

Appendix: Construction of Regulatory Indices

Appendix table 1

Variable name	Quantification	World Bank Survey IV questions
Overall activity restrictivness	4.1 + 4.2 + 4.3; Unrestricted = 1, Permitted = 2, Restricted = 3, Prohibited = 4	4.1 What are the conditions under which banks can engage in securities activities? 4.2 What are the conditions under which banks can engage in insurance activities? 4.3 What are the conditions under which banks can engage in real estate activities?
Financial conglomerate restrictivness	4.4 + 2.3 + 2.5; Unrestricted = 1, Permitted = 2, Restricted = 3, Prohibited = 4	4.4 Can banks own voting shares in nonfinancial firms? 2.3 Can nonfinancial firms own shares in commercial banks? 2.5 Can nonbank financial firms (e.g., insurance companies, finance companies, etc.) own any voting shares in commercial banks?
Capital stringency	3.2 + 3.3 + 3.3.1 + 3.5 + 3.9.1 + 3.9.2 + 3.9.3 + (3.7 if < 0.75); Yes = 1, No = 0	3.2 Does the minimum ratio vary as a function of an individual bank's credit risk? 3.3 Does the minimum ratio vary as a function of market risk? 3.3.1 Does the minimum ratio vary as a function of operational risk? 3.5 Is subordinated debt allowable as part of regulatory capital? 3.9 Before minimum capital adequacy is determined, which of the following are deducted from the book value of capital? 3.9.1 Market value of loan losses not realized in accounting books?

Appendix table 1 (continued)

Variable name	Quantification	World Bank Survey IV questions
		3.9.2 Unrealized losses in securities portfolios?
		3.9.3 Unrealized foreign exchange losses?
		3.7 What fraction of revaluation gains is allowed as part of capital?
Official supervisory power	5.4 + 5.5 + 5.6 + 5.7 + 6.1 + 10.4 + 11.2 + 11.3.1 + 11.3.2 + 11.3.3 + (11.6 + 11.7 + 11.9.1); Yes = 1, No = 0; For questions 11.6, 11.7 and 11.9 (a) = 1, (c) and (d) = 0.5, (b) = 0	5.4 Do supervisors get a copy of the auditor's report?
		5.5 Does the supervisory agency have the right to meet with external auditors to discuss their report without the approval of the bank?
		5.6 Are auditors required by law to communicate directly to the supervisory agency any presumed involvement of bank directors or senior managers in illicit activities, fraud, or insider abuse?
		5.7 Can supervisors take legal action against external auditors for negligence?
		6.1 Can the supervisory authority force a bank to change its internal organizational structure?
		10.4 Are off-balance sheet items disclosed to supervisors?
		11.2 Can the supervisory agency order the bank's directors or management to constitute provisions to cover actual or potential losses?
		11.3 Can the supervisory agency suspend the directors' decision to distribute:
		11.3.1 Dividends?
		11.3.2 Bonuses?
		11.3.3 Management fees?

Appendix table 1 (continued)

Variable name	Quantification	World Bank Survey IV questions
		Who can legally declare---such that this declaration supersedes some of the rights of shareholders that a bank is insolvent: (Check all that apply)
		11.6
		11.6.1 (a) Bank supervisor
		11.6.2 (b) Court
		11.6.3 (c) Deposit insurance agency
		11.6.4 (d) Bank restructuring or Asset Management Agency
		According to the Banking Law, who has authority to intervene that is, suspend some or all ownership rights a problem bank? (Check all that apply)
		11.7
		11.7.1 (a) Bank supervisor
		11.7.2 (b) Court
		11.7.3 (c) Deposit insurance agency
		11.7.4 (d) Bank restructuring or Asset Management Agency
		Regarding bank restructuring and reorganization, can the supervisory agency or any other government agency supersede shareholder rights
		11.9.1
		11.9.1.1 (a) Bank supervisor
		11.9.1.2 (b) Court
		11.9.1.3 (c) Deposit insurance agency
		11.9.1.4 (d) Bank restructuring or Asset Management Agency
Private monitoring	$3.5 + 3.6 + 5.1 + 5.3 + 8.1 + 8.4 + 10.1 + [(10.1.1)*(-1) + 1] + 10.3 + 10.6 + 10.7.1 + 10.7.2 + 10.4.1 + 10.5 + 11.1.1$; Yes = 1, No = 0	3.5 Is subordinated debt allowable as part of regulatory capital? 3.6 Is subordinated debt required as part of regulatory capital? 5.1 Is an external audit a compulsory obligation for banks? 5.3 Are auditors licensed or certified?

Appendix table 1 (continued)

Variable name	Quantification	World Bank Survey IV questions
		8.1 Is there an explicit deposit insurance protection system? If no, you may skip to question 8.2. If yes:
		8.4 Were insured depositors wholly compensated (to the extent of legal protection) the last time a bank failed?
		10.1 Does accrued, though unpaid, interest/principal enter the income statement while the loan is still performing?
		10.1.1 Does accrued, though unpaid, interest/principal enter the income statement while the loan is still non-performing?
		10.3 Are financial institutions required to produce consolidated accounts covering all bank and any nonk-bank financial subsidiaries (including affiliates of common holding companies)?
		10.6 Are bank directors legally liable if information disclosed is erroneous or misleading?
		10.7.1 How many of the top ten banks (in terms of total domestic assets) are rated by international credit rating agencies (e.g., Moody's, Standard and Poor)?
		10.7.2 How many of the top ten banks (in terms of total domestic assets) are rated by domestic credit rating agencies?
		10.4.1 Are off-balance sheet items disclosed to the public?
		10.5 Must banks disclose their risk management procedures to the public?
		11.1.1 Are bank regulators/supervisors required to make public formal enforcement actions, which include ceaseand desist orders and written agreements between a bank regulatory/supervisory body and a banking organization?

Appendix table 1 (continued)

Variable name	Quantification	World Bank Survey IV questions
Independence of supervisors	(12.2 = 1 if the term is fixed and longer than 3 years) + 12.2.2 + [(12.10)*(-1) + 1]; For question 12.2 (c) = 1, (a) and (b) and (d) = 0	12.2 To whom are the supervisory bodies responsible or accountable? (a) the Prime Minister (b) the Finance Minister or other cabinet level official (c) a legislative body, such as Parliament or Congress (d) other
		12.2.2 Does the head of the supervisory agency (and other directors) have a fixed term? If yes, how long is the term?
		12.10 Can individual supervisory staff be held personally liable for damages to a bank caused by their actions or omissions committed in the good faith exercise of their duties?