



Regulating  
**BANKS**  
What really works

*By James R. Barth, Gerard Caprio Jr. and Ross Levine*



# Banks matter.

Lest you doubt, consider what happens when they fail: the banking crises in developing countries in the 1980s and 1990s reduced global GDP by more than \$1 trillion – a sum about equal to all the foreign assistance provided these countries in the past half-century. And what applies to developing countries applies with a vengeance to rich ones; Japan's banking problems in the past two decades have probably cost it even more.

Market-oriented banks are vital to economic growth, mobilizing capital and allocating it to projects with the highest expected returns, and then demanding sound governance from businesses receiving the funds. By the same token, banks matter in alleviating poverty and reducing income inequality – credit extended on merit lubricates the mechanisms of upward mobility.

All the recent studies emphasizing the importance of efficient banking have led international institutions, including the International Monetary Fund and the World Bank, to devote considerable effort to developing policy recommendations for bank regulation. But arguably the most influential institution in this regard is the Basel Committee on Bank Supervision, a group of developed-country central banks operating within the Bank for International Settlements. The committee recently adopted new guidelines for regulating banks that substantially extend recommendations made in 1988 (now known as Basel I).

The first of three “pillars” underpinning these guidelines calls for tighter procedures for computing minimum bank capital requirements. The second focuses on enhancing government supervision and ensuring that supervisory agencies have the power to ferret out relevant information and to punish scofflaws. The third envisions greater market discipline by forcing public disclosure of accurate and transparent bank information. Despite considerable debate as to whether these pillars will foster healthy and stable banking systems, more than 100 countries have already agreed to adopt the new recommendations (known as Basel II).

## **REGULATING BANKS**

### **JUST THE FACTS**

Until recently, there was no comprehensive cross-country data on how banks were regulated. It was therefore impossible to conduct cross-country studies to identify which regulations worked and which did not. Policy recommendations were, by necessity, based on theory and anecdotal evidence.

To fill the information gap, we conducted two surveys to assemble international databases on banking policies. The first, from 1998 to 1999, covered 100-plus countries and included information on almost 200 regulations and supervisory practices. The second, from 2003 to 2004, covered an additional 50 countries and included another 100 questions – many of which were suggested by users of the first survey.

Here, we offer the results of statistical analysis of this data to identify what works best to promote sound banking. We also identify some factors that explain why individual countries chose their particular regulatory regimes.

Many consider stability to be the primary objective of bank regulation. Stability is indeed important, and we do study it. But we also examine the impact of different policies on the operating efficiency of banks and the extent to which corruption influences lending decisions and corporate governance.

### **SHAPES AND SIZES**

The size and structure of banking industries

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could hardly vary more widely across countries. For example, total bank assets as a percentage of GDP range from 361 percent in Germany to 142 percent in Israel, 64 percent in the United States and just 11 percent in Niger. In Germany, firms are heavily dependent on bank loans for funding, whereas in the United States, businesses raise substantially more funds by issuing stocks and bonds. In Niger, neither banking nor the securities markets is well developed.

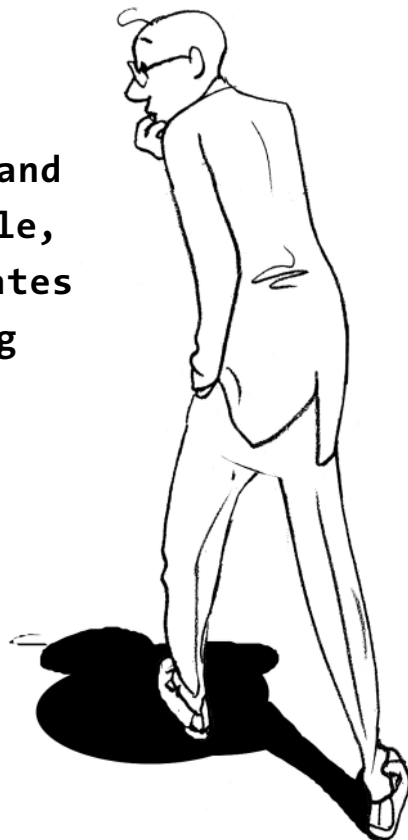
Bank ownership also varies widely. The portion of total bank assets in the hands of the state, for example, ranges from 98 percent in China to 75 percent in India, 32 percent in Brazil and zero in the United States. Despite the overall trend in recent years toward less government ownership (India, Egypt and Indonesia fit here), about 40 percent of the world's population lives in countries in which the majority of bank assets are in state-owned institutions. The percentage of total bank assets that are foreign-owned, in turn, ranges from 99 percent in New Zealand to 21 percent in Saudi Arabia and zero in Taiwan.

Furthermore, the concentration of bank assets varies greatly. Measured in terms of the percentage of assets accounted for by the five largest banks, the figures range from 99 percent in Finland to 70 percent in South Korea and 23 percent in the United Kingdom. Nearly half of the 152 countries surveyed explicitly insure bank deposits – more than a threefold increase in the last 20 years.

### **DIFFERENT STROKES**

The degree to which banks are permitted to engage in securities, insurance and real estate activities, as well as to own or to be owned by commercial firms, differs widely. Countries including Estonia and Germany are very permissive in this respect, whereas others, including Libya and Nicaragua, are severely re-

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strictive. The United States recently changed from being very restrictive to very permissive. At the same time, however, Congress decided to sustain the separation of banking and commerce. The result: Bill Gates can own a bank, but Microsoft cannot.

The most restricted bank activity among countries is real estate development and ownership, with insurance underwriting and selling not far behind. The least restricted is securities underwriting and brokerage. Indeed, of the 152 countries covered in the most recent survey, real estate activities were prohibited in 48 countries and insurance activities were prohibited in 39, whereas securities activities are prohibited in only 4 countries. Furthermore, more countries permit unrestricted ownership of banks by commercial firms (21) than the ownership of commercial firms by banks (10).

#### **COMMAND AND CONTROL**

Only 26 countries in the survey, among them the United States, assign banking regulation

to multiple authorities. The remaining 126 have a single regulatory authority, with the central bank in charge in slightly more than half. The terms of the public officials who head the bank regulatory agencies also vary widely. In the United States, for example, the governors of the Federal Reserve Board are appointed to 14-year terms, while in Italy the governor of the central bank enjoys life tenure. By contrast, in Brazil the governor serves at the pleasure of the president – and thus may serve a week or less, as some governors have done in the recent past.

In 86 countries, the authorities can supersede shareholder rights and declare a bank insolvent. Meanwhile, 78 countries follow the United States in using measures of deteriorating solvency to force automatic corrective actions, while 74 countries give regulators some discretion. In 30 countries, regulators cannot meet with external bank auditors to discuss their reports without bank approval, and in

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46 countries auditors are not legally required to report bank misconduct to regulators. In 63 countries, regulators cannot suspend the directors' decision to distribute bonuses to executives. Some 55 countries hold their regulators legally liable for their actions, while 95 (including the United States and Britain) do not.

The courts frequently backstop the regulators. In the majority of countries (78 of 147) a court order is required to appoint a liquidator in the event a bank becomes insolvent. Even in the case of other regulatory actions, like superseding shareholder rights, replacing management, or license revocation, court approval is required in 22 countries.

### WAIT, THERE'S MORE

The new database also provides information on capital regulations, foreign-loan limitations, entry restrictions and deposit-insurance plans, among other regulatory practices. Banks in 22 countries are prohibited

from making loans abroad, and in 17 countries foreign entry through the establishment of a branch is prohibited. Every country except one has a minimum capital requirement that conforms to the Basel I guidelines, but in 122 countries the requirement does not vary with market risk.

The rules of deposit insurance also differ. Of the 77 countries with insurance plans, depositors in 14 were not compensated to the extent specified by law the last time a bank failed. In 22 countries, moreover, deposit insurance fees are not linked to assessments of bank risk-taking.

### GROUP THINK

Some of the more interesting differences among countries are evident when they are categorized according to various characteristics. Consider, for example, the following groupings:

#### Lower-income countries:

- Impose more restrictions on bank activities.
- Maintain easier capital requirements.
- Have a lower degree of private monitoring.
- Are more likely to have government ownership of banks.
- Deny a greater percentage of market-entry applications.



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- Have one-seventh the percentage of banks rated by an international credit rating agency that higher-income countries have.

#### **Poorer countries:**

- Place more limitations on foreign ownership of banks and foreign bank entry through branches.
- Maintain lower requirements on bank capital.
- Have bank supervisors with shorter tenures.
- Are one-third as likely to have explicit deposit insurance plans.

#### **European Union members:**

- Are less restrictive in allowing banks to engage in securities, insurance and real estate activities, as well as the mixing of banking and commerce.
- Are less restrictive with respect to the ownership of banks by commercial firms.
- Deny a lower percentage of market-entry applications, both domestic and foreign.
- Are more stringent with respect to capital requirements.
- Have longer supervisory tenure.
- Give supervisory authorities more independence.
- Have less bank ownership by foreigners and by their own governments.

#### **Organization of Economic Cooperation and Development countries:**

- Are less restrictive with respect to the activities of banks and the mixing of banking and commerce.
- Reject a lower percentage of domestic and foreign bank-entry applications.
- Have more-stringent capital requirements, but have assigned less supervisory power to government agencies.
- Rely more on private monitoring and corporate governance.

#### **Offshore financial centers**

- Display the highest degree of foreign ownership.
- Have the highest percentage of domestic entry applications denied.
- Have the least degree of private monitoring and external governance.

#### **CHOICES, CHOICES, CHOICES**

The data suggest that countries do not choose bank regulations in isolation; rather, their choices reflect broad approaches to the role of government in the economy. Some governments prefer a hands-on approach where the authorities: (a) own a substantial portion of the banking industry, (b) restrict banks from engaging in nonlending activities, (c) limit the entry of new domestic and foreign banks, and (d) impose tight controls on bank practices. Others place comparatively greater emphasis on forcing banks to disclose accurate information as a means of facilitating private-sector monitoring and governance.

These observations led us to investigate which of the two broad approaches to bank regulation works best. One, which we call the public-interest approach, stresses that market failures – the high costs of obtaining information and enforcing contracts – interfere with the incentives and abilities of private parties to monitor and discipline banks effectively. It follows from this perspective that a powerful supervisory agency that directly monitors and disciplines banks can improve bank operations. Designing banking policies on the basis of the public-interest approach assumes that there are market failures and that official regulators have the incentive and capability to correct them.

The other view, which we call the private-interest approach, questions whether official agencies have the incentive and ability to fix market failures and to promote the efficient



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operation of banks. The private-interest approach holds that politicians and appointed regulators – like everyone else – maximize their own interests, not those of the society as a whole. Thus, they may well abuse their authority, diverting credit to benefit those in power. Moreover, private bankers, maximizing their interests, will have the incentive to manipulate the regulatory process for their own benefit. Under these circumstances, policies that strengthen official oversight may reduce bank efficiency and intensify corruption

in lending by tempting regulators to feather their own nests.

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, the most effective approach to bank regulation is to empower private monitoring of banks. Specifically, the private-interest approach argues that effective information disclosure rules and sound private-contract enforcement systems allow the market to do

what regulators don't. This is not a *laissez-faire* approach to regulation. On the contrary, the private-interest approach stresses that a strong legal and regulatory environment is needed to contain information and contract enforcement costs.

Our research provides cross-country empirical evidence on these contrasting approaches to bank regulation, including analyses of the role of legal and political institutions in determining the effectiveness of different banking sector policies.

#### **WHAT WORKS AND WHAT DOESN'T**

Our results are broadly consistent with the private-interest view. As it predicts, regulations that force banks to disclose accurate information to the public tend to: (a) increase the extension of credit to the private sector, (b) increase the efficiency of bank intermediation, and (c) reduce corruption in lending. For example, bank corruption would decrease significantly if a country not doing so were to adopt stricter regulations on information disclosure and were to promote private-sector monitoring. 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.

Our analysis of banking-system crises also demonstrates the importance of the incentives facing private investors. For example, we find 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 of crises.

By contrast, we found little evidence sup-

porting the public-interest view of regulation. Giving official regulators greater power (e.g., to force a bank to change its internal organizational structure, suspend dividends, replace managers and directors or take legal action against auditors for negligence) never seems to enhance bank efficiency or reduce bank fragility. Similarly, greater government ownership of banks, restrictions on bank activities or limitations on the entry of new banks never seems to be beneficial.

Specifically, countries that grant their regulators greater disciplinary powers have lower levels of bank development and greater corruption in lending. Governments that heavily restrict bank activities and impede entry have banks that are less efficient and more costly to operate. And countries with greater government ownership of the banking industry have less banking-system development. We also found that restricting banks from diversifying into non-lending activities or prohibiting them from lending abroad increases banking-system fragility.

The evidence is thus broadly consistent with the private-interest view. In some cases, we do find that well-functioning political and legal institutions nullify the negative effects of empowering direct official oversight of banks. But even in these cases, the results do not suggest that empowering direct official oversight improves bank operations.

#### **BASEL II AND BEYOND**

Our 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 are able to assess the general impact of stringent capital regulation. And here, our research fails to find a significant impact on bank development, efficiency, stability or corruption.



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One interpretation of the lack of significance is that the standardization of capital regulations orchestrated under the Basel rules makes it difficult to measure the relationship between capital regulations and bank performance. Alternatively, the lack of 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. Yet another possibility is that banks have found ways to evade capital regulations through various accounting methods when they are sufficiently inconvenient.

Nor does our cross-country analysis support the second pillar emphasizing strong regulatory powers. For most countries, strengthening official regulation reduces bank performance and stability without compensating benefits. Unless the country is a “top 10” nation in terms of the development of its legal and political institutions, muscular regulation impedes the flow of credit to worthy firms and leads to greater corruption in bank lending.

By contrast, our results do support Basel II’s third pillar – market discipline. Regulations that require transparency and that strengthen the ability and incentives of the private sector to monitor banks tend to promote sound banking.

### WHY COUNTRIES MAKE THE CHOICES THEY DO

Perhaps not surprisingly, the data indicate that countries with more open, competitive, democratic political systems that have effective constraints on executive power tend to rely more on private monitoring, impose fewer regulatory restrictions on both bank ac-

tivities and the entry of new banks, and give government-owned banks less of a role. In contrast, countries with more autocratic political institutions that impose ineffective constraints on the executive tend to rely less on private monitoring and more on command-and-control regulation.

### LAST THOUGHTS

Our research bolsters the case for paying close attention to the foundations of the financial sector. Without good information, and of course, without adequate incentives, market participants will not be able or motivated to monitor banks effectively. Although regula-

tion was not found to be effective along a range of criteria, this does not mean that regulation does not have a role in strengthening banking. Rather, it suggests that regulation should be indirect: the regulators’ job should be

to verify that the information being disclosed by banks is accurate, and to penalize banks that provide false, misleading or inadequate information. This is a critical role, and one that can be realistically achieved in most countries.

In contrast, Basel II puts the burden on regulators to detect problems in banks, to stay on top of the latest advances in risk management and to avoid abusing their powers. Our research suggests that all three burdens are too much for regulators to bear. While it is true that some members of the Basel Committee have said that it is moving toward greater reliance on market monitoring, we believe that developing countries should not wait for this evolution. They should put greater reliance on market monitoring and governance immediately. **M**

