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## Toward Transparency: New Approaches and Their Application to Financial Markets

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Tara Vishwanath • Daniel Kaufmann

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*The Asian financial crisis in the late 1990s not only highlighted the welfare consequences of transparency in the financial sector but also linked this relatively narrow problem to the broader context of transparency in governance. It has been observed that objections to transparency, often on flimsy pretexts, are common even in industrialized countries. This article argues that transparency is indispensable to the financial sector and describes its desirable characteristics: access, timeliness, relevance, and quality. The authors emphasize the need to weigh the costs and benefits of a more transparent regulatory policy, and they explore the connection between information imperfections, macroeconomic policy, and questions of risk. The article argues for developing institutional infrastructure, standards, and accounting practices that promote transparency, implementing incentives for disclosure and establishing regulations to minimize the perverse incentives generated by safety net arrangements, such as deposit insurance. Because institutional development is gradual, the authors contend that relatively simple regulations, such as limits on credit expansion, may be the most reasonable option for developing countries. They show that transparency has absolute limits because of the lack of adequate enforcement and argue that adequate enforcement may be predicated on broader reforms in the public sector.*

Among policymakers there is growing recognition of the importance of transparency to the mechanisms that sustain welfare and development—economic markets and institutions of governance. In the economic sphere greater availability of reliable and timely information improves resource allocation, enhances efficiency, and increases the prospects for growth. In the recent literature on financial crises, lack of transparency is cited as one of the factors that either caused or contributed to the prolonged crises.<sup>1</sup> This literature also highlights the possible links between transparency, good governance, and economic stability. Greater openness and wider information sharing enable the public to make informed political decisions, improve the accountability of governments, and reduce the scope for corruption. Nonetheless, many otherwise open and democratic societies have adopted regula-

tions that curtail transparency not only in financial markets but also in the broader sphere of governance.

Despite the perceived importance of transparency, few theoretical or empirical studies have examined its role in enhancing long-term growth and improving the stability of markets. Conceptual work suggests that increased transparency may not enhance welfare and may in fact increase market volatility (see Furman and Stiglitz 1998 for examples). The absence of empirical work derives in part from the difficulty of identifying and measuring “transparency,” given that it deals with agents who are hiding information. Thus, the challenge is to define a measure of transparency that is empirically tractable. Such an exercise will highlight the requirements of the data as well as enable us to assess its determinants and evaluate its impact on the outcomes of interest.

This article reviews the existing literature on transparency, focusing on its role in promoting greater financial stability and highlighting remaining gaps in knowledge. Three specific challenges are discussed: meeting infrastructure needs by developing standards for quality, compliance, and enforcement; addressing regulatory needs by improving incentives for better disclosure; and installing countervailing regulations to minimize perverse incentives, such as those induced by deposit insurance or bailout schemes. To this end we also discuss the role of international organizations in helping design and implement the broader and more complex disclosure requirements demanded by the integration of world financial markets and the growth of innovative financing mechanisms.

## Defining and Measuring Transparency

For the purposes of this article, transparency describes the increased flow of timely and reliable economic, social, and political information about investors’ use of loans; the creditworthiness of borrowers; government’s provision of public services, such as education, public health, and infrastructure; monetary and fiscal policy; and the activities of international institutions. Alternatively, a lack of transparency may exist if access to information is denied, if the information given is irrelevant to the issue at hand, or if the information is misrepresented, inaccurate, or untimely. The agent responsible for the lack of transparency may be a government minister, a public institution, a corporation, or a bank. Thus, a working understanding of transparency should encompass such attributes as access, comprehensiveness, relevance, quality, and reliability.

- *Access.* Laws and regulations ensure (at least in principle) that information is available to all. But information must also be accessible. Accessibility is aided by the institutions and venues that facilitate its flow, including newspapers,

radio, television, public notices, the Internet, and word of mouth. Lack of education is detrimental to transparency because it limits an individual's ability to access, interpret, and respond to information. Although strong equity considerations underlie the need for access, it is often profitable to delay or to limit access to useful information, in which case access becomes hostage to the ability to pay. There is thus a need to enforce timely and equitable dissemination of information.

- *Relevance.* Ensuring that information is relevant is difficult because relevance may depend on the needs of the user. For example, depositors need information to ensure the safety of deposits, investors need information about liabilities and risks, and the public needs information about current economic conditions, government policies, and so forth. Paradoxically, as sources of information, such as the Internet, proliferate, information overload threatens to dilute the ideal of relevance.
- *Quality and reliability.* To be effective, information should be fair, reliable, timely, complete, consistent, and presented in clear and simple terms. Quality standards must be set and then monitored by external agencies or auditors or by the standard-setting organizations. Consistency in the processes used to obtain information and in the formats of the information disseminated ensures comparability and so allows the individual to assess changes in the data over time. The criteria and methodologies used for gathering and interpreting the information, as well as any changes in methodologies, should be fully disclosed to prevent the deliberate withholding or distortion of information. Dishonest reporting can be deterred by the use of various watchdog institutions, ranging from professional accountants, credit agencies, the press, stakeholders, and even academic researchers (Kane 2000). Ensuring data quality and reliability is often a methodological and empirical challenge even for institutions and individuals of the highest probity.

### *Measuring Openness*

Conceptually, a statistical measure of transparency is the precision of the information that is obtained, which is in turn a function of its quality and relevance. Lack of transparency in the case of accounting information, for example, may be measured by comparing a firm's officially disclosed balance sheet information with the assessments of auditing agencies that investigate firms for credit approval. In a highly transparent firm, there will be little discrepancy between the officially disclosed information and that provided by the auditors. (Of course, a prerequisite for such measurement is the public availability of the information.)

A serious impediment to measuring transparency is poor data quality—a lack of detailed information on publicly disclosed information, on the various disclosure standards, and on evaluations by independent auditors of the categories of information disclosed. With improved data, one can systematically measure transparency, iden-

tify its determinants, and quantify its impact on the relevant economic variables.<sup>2</sup> Recent attempts to measure transparency have used such proxies as a “weak rule of law” and “corruption” that are linked to a lack of openness but whose absence does not necessarily ensure transparency. This approach can be refined by formulating an index using proxies for the characteristics required. An attempt to construct an index of financial transparency is described later in this article.

### *Limits to Transparency?*

Is transparency always desirable? Proscriptions against disclosure abound in all societies. Is there a legitimate reason for withholding certain information?

As Stiglitz (1999) has argued, societies’ preferences should favor greater openness and transparency. The economics literature supports the notion that better information will improve resource allocation and efficiency. Disclosing financial information directs capital to its most productive uses, leading to efficiency and growth. Lack of transparency can be costly both politically and economically. It is politically debilitating because it dilutes the ability of the democratic system to judge and correct government policy by cloaking the activities of special interests and because it creates rents by giving those with information something to trade. The economic costs of secrecy are staggering, affecting not only aggregate output but also the distribution of benefits and risks. The most significant cost is that of corruption, which adversely affects investment and economic growth.<sup>3</sup>

Although arguments against transparency may be justified in a few instances on the grounds of privacy and confidentiality, those who hold this position need to counter not only the instrumental benefits of transparency but also powerful arguments about the rights of citizens to know. More dubious exceptions to transparency are those advanced on the grounds of national security, stability, tactical negotiations, or deference to public unity. Such exceptions may be warranted in certain narrow circumstances, but reductions in transparency should be limited, and the limits exposed to public debate. Particular scrutiny should be directed at invocations of confidentiality, market stability, or national security.

Research to inform such debates fails to qualify the arguments for and against transparency. For example, arguments about the need to limit the transparency of policy setting by a country’s central bank are not borne out empirically, although a theoretical literature is willing to entertain the notion. Theoretically, a greater and less volatile flow of information about the decisions of the central bank should be just as likely to stabilize and rationalize financial markets as it is to disrupt and corrupt them. Indeed, it is probably true that the less accountable the agency, the more transparent it should be. It is not evident, however, that more information can strengthen financial systems. Furman and Stiglitz (1998) cite examples in which more information may worsen credit rationing or increase price volatility. Clearly, more research,

both conceptual and empirical, is needed to resolve this debate and its implications for the behavior and incentives of firms and individuals and for economic outcomes.

### *Limits to Voluntary Disclosure*

Although transparency may be desirable, markets rarely induce socially desirable levels of transparency, not to mention full and voluntary disclosure of information. There are many reasons why this is so. First, costs are associated with such disclosure. Collecting, organizing, and disseminating information requires time, effort, and money. Agents will thus reveal information up to the point where the marginal benefit from disclosure equals marginal cost—typically that point is reached before full disclosure. Second, positive payoffs may come from nondisclosure. For example, where agents interact with each other strategically, revealing more information may result in a loss of competitive advantage, which in turn might reduce the firm's profitability. Moreover, nondisclosure allows the individual who has the information to benefit from it by offering the information at a price, which leads to innovation. For example, it is precisely because hedge funds are not transparent that they are able to generate profits. If their arbitrage strategies were known, they could be replicated. In such circumstances disclosure regulation may not be desirable; given the costs, voluntary disclosure may be socially optimal (Fishman and Haggerty 1997).

Third, the presence of externalities may limit the disclosure of information. Externalities may arise when firms' values are correlated, so that information pertaining to one firm may be used to value other firms. Theoretical work suggests that such information spillovers hamper economic efficiency and prevent entrepreneurs and firms from attaining the socially optimum level of information (Admati and Pfleiderer 2000). Externalities also explain why markets underinvest in monitoring and enforcing rules to ensure transparency. In part, this must be ascribed to the fact that those who monitor and enforce provide a benefit to all yet receive no recompense from other beneficiaries.

The "public-good" properties of information suggest that government should take care to protect the public by creating rules and regulations specifying disclosure requirements about categories of information, frequency of disclosure, and standards for disclosed information. Moreover, transparency alone cannot always ensure the production of reliable information; in such cases, there may be a need to impose accountability through enforcement. Generally, the benefits of transparency are limited by the inherent difficulties of obtaining information in rapidly changing environments. For example, sophisticated financial instruments that would make timely assessments of the net worth of banks and firms are unreliable because markets respond to constant changes in external factors. Achieving transparency therefore may not be sufficient. Enforcement mechanisms that ensure accountability by punishing fraudulent behavior are also essential. In such circumstances, regulations may be

necessary to minimize risks and ensure stability. Such regulations need to balance the costs and benefits from increased disclosure in distinct circumstances.

### *Regulation in Context*

In general, disclosure regulation that either mandates or encourages transparency may be justified when externalities are present and information is costly. The decision to introduce disclosure regulation, however, as well as the specific implementation of such regulation, warrants careful consideration.

First, policymakers must determine whether greater transparency would necessarily improve economic outcomes (Furman and Stiglitz 1998). According to Hirshleifer (1971) in certain instances more information may cause speculation and lead to greater market volatility. A more recent study by Bushee and Noe (2000) finds that improvements in disclosure practices are correlated with subsequent increases in stock market volatility. Apparently, a policy of greater disclosure skews the composition of investors toward those with a strong propensity to risk; the prevalence of fickle traders willing to buy and sell in hopes of short-term gain leads to greater volatility.

Second, where full disclosure is justified, policymakers must determine the kinds of information to be disclosed, the agents required to provide the information and verify its quality, and the enforcement required to ensure compliance. The literature suggests that in some circumstances policy should support only certain kinds of disclosure. Blinder (1998) argues that transparency of central bank policies makes the bank's reputation more sensitive to the outcomes of its policies. Faust and Svensson (1998) qualify this position, arguing that if the central bank's reputation is completely independent of its actions, the public loses an important constraint on the bank's behavior. Their theoretical modeling suggests that the results may be higher-than-average and more variable inflation and unemployment. However, this report has not been confirmed empirically. In an attempt at striking a balance on this issue, the U.S. Federal Reserve Board releases minutes of open-market committee meetings with a six-week lag, deleting confidential information on the names of individuals, foreign banks, and so forth.

Third, once the extent and nature of disclosure have been decided, regulation policies should be tailored to local circumstances, that is, to the specific institutional and market environment. In developing countries with weak institutional and legal environments, the state must assume a greater role for providing information. As countries develop, the private sector often evolves to meet information needs. In the United States, for example, such institutions as the New York Stock Exchange (a cartel of traders that sets commissions and limits entry) subject companies that apply for listing on the exchange to stringent screening that encourages voluntary disclosure and prevents purely speculative or bogus ventures from being listed.



In developing countries, globalization and the integration of markets—financial markets in particular—have heightened the demand for transparency, which is now outpacing the capacity to provide it. Governments have undertaken innovative experiments that rely on market-like mechanisms to induce firms to disclose information. Involving local communities in monitoring government services has been shown to foster transparency and lower corruption in some cases.

## Transparency and Financial Stability

Lack of information and uncertainty are inherent features of finance, because capital markets are engaged in trade not only in money but also in information itself. Investors must gather information to select projects and to monitor their performance. Both undertakings present specific challenges. One of these is the problem of adverse selection, which arises when lenders do not have as much information about the risks involved in a project as do the firms seeking the financing for the project. To avoid the consequences of selecting inappropriate borrowers, lenders charge higher interest rates, which in turn induce borrowers to take on riskier projects (the problem of moral hazard). Accurate information is also needed to monitor and enforce loan contracts. To generate good returns, lenders have to design contracts that improve the availability and quality of information about the individual or the enterprise.

### *Transaction Costs in Financial Markets*

Individuals who monitor the performance of firms or banks provide a benefit to all shareholders or depositors but invest resources in this monitoring only to the level of their private benefit, not the broader socially desirable level. Imperfect markets and credit rationing occur because information is costly; credit rationing may be destabilizing because those who are willing to pay higher interest rates may not be those who put the loans to best use. Contagion, exemplified in bank panics, can occur when the troubles of one institution “contaminate” public perceptions about the entire industry. Depositors or investors who cannot distinguish individual bank solvency run on all banks, even solvent ones. The vulnerability of financial systems may worsen these problems. The failure of a major financial institution, stock market crashes, and recessions may all increase uncertainty in the financial markets, worsen information asymmetries, and aggravate adverse selection problems.

The public-good properties of information provide a rationale for governments to play a larger role in the disclosure of information. But whether such intervention can sufficiently mitigate other adverse consequences of information disclosure is unclear. Will more disclosure reduce problems of credit rationing, lower market volatility, or avert banking crises?

### *Evidence on the Relation between Transparency and Financial Crises*

The fiscal and economic costs of the banking crises in the 1980s have sparked heated debates about the policies that are crucial to promoting financial stability (Caprio 1999; Goldstein and Turner 1996). Lack of transparency has been suggested as one cause of these crises. By now the story is familiar; it turns on limited information about mutual guarantees of the net worth of firms and banks and on the use of insider relations to mask poor investments. Once a downturn set in, poor transparency made it difficult for investors to distinguish between healthy and unhealthy firms and banks; investors consequently abandoned them all, which caused bank runs and ultimately destabilized economies that were often already fragile.

Few attempts have been made to systematically analyze the role that lack of transparency played in these crises. Several questions should be addressed. Does the lack of transparency cause a crisis or prolong it? Will greater transparency prevent banking crises? Has the need for transparency increased with global financial integration and liberalization of financial markets? Does more transparency lead to greater market discipline, and can it replace regulation (that is, deposit insurance)?

Empirical research suggests that where financial liberalization takes place in the absence of transparency, a financial crisis is more likely (Mehrez and Kaufmann 2000), although a causal link, is difficult to establish. Corruption may be associated with a lack of transparency (Martin and Feldman 1998), but evidence linking corruption to crises in East Asian countries is weak (Furman and Stiglitz 1998). Furthermore, even the Scandinavian countries, which are among the least corrupt in the world, suffered from banking crises at the beginning of the 1990s. Moreover, countries where corruption is not a problem may not have transparent banking systems if regulations do not require disclosure. Corruption and lack of rule of law may make it difficult to achieve transparency, but they do not measure transparency per se.

Caprio (1999) goes a little further in evaluating the role of information and incentives in financial crises. In an empirical analysis, he develops a scoring system to compare the regulatory environment in 12 East Asian and Latin American countries. The ranking is based on whether bank ratings are required, on the number of top-10 banks reviewed by international rating firms, and on an index of corruption. The rankings are broadly consistent with the overall ranking of regulatory environments.<sup>4</sup>

The study finds that the hardest-hit Asian economies were those with the poorest overall scores and lower-than-average levels of transparency. Singapore, which recorded the highest score both overall and in terms of transparency, was also the least affected by the crisis. Although the relative importance of the different indicators is not assessed, the evidence suggests that the quality of the regulatory environment, including its transparency, may be particularly important in the presence of explicit deposit insurance. The study also suggests that safety nets, such as deposit insurance,



tend to increase the problem of moral hazard and blunt the incentives for depositors and bank officers to acquire or use information. In addition, such policies as capital controls may be rendered ineffective if balance sheet information masks the true liabilities of banks.

The evidence presented by Caprio (1999) does not support the hypothesis that a lack of transparency caused the financial crises in East Asia and Latin America. But the evidence does suggest that a lack of transparency may exacerbate a crisis. Bank runs may be averted by better disclosure that allows investors to distinguish healthy banks from insolvent ones. In general, more information strengthens market discipline, provided the information is timely and reliable and that other regulatory instruments are employed to improve the incentives to provide and use information and enforce compliance.

The evidence suggests that at least three means are available to achieve transparency: improving the rules and regulations governing disclosure, putting in place accounting practices to enforce quality, and designing safety nets to limit moral hazard.

### *The Importance of Sound Accounting and Auditing Practices*

A strong case can be made for strict accounting norms. Information must be reliable, based on sound principles and standards that enable investors and lenders to make consistent assessments of firms' activities and risk profiles. Accounting standards facilitate the interpretation, reliability, and comparability of information across enterprises and make it easier for investors to identify worthy firms and evaluate managers. Conversely, lapses in accounting norms can provide opportunities for misrepresentation as a way to divert assets.

A prevalent weakness of many accounting systems is the ease with which they can be manipulated to mask discrepancies between the accounting values and the real value of assets. Discrepancies typically result from asset attributes, such as risk or profitability, which are uncertain or can be misrepresented. For instance, the accounting valuation of long-term bonds typically ignores market expectations concerning interest rates. The Chilean financial crisis of the early 1980s and the savings and loans scandals in the United States were said to have resulted from such problems. In Chile, central bank loan guarantees to domestic banks were wrongly perceived by both domestic and international markets as absorbing the foreign-exchange rate risk attached to an impending devaluation. Thus, Chilean banks were able to borrow short term from the international market at 20 percent and lend the same money to domestic firms at 50 percent. The anticipated devaluation forced the borrowers to default, however, leaving the banks insolvent, and the Chilean government had to pay off bank depositors and foreign investors (Akerlof and Romer 1993).

*Implementation challenges to developing countries.* If industrial countries with well-developed institutions can fail to contain information failures arising from accounting problems, the task is likely to be all the more difficult for developing countries. In addition to weak accounting systems—owing, in part, to the lack of trained accountants and poor enforcement—developing countries often experience the following problems:

- Many developing countries have failed to establish rigorous accounting conventions. Thus, the true size of nonperforming loans is concealed from borrowers. Even if problem loans are identified, banks often do not have adequate reserves in place to cover their losses. Goldstein and Turner (1996) calculate the ratio of loan loss reserves to nonperforming loans for a sample of developing countries in the 1990s and find that on average the countries with the highest share of nonperforming loans (with the exception of Argentina and Malaysia) maintain the lowest coverage ratios.
- The lack of uniform reporting requirements and the absence of penalties for publishing false information prevent investors from distinguishing weak from strong banks (Goldstein 1997). Private credit-rating agencies, such as Moody's and Standard and Poor's, limit their coverage to 25 developing countries and serve only the largest banks in those countries.
- Poor information systems exacerbate the difficulties of assessing the creditworthiness of borrowers.
- Inadequate supervision and enforcement allow insolvent banks to continue to operate, extending new loans to unprofitable borrowers.

Poor accounting standards also render capital requirements and similar policies inadequate. For example, the Basle Capital Adequacy Accord (Basle Committee on Banking Supervision 1998) may not be adequate for developing countries with poor accounting and supervision. Implicit in the Basle standards is the assumption that banks have adequate provisioning for bad loans. Because this may not be the case and because related-party lending may be prevalent, the Basle accord provides a very meager cushion of safety.

Evidence from countries beset by the recent financial crises suggests that they were affected by accounting failures. More specifically, the financial information that was presented did not adequately portray the underlying risks in firms and banks (box 1).

*Guidelines for implementing improved accounting practices.* There are four general guidelines that developing countries can follow to improve their accounting practices. First, governments should make every effort to promote the use of internationally acceptable accounting standards and methodologies. At the same time, the private sector may have an important role to play. In the United States, private firms prepare credit reports on individuals and routinely share them with investors. A report by the

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**Box 1. Accounting and the Asian Crisis**

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A 1998 study for the UN Conference on Trade and Development (Rahman 1998) reviewed accounting practices in five East Asian countries (Indonesia, Malaysia, the Philippines, the Republic of Korea, and Thailand) to assess how actual accounting practices deviated from published accounting statistics, such as related-party transactions, foreign currency debt, derivative financial instruments, and contingent liabilities. The findings suggest that these countries did not follow International Accountancy Standards and that this likely triggered the financial crises. Users of the accounting information were misled and were not able to take precautions in a timely fashion.

Several findings in the Rahman study are particularly telling. For instance, only a third of the total number of companies sampled disclosed information regarding related-party borrowing and lending, revealing weak enforcement of the disclosure requirements. Although 60 percent of the sample supplied information on foreign currency debt in local currency, only 19 percent disclosed gains and losses on foreign currency translations. Furthermore, the failure to set aside appropriate reserves to cover loan losses limited lenders' ability to evaluate the size of the banks' nonperforming loans. In addition, more than 80 percent of those companies that used derivative instruments did not disclose the interest and losses on these instruments, or on the terms, conditions, and policies that determine whether these contracts will be honored. Almost no company disclosed the risk associated with the derivatives in their portfolios. Less than half of the respondents recognized contingent liabilities as a category, so they were able to avoid any disclosure of the amount of such liabilities.

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Working Group on Transparency and Accountability (1998) recommends exploring government partnerships with private institutions and organizations to help in the assessment and utilization of information.

Second, the rules concerning accounting and supervision need to be tailored to the country's specific infrastructure and regulatory environment. Countries may justifiably wish to maintain some independence in setting national standards based on their preferences for risk or their institutional limitations. Efforts to harmonize accounting standards across countries as a first step in instituting a uniform international code have run into difficulties for just these reasons.

Third, governments must improve enforcement. Sound accounting standards have little use without legal and institutional systems to supervise and enforce them. Devising an effective supervision system requires careful research into the structure of the regulatory system to understand the details of the supervision process and identify its weaknesses. In many developing countries, bank owners and officers are well connected politically and consequently often escape punishment for failing to comply with existing standards. Finding the exact loopholes in supervision and taking the proper actions to close them are important steps in enforcing accountability.

Fourth, international institutions can and should provide technical assistance to strengthen and implement accounting standards. These institutions also can improve compliance by making provision of loans conditional on adherence to the standards.

### *The Appropriate Design of Regulation*

Information provision and monitoring, as promoted through accounting standards, is not sufficient if appropriate behavior is not enforced. Designing regulations for financial market information is a complex matter; indeed, regulation may not always be warranted. When do financial institutions need to be regulated? Should controls be imposed on borrowing, on the maturity and risk structure of assets and liabilities, or on loan provisioning? Information asymmetries in financial markets complicate efforts to devise regulatory policies that mitigate perverse incentives and stabilize markets. The level of financial risk that individuals and institutions are willing to assume depends on the reliability of the information provided and on the regulatory environment.

### *Deposit Insurance and Disclosure: A Tradeoff?*

Safety net provisions, such as deposit insurance, that mitigate the consequences of bank failure may also have a destabilizing effect because they offer a form of limited liability that induces two incentive problems. The first problem is that safety nets encourage overinvestment in risky projects—a problem of moral hazard. The second problem is that safety nets induce behavior, described as “looting” or “bankruptcy for profit,” that allows owners and managers to use corporate assets to pay themselves personal dividends and salaries. In the case of insolvency, the government bears the cost of both these problems in the form of insurance payouts and bailouts (Akerlof and Romer 1993). These two incentive problems are often complementary, and it may be difficult to distinguish between them, especially as causal precipitants of adverse shocks.

Though better information may mitigate these problems, deposit insurance may reduce the incentive for depositors to use that information and to punish banks that make risky investments by lowering deposits or demanding higher deposit rates. Safety nets therefore have to balance protection against liquidity crises and the moral hazard problems that give rise to imprudent banking practices.

The assumption that full disclosure can replace the need for a safety net is the basis for at least one alternative framework. Since 1996 New Zealand has provided no deposit insurance and has abolished prudential ratios except for capital requirements and ratios on connected lending. Meanwhile, it implemented the most extensive disclosure requirements in the world, including frequent external audits and credit-rating disclosure. To give these laws teeth, managers of financial institutions have been made personally liable and accountable for any discrepancies (Cordella and Yeyati 1997).

At least three conditions are required for the success of this market-reliant approach to financial system management. First, incentives for market discipline may depend on whether a no-bailout position in the event of bank failure is credible. In Venezuela,

political pressure forced the government to bail out the banks despite a previous promise that it would not take such a step (De Krivoy 2000). In Japan, regulatory forbearance (implicit insurance) stands in for unpopular explicit bailouts (Calomiris 1997). Indeed, there is a debate about whether ambiguity in the rules governing safety nets is preferable to transparency. Theoretically, ambiguity reduces the moral hazard by undermining the bailout guarantee and may improve credibility if the government decides against rescuing a failed bank. Countries have adopted different strategies. In the United Kingdom a 1979 banking act safeguards deposits and stipulates that the Bank of England need not support all banks; at the same time, the bank has discretionary power to provide assistance when it sees the threat of systemic failure (Cordella and Yeyati 1997).

Second, whether transparency leads to greater market discipline depends on the extent to which depositors take account of the information in placing their deposits, and whether this, in turn, limits the extent to which banks take excessive risks. Currently, there is no evidence on this matter or on depositors' ability to interpret information when it is available. If the ability to interpret information properly were indeed a limitation for depositors, it would call for more transparency in bank activities.

Third, disclosure requirements should not be considered a sufficient safeguard against financial crises. The notion that safety net schemes should be replaced by stricter disclosure requirements implies that greater transparency can avert crises and panics. The existing evidence, presented earlier, does not support this hypothesis.

More research, both theoretical and empirical, needs to inform the future design of comprehensive financial safety nets, including deposit insurance. Research should also address other necessary forms of intervention. Such evidence as exists on means of mitigating incentive problems in financial markets illustrates the merit of using combinations of simple, easily implemented policies, including limits on credit expansion and capital adequacy requirements based on the degree of risk. These interventions are beyond the scope of this article, but they are discussed prominently in Stiglitz and Bhattacharya (1999).

## The Limits to Financial Sector Reform

The success of reforms that focus on the regulation of financial markets depends on the institutions of governance. Thus far, we have assumed that governments will be motivated to increase transparency in the financial sector where feasible, but that assumption may be incorrect.

Such an assumption presupposes a different kind of transparency: one that relates to the integrity and accountability of governments. It links financial sector reform to broader reform of the system of governance. Suppose that government agents have the potential to extract bribes from private organizations in exchange for preferen-

tial treatment by the government bureaucracy. A system of poor accountability in the financial sector may facilitate such transactions by making it easier to hide illicit payments. In such a world, the lack of financial transparency and poor government accountability will be mutually reinforcing (box 2). This unregulated environment underscores the importance of working to improve transparency in the economy as a whole rather than in narrow sectors.

In sum, the evidence does not show that a lack of financial transparency caused the Asian financial crisis, but it does suggest that the lack may exacerbate such crises. Broadly, developing countries suffer from insufficiently rigorous accounting conventions, lack of uniform reporting requirements, poor information systems, and inadequate supervision and enforcement. Evidence suggests that the hardest-hit countries were those affected by accounting failures—specifically, those that failed to disclose financial information that reflected the underlying risks in firms and banks.

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**Box 2. Governance and Finance: Corruption in Indonesia**

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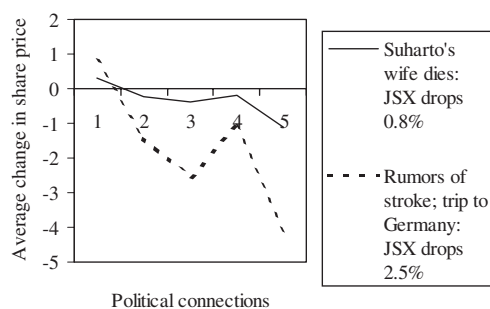
The system of patronage that evolved in Indonesia under President Suharto is a particularly infamous example of close ties between business and government. Many firms reportedly sought the assistance of those with close ties to the president to receive preferential treatment. Indonesia's financial markets were notoriously opaque, which made it impossible to document such misconduct or to stop the continued purchases of government favors. Thus, those with the potential to do so had little incentive to change the system.

The opacity of financial transactions makes it difficult to assess the extent of corruption, but some innovative thinking by Fisman (1998) is instructive. He looks at the reaction of the Jakarta Stock Exchange to news about President Suharto's health to estimate the value of political connections in that country. Figure 1 shows the market reaction to the death of Suharto's wife and to the announcement that Suharto would go to Germany for a health checkup. Both events raised doubts about the president's longevity, and in both cases the value of well-connected firms declined by more than the value of firms without connections. Note that the overall market declined by considerably more in reaction to news of the German hospital visit. Accordingly, the adverse consequences for well-connected firms (relative to less connected firms) were more serious in reaction to the trip to Germany (the dotted line is much steeper than the solid line). Building on these observations, Fisman computes that as much as a quarter of a well-connected firm's value may be attributed to political connections.

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**Figure 1. Market Reaction**

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Good governance is a predicate of transparency in the financial sector as well as in other areas of economic and social life governed by public institutions. Information is central to the design of public policy, including the administration of tax systems, delivery of public services, and regulation of the private sector—all activities that affect economic life and social welfare. Consequently, the lack of transparency in public administration is a debilitating constraint on policy implementation and its economic and social outcomes and is in its own right important to welfare and development (Vishwanath and Kaufmann 1999).

## Conclusion

Although the general preference is for more transparency, generally and in financial markets, achieving it carries costs as well as benefits. Many questions remain: Does more transparency lead to greater market volatility and, if so, under what conditions? Has the need for greater transparency increased with globalization? Can more transparency obviate the need for government regulation by inducing self-regulation? A systematic inquiry into these issues will help frame appropriate disclosure policies.

Although the moral hazard problems induced by deposit insurance may be averted by replacing it with more comprehensive disclosure requirements, as New Zealand has done, the experience of such countries as Venezuela, buttressed by cross-country empirical research, suggests that the success of such policies is contingent on several factors, including the credibility and independence of central banks and political actors, the behavior of banks and depositors, and the dynamics of financial crises, which are not well understood.

Transparency in and of itself is not sufficient without accompanying enforcement mechanisms. public institutions therefore need both to regulate disclosure and to enforce appropriate behavior. Indeed, as illustrated by the case of Indonesia, financial reform may be predicated on broader public sector reforms. Notably, the effectiveness of public institutions affects not only the performance of markets—including capital markets—but also the allocation of public goods and the distribution of risk and other implicit costs in an economy.

Subsuming more specific recommendations on transparency in financial markets, made earlier in this article, are therefore broader imperatives to improve transparency in governance. This agenda brings its own set of challenges and solutions. In particular, because institutions take time to develop, successful medium-term reforms often entail harnessing supplementary resources. On this the burgeoning literature on the promotion of transparency through public participation and consultation has developed a pertinent commentary.

## Notes

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1. Examples include mutual guarantees of firms' and banks' true net worth, and insider relations that mask poor investments.

2. An attempt is currently under way to measure accounting transparency using data from Indian firms and to assess its impact on investment activity (Bertrand and Mullainathan 1998).

3. There is a growing literature on the relation between corruption and growth in particular, initiated by Mauro (1995). More broadly, for several governance dimensions, see Kaufmann, Kraay, and Zoido-Lobaton (2000).

4. Other indicators in the regulatory ranking include capital position, loan classification, and liquidity position. In addition, the authors assess the operating environment in which banks function (using strength of property rights, creditors rights, and law enforcement as proxies).

## References

The word "processed" describes informally reproduced works that may not be commonly available through library systems.

Admati, Amant, and Paul Pfleiderer. 2000. "Forcing Firms to Talk: Financial Disclosure Regulation and Externalities." *Review of Financial Studies* 13(3):479–519.

Akerlof, George, and Paul Romer. 1993. "Looting: The Economic Underworld of Bankruptcy for Profit." *Brookings Papers on Economic Activity* 2:1–73.

Basle Committee on Banking Supervision, Transparency Sub-Group. 1998. "Enhancing Bank Transparency: Public Disclosure and Supervisory Information that Promote Safety and Soundness in Banking Systems."

Bertrand, Marianne, and Sendhil Mullainathan. 1998. "Measuring and Understanding Transparency." Working Paper. Massachusetts Institute of Technology, Cambridge, Mass. Processed.

Blinder, Alan S. 1998. *Central Banking in Theory and Practice*. Cambridge, Mass.: MIT Press.

Bushee, Brian J. and Christopher F. Noe. 2000. "Corporate Disclosure Practices, Institutional Investors, and Stock Return Volatility." *Journal of Accounting Research* 38(Supplement):171–202.

Calomiris, Charles W. 1997. *The Postmodern Safety Net: Lessons from Developed and Developing Countries*. Washington, D.C.: AEI Press.

Caprio, Gerard. 1999. "Banking on Crises: Expensive Lessons of Financial Crises." In George Kaufman, ed. *Research in Financial Services: Private and Public Policy*, vol. 10. Greenwich, Conn.: JAI Press.

Cordella, Tito, and Eduardo Levy Yeyati. 1997. "Public Disclosure and Bank Failures." IMF Working Paper 97/96. International Monetary Fund, Monetary and Exchange Affairs Department, Washington, D.C.

De Krivoy, Ruth. 2000. *Collapse: The Venezuelan Banking Crisis of 1994*. Washington, D.C.: Group of Thirty.

Faust, Jon, and Lars E. O. Svensson. 1998. "Transparency and Credibility: Monetary Policy with Unobservable Goals." Discussion Paper 1852:1–40. Centre for Economic Policy Research, London.

- Fishman, Michael, and Kathleen Haggerty. 1997. "Mandatory Disclosure." Working Paper. Northwestern University, Kellogg Graduate School of Business, Evanston, Ill. Processed.
- Fisman, Raymond. 1998. "Estimating the Value of Political Connections." Columbia Business School, New York. Processed.
- Furman, Jason, and Joseph E. Stiglitz. 1998. "Economic Crises: Evidence and Insights from East Asia." *Brookings Papers on Economic Activity* 2:1–135.
- Goldstein, Morris. 1997. *The Case for an International Banking Standard*. Washington, D.C.: Institute for International Economics.
- Goldstein, Morris, and Philip Turner. 1996. "Banking Crises in Emerging Economies: Origins and Policy Options." BIS Economic Paper 46. Bank for International Settlements, Monetary and Economic Department, Basle.
- Hirshleifer, Jack. 1971. "The Private and Social Value of Information and the Record to Inventive Activity." *American Economic Review* 61(4):561–74.
- Kane, Edward J. 2000. "Designing Safety Nets to Fit Country Circumstances: A Progress Report." Policy Research Working Paper 2453. World Bank, Development Research Group, Finance, Washington, D.C. Processed.
- Kaufmann, Daniel, Aart Kraay, and Pablo Zoido-Lobaton. 2000. "Governance Matters, from Measurement to Action." *Finance and Development* 37(2):10–13.
- Martin, Robert, and Estelle Feldman. 1998. "Access to Information in Developing Countries." Transparency International, Berlin. Processed.
- Mauro, Paolo. 1995. "Corruption and Growth." *Quarterly Journal of Economics* 110:681–712.
- Mehrez, Gil, and Daniel Kaufmann. 2000. "Transparency, Liberalization and Financial Crises." Policy Research Working Paper 2286. World Bank, World Bank Institute, Governance, Regulation, and Finance, Washington, D.C. Processed.
- Rahman, M. Zubaidur. 1998. "The Role of Accounting Disclosure in the East Asian Crises: Lessons Learned?" *Transnational Corporation* 7(3):1–52.
- Stiglitz, Joseph E. 1999. "On Liberty, the Right to Know, and Public Discourse: The Role of Transparency in Public Life." Oxford Amnesty Lecture, Oxford, U.K., World Bank. Processed.
- Stiglitz, Joseph E. and Amar Bhattacharya. 1999. "Underpinnings for a Stable and Equitable Global Financial System: From Old Debates to a New Paradigm." ABCDE Conference series. World Bank, Washington, D.C. Processed.
- Vishwanath, Tara, and Daniel Kaufmann. 1999. "Towards Transparency in Finance and Governance." Policy Research Working Paper. World Bank, Washington, D.C. Processed.
- Working Group on Transparency and Accountability. 1998. Report of the Working Group on Transparency and Accountability, International Monetary Fund, October 1998, Washington, D.C. Processed.