)	Authors' calculation using BoardEx data
<i>Ln(CEO age)</i>	$\ln(\text{CEO age})$	Authors' calculation using BoardEx data
<b>Board characteristics variables</b>		
<i>Board size</i>	Number of board directors	Authors' calculation using BoardEx data
<i>Ln(Board size)</i>	$\ln(\text{Board size})$	Authors' calculation using BoardEx data
<i>Female directors</i>	Fraction of female directors on the board	Authors' calculation using BoardEx data
<i>Foreign directors</i>	Fraction of foreign directors on the board	Authors' calculation using BoardEx data
<i>Director age diversity</i>	Coefficient of variation of board directors' age = Standard deviation of board directors' age / Average age of	Authors' calculation using BoardEx data

board directors

<i>Independent directors</i>	Fraction of independent directors on the board	Authors' calculation using BoardEx data
<b>Bank characteristics variables</b>		
<i>Bank size</i>	Total assets (euro)	Orbis Bank Focus
<i>Ln(Bank size)</i>	<i>Ln(Bank size)</i>	Authors' calculation using Orbis Bank Focus data
<i>ROE</i>	Return on equity	Authors' calculation using Orbis Bank Focus data
<i>Stock return volatility</i>	Annualised standard deviation of daily stock returns (3-year moving average)	Authors' calculation using Thomson Eikon data

---

The table defines the variables used in the analysis and the source of the data. Bank-level control variables are winsorised at the 5 percent level.