

**An Overview of**  
***Rethinking Bank Regulation: Till Angel Govern***

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A large and growing body of research suggests that banks matter for human welfare. Most noticeably, banks matter when they fail. Indeed, the fiscal costs of banking crises in developing countries in the 1980s and 1990s exceeded \$1 trillion, with some estimates putting the cost of Japan's banking problems alone over this threshold too.<sup>1</sup> Recent research also finds that banks matter for economic growth.<sup>2</sup> Banks that mobilize and allocate savings efficiently, allocate capital to endeavors with the highest expected social returns, and exert sound governance over funded firms foster innovation and growth. Banks that instead funnel credit to connected parties and the politically powerful discourage entrepreneurship and impede economic development. Recent work further shows that banks matter for poverty and income distribution.<sup>3</sup> Well-functioning banks that extend credit to those with the best projects, rather than to the wealthy or to those with familial, political, or corrupt connections, exert an equalizing affect on the distribution of income and a disproportionately positive impact on the poor by de-linking good ideas and ability from past accumulation of wealth and associations.

The important relationship between banks and economic welfare has led researchers and international institutions to develop policy recommendations concerning bank regulation and supervision. The International Monetary Fund, the World Bank, and other standard setting groups (of bank supervisors, securities regulators, etc.) have developed extensive checklists of

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<sup>1</sup> J. Barth, G. Caprio, and R. Levine, *Rethinking Bank Regulation: Till Angels Govern*, Cambridge University Press, forthcoming. This note summarizes some of the main points of that book.

<sup>2</sup> R. Levine, "Finance and Growth: Theory and Evidence," NBER Working Paper No. 10766, September 2004, and *Handbook of Economic Growth*, forthcoming.

<sup>3</sup> T. Beck, A. Demirguc-Kunt, and R. Levine, "Finance, Inequality, and Poverty: Cross-Country Evidence," NBER Working Paper No. 10979, December 2004; and T. Beck, A. Demirguc-Kunt, L. Laeven, and R. Levine, "Finance, Firm Size, and Growth," NBER Working Paper No. 10983, December 2004.

“best practice” recommendations that they urge all countries to adopt. Most influentially, the Basel Committee on Bank Supervision recently revised the 1988 Basel Capital Accord to create Basel II. The first pillar of these recommendations develops more extensive procedures for computing minimum bank capital requirements. The second pillar focuses on enhancing official supervisory practices and ensuring that supervisory agencies have the power to scrutinize and discipline banks. The third and less developed pillar envisions greater market discipline of banks through policies that force banks to disclose accurate, transparent information. Although considerable debate surrounds the validity of these pillars, over 100 countries have already stated that they will eventually adopt Basel II.

### **Data**

Until recently, the absence of data on bank regulation and supervision made it impossible to conduct broad cross-country studies of which regulations and supervisory practices promote sound banking. While analysts used models, country-studies, and the experiences of supervisors to make policy recommendations, there were simply insufficient data with which to conduct extensive international comparisons and to test the validity of Basel II or other proposals for reform. Clearly expert advice and evidence from individual countries should inform banking policies; but just as clearly, cross-country econometric evidence can provide a valuable contribution.

Consequently, we assembled an international database on banking policies. After moving up a painful learning curve in their design and implementation, we conducted two surveys. The first was conducted in 1998/1999 and involved over 100 countries and included information on almost 200 regulations and supervisory practices. The second covered

2003/2004 and included 50 more countries and 100 additional questions, many of which were recommended by users of the first survey.<sup>4</sup>

These data permit an assessment of which banking sector policies work best to promote sound banking around the world. In terms of defining “sound banking,” many take for granted that stability is the primary objective of bank regulation. While we study stability, we also examine the impact of banking policies on bank development, efficiency, corruption in lending, and corporate governance of banks. Banks are not simply safe places to stash funds. Banks play pivotal roles in mobilizing and allocating resources, monitoring firms, and providing liquidity and risk management services. Thus, bank regulation and supervision should be judged by more criteria than stability alone. Furthermore, while we examine many bank regulations and supervisory practices, we devote considerable effort to assessing Basel II’s three pillars.

### **A Political Economy Approach**

Consistent with research on the political economy of banking policies, the patterns we observe in the data suggest that countries do not choose individual regulations in isolation; rather, individual choices reflect broad approaches to the role of government in the economy.<sup>5</sup> Some governments choose an active, hands-on approach, where the government owns much of the banking industry, restricts banks from engaging in non-lending activities such securities underwriting, insurance, real estate, and non-financial service activities, limits the entry of new

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<sup>4</sup> J. Barth, G. Caprio, and R. Levine, “Banking Systems Around the Globe: Do Regulation and Ownership Affect Performance and Stability?” In: F. Mishkin (ed.), Financial Supervision and Regulation: What Works and What Doesn’t, Chicago, IL: Chicago University Press, (2001), pp. 31-88.; J. Barth, G. Caprio, and R. Levine, (2001b). “The Regulation and Supervision of Banks Around the World: A new Database,” in Robert E. Litan and Richard Herring, Editors, Integrating Emerging Market Countries into the Global Financial System, Brookings-Wharton Papers on Financial Services, Brookings Institution Press (Washington, DC), (2001), pp. 183-241.; J. Barth, G. Caprio, and R. Levine, “Bank Regulation and Supervision: What Works Best?,” NBER Working Paper No. 9323, November 2002, and Journal of Financial Intermediation, 13, (2004), pp. 205-48; J. Barth, G. Caprio, and R. Levine, Rethinking Bank Regulation: Till Angels Govern, Cambridge University Press, forthcoming.

<sup>5</sup> J. Barth, G. Caprio, and R. Levine, “Bank Regulation and Supervision: What Works Best?,” NBER Working Paper No. 9323, November 2002, and Journal of Financial Intermediation, 13, (2004), pp. 205-48; J. Barth, G. Caprio, and R. Levine, Rethinking Bank Regulation: Till Angels Govern, Cambridge University Press, forthcoming.

domestic and foreign banks, and creates a powerful supervisory agency that directly oversees and disciplines banks. Other countries rely substantially less on direct government control of banks. These countries place comparatively greater emphasis on forcing banks to disclose accurate information to the public as a mechanism for facilitating private sector governance of banks. Thus, some of our research can be viewed as using the laboratory of bank regulation and supervision to assess the historic debate about the proper role of government in the economy. These patterns also highlight (i) the potential pitfalls associated with attempting to design a uniform set of best practice recommendations for countries with different political and legal systems and (ii) the likelihood that the same regulations may work very differently in different institutional settings.

Given these observations, we framed the initial international investigations of what works best in bank regulation and supervision within two broad views of government. The public interest approach stresses that market failures – information and contract enforcement costs – interfere with the incentives and abilities of private agents to monitor and discipline banks effectively. From this perspective, a powerful supervisory agency that directly monitors and disciplines banks can improve bank operations. The public interest approach assumes that (i) there are market failures and (ii) official supervisors have the incentives and capabilities to ameliorate those market failures by directly overseeing, regulating, and disciplining banks.

The private interest view, however, questions whether official supervisory agencies have the incentives and ability to fix market failures and enhance the socially efficient operation of banks. The private interest view holds that politicians and government supervisors do not maximize social welfare; they maximize their own welfare. Thus, if bank supervisory agencies have substantial influence over bank decisions, then politicians and supervisors may abuse this

power to force banks to divert the flow of credit to ends that satisfy the private interests of politicians and supervisors, not the interests of the broader public. Under these conditions, strengthening official oversight of banks might reduce bank efficiency and intensify corruption in lending.

According to the private interest view, most countries do not have political and legal systems that induce politicians and government officials to act in the best interests of society. Thus heavy regulation of bank activities and direct, hands-on influence over banks is unlikely to promote sound banking. Rather, the private interest view holds that the most efficacious approach to bank supervision relies on using government regulations and institutions to empower private monitoring of banks. Specifically, the private interest approach advocates effective information disclosure rules and sound contract enforcement systems so that private investors can use this information to exert sound corporate governance over banks with positive ramifications on bank operations. This is not a laissez-faire approach. To the contrary, the private interest approach stresses that strong legal and regulatory institutions are necessary for reducing information and contract enforcement costs. Our research provides cross-country empirical evidence on these different approaches to bank regulation and supervision, including analyses of the role of legal and political institutions in determining the effectiveness of different banking sector policies.

### **Initial Results on What Works and What Does Not**

Using different cross-country, bank-level, and firm-level datasets and employing different econometric techniques, the initial results are broadly consistent with the predictions from a private interest view of bank regulation. Bank regulations and supervisory practices that force banks to disclose accurate information to the public tend to: (1) boost the development of

the banking system as measured by private credit relative to Gross Domestic Product, (2) increase the efficiency of intermediation as measured by lower interest margins and bank overhead costs, and (3) reduce corruption in lending as measured by survey information from firms around the world.<sup>6</sup> For example, Beck, Demirguc-Kunt, and Levine estimate that the probability that a firm reports bank corruption as a major obstacle to firm growth would decrease by over half if a country moved from the 25<sup>th</sup> percentile of our measure of the degree to which regulations force information disclosure and foster private sector monitoring to the 75<sup>th</sup> percentile.<sup>7</sup> Furthermore, information disclosure rules have a particularly strong effect on reducing corruption in lending in countries with well-functioning legal institutions. Thus, private investors need both information and legal tools to exert sound governance over banks.

Results on banking system crises also advertise the importance of the incentives facing private investors. While we do not find a relationship between information disclosure rules and bank fragility, there is a strong link between deposit insurance design and crises. The results are consistent with the view that generous insurance schemes reduce the incentives of private investors to monitor banks and this increases the ability of bank owners to take on excessive risks, increasing the probability that the country suffer a systemic crisis.<sup>8</sup> For example, we

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<sup>6</sup> J. Barth, G. Caprio, and R. Levine, "Bank Regulation and Supervision: What Works Best?," NBER Working Paper No. 9323, November 2002, and *Journal of Financial Intermediation*, 13, (2004), pp. 205-48; A. Demirguc-Kunt, L. Laeven, and R. Levine, "Regulations, Market Structure, Institutions, and the Cost of Financial Intermediation," NBER Working Paper No. 9890, August 2003, and *Journal of Money, Credit, and Banking*, 36 (2004), pp. 593-622; T. Beck, A. Demirguc-Kunt, and R. Levine, "Bank Supervision and Corporate Finance," NBER Working Paper No. 9620, April 2003; T. Beck, A. Demirguc-Kunt, and R. Levine, "Bank Supervision and Corruption in Lending," mimeo (June 2005).

<sup>7</sup> T. Beck, A. Demirguc-Kunt, and R. Levine, "Bank Supervision and Corruption in Lending," mimeo (June 2005).

<sup>8</sup> A. Demirguc-Kunt and E. Enrica Detragiache, "Does Deposit Insurance Increase Banking System Stability? An Empirical Investigation." *Journal of Monetary Economics*, 49, (2002), pp. 1373-1406. T. Beck, A. Demirguc-Kunt, and R. Levine, "Bank Concentration and Crises," NBER Working Paper No. 9921, August 2003, and "Bank Concentration, Competition and Crises: First Results," *Journal of Banking and Finance*, forthcoming.

estimate that if Mexico changed its very generous deposit insurance to the sample average, then its probability of suffering a systemic crisis would drop by 12 percentage points.<sup>9</sup>

In contrast, the results across a range of studies do not support the public interest view of regulation and raise a cautionary flag regarding reliance on direct official oversight of banks, government ownership of banks, regulations restricting bank activities, and impediments to the entry of new domestic and foreign banks. We never find that giving official supervisors greater powers (to force a bank to change its internal organizational structure, suspend dividends, stop bonuses, halt management fees, force banks to constitute provisions against actual or potential losses as determined by the supervisory agency, supersede the legal rights of shareholders, remove and replace managers and directors, obtain information from external auditors, and take legal action against auditors for negligence) enhances bank operations or reduces bank fragility. Similarly, greater government ownership of banks, regulatory restrictions on bank activities, or limitations on the entry of new banks never has positive effects. While some theories predict that strengthening direct official oversight and regulation of banks will promote social welfare in countries with well functioning political and legal institutions, we do not find support for this hypothesis either.<sup>10</sup>

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<sup>9</sup> J. Barth, G. Caprio, and R. Levine, "Bank Regulation and Supervision: What Works Best?," NBER Working Paper No. 9323, November 2002, and Journal of Financial Intermediation, 13, (2004), pp. 205-48.

<sup>10</sup> G. Caprio, L. Laeven, R. Levine, "Governance and Bank Valuation," NBER Working Paper No. 10158, December 2003. J. Barth, G. Caprio, and R. Levine, "Bank Regulation and Supervision: What Works Best?," NBER Working Paper No. 9323, November 2002, and Journal of Financial Intermediation, 13, (2004), pp. 205-48. A. Demirguc-Kunt, L. Laeven, and R. Levine, "Regulations, Market Structure, Institutions, and the Cost of Financial Intermediation," NBER Working Paper No. 9890, August 2003, and Journal of Money, Credit, and Banking, 36 (2004), pp. 593-622; T. Beck, A. Demirguc-Kunt, and R. Levine, "Bank Supervision and Corporate Finance," NBER Working Paper No. 9620, April 2003; T. Beck, A. Demirguc-Kunt, and R. Levine, "Bank Supervision and Corruption in Lending," mimeo (June 2005). T. Beck, A. Demirguc-Kunt, and R. Levine, "Bank Concentration and Crises," NBER Working Paper No. 9921, August 2003, and "Bank Concentration, Competition and Crises: First Results," Journal of Banking and Finance, forthcoming. J. Barth, G. Caprio, and R. Levine, Rethinking Bank Regulation: Till Angels Govern, Cambridge University Press, forthcoming.

As summarized in Barth, Caprio, and Levine (forthcoming, 2005), the bulk of “hands on” government policies lowers bank development, induces less efficient banks, exacerbates corruption in bank lending, and intensifies banking system fragility. Specifically, countries that grant their official supervisors greater disciplinary powers have lower levels of bank development and greater corruption in lending. Governments that heavily regulate bank activities and restrict entry into banking have banks with bloated interest rate margins and larger overhead costs.<sup>11</sup> Furthermore, countries with greater government ownership of the banking industry have less banking system development. We also find that restricting banks from diversifying into non-lending activities and prohibiting banks from lending abroad increases banking system fragility.

Thus, the evidence is broadly consistent with the private interest prediction that regulatory restrictions on activities, impediments to entry, limits on investing abroad, government ownership, and strengthening the discretionary power of official supervisors increase cronyism, corruption, and collusion with adverse ramifications on the efficiency and effectiveness bank intermediation. In analyses, however, we find that well-functioning political and legal institutions negate the negative effects of empowering direct official oversight of banks. But even in these cases, the results do not indicate that empowering direct official oversight improves bank operations.

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<sup>11</sup> For example, Demirguc-Kunt, Laeven, and Levine (2004) compute that if Mexico had the same level of restrictions on bank activities as Korea, its interest rate margins would be a full percentage point lower.

## **Basel II and Beyond**

This research has implications for the three pillars of Basel II. Although one cannot directly test the new capital requirement recommendations because they are still being implemented, we examined current measures of the stringency of capital regulations and fail to find a significant impact of capital regulations on bank development, efficiency, stability, or corruption. Many factors may explain this result. The harmonization of national capital regulations makes it difficult to find a cross-country empirical relationship between capital regulations and bank performance. Or, the lack of clear evidence on the beneficial effects of current capital regulations may reflect the inadequacy of the Basel I capital regulations and the need for Basel II. Or, banks may evade capital regulations when they are sufficiently inconvenient.

The cross-country findings support Basel II's third pillar, but not its second. For most countries, the data indicate that strengthening official supervisory powers will make things worse, not better. Unless the country is a "top ten" country in terms of the development of its political institutions, the evidence suggests that strengthening official supervisory powers hurts bank development, impedes the flow of credit to worthy firms, and leads to greater corruption in bank lending without any compensating positive effects. Instead, the results advertise the efficacy of Basel II's third pillar: market discipline. Regulations that require informational transparency and that strengthen the ability and incentives of the private sector to monitor banks tend to promote sound banking.

In sum, this research argues for paying closer attention to the foundations of the financial sector. Without good information, and of course without adequate incentives, market participants will not be able and motivated to do a good job of effect if the monitoring banks.

Although supervision was not found to be effective along a range of criteria, this does not mean that it does not have a role in strengthening the banking sector. Rather, what is suggested is a supporting role for supervision, that is one in which supervisors' job is to verify that the information being disclosed by banks is accurate, and to penalize banks that disclose false, misleading, or inadequate information. This is a critical role in support of market monitoring, and one that can be realistically achieved in most countries. In contrast, Basel II puts the burden on supervisors to detect problems in banks, to stay on top of the latest advances in risk management, and to avoid abuses of the many powers that are given to supervisors. Our research suggests that all three burdens are too much for supervision to bear. While it is true that some members of the Basel committee have said that the committee is moving to greater reliance on market monitoring, we think that developing countries should not wait for this evolution, but should move to put greater reliance on market monitoring immediately, as this is an approach that the data suggest is effective.