

## SYMPOSIUM KEYNOTE ADDRESS

### Financial Infrastructure in Emerging Economies

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The theme of this conference, financial intermediation in emerging markets, is a crucial public policy issue in the current global environment. The *Journal of Financial Intermediation* has played an important role in disseminating research on the design of financial contracts and financial institutions. I'm glad that the Journal is actively encouraging research in the area of economic development. As an official with the Federal Reserve, I have a strong interest in matters relating to financial stability. Recent events, especially the financial turmoil in fall 1998, show that in a world of global financial linkages, the stability of the financial system can be compromised by financial crises in emerging and transition economies. Academic research on how best to strengthen financial institutions in these emerging economies can therefore promote stability in countries with developed financial markets as well.

Recent crises in emerging and transition economies constitute a wake-up call. It was not too long ago that commentators spoke of the economic performance in East Asia as "miraculous." (For example, see *World Bank Policy Research Bulletin*, 1993; and references in Krugman, 1994.) This hyperbole was perhaps understandable. After all, in the 5 years preceding the Asian Crisis, industrial production in Indonesia, Malaysia, and the Philippines grew at a rate of over 11 percent per year. Korean output grew at approximately 9 percent per year (Halcomb and Marshall, 2001). This rapid growth was truly unprecedented and was associated with a dramatic increase in living standards and quality of life. It gave rise to hopes that other emerging and transition economies, especially those in the former Soviet Union, would enjoy similar growth as the benefits of free economic activity took hold.

It is now clear that economic growth is not a matter of miracles. The path to economic development is steep, precarious, and unpredictable. While it may be possible to avoid many of the pitfalls by implementing appropriate policy measures, we need to understand what went wrong in the countries affected by these crises. Only then can we understand the role of public policy in avoiding these mistakes.

The proximate causes of the recent financial crises are fairly clear. In the case of the Asian crisis, there was a maturity mismatch between assets and liabilities (Corsetti *et al.*, 1999). Essentially, these countries borrowed short-term from abroad to finance long-term investment projects. In the case of the Russian crisis of 1998, the government relied on revenues from oil exports to service its sovereign debt. Declining energy prices in 1998 induced a fiscal crisis, resulting in devaluation and default (Perotti, 2000).

But these proximate causes mask deeper structural flaws. Why did the Asian countries rely on short-term foreign investment? Why was the fiscal position of the Russian government so fragile? Could better public policy have avoided some of these problems?

One place to look for answers to these questions is in the financial infrastructure of these countries. By “financial infrastructure” I mean the entire set of legal, regulatory, and accounting institutions that support the effective functioning of financial markets and financial intermediation. Financial infrastructure is intimately tied to financial stability and economic growth. So an important question is: “What are the essential elements of financial infrastructure that are needed to facilitate economic performance in emerging and transition economies?” I’d like to give my take on this question, and raise some unresolved issues that further research might help address.

## ON FINANCIAL INFRASTRUCTURE

One important function of financial infrastructure is to promote growth through the effective mobilization of savings into productive capital and to channel this capital to its most productive uses. There are two fundamental ways this can be done: capital provision can be decentralized or centralized. That is, it can operate through many small investors in the capital markets, or capital can be provided mainly by large banks and other large investors.

Now, the distinction between these two approaches is somewhat arbitrary. An economy can obviously combine the two approaches. But we often see one or the other approach predominant in a given country, so let’s run with this distinction. Countries that rely on decentralized provision of capital are generally associated with greater market discipline, less political interference through regulation, and a more active process of Schumpeterian “creative destruction.” As a result, business decisions tend to better promote economic efficiency and productivity.

In contrast, countries with poorly developed capital markets often rely on more centralized provision of capital, usually through large banks. Therefore, firms are

less subject to market discipline, and political interference in the regulatory process is more likely. Governments have a greater tendency to extend “too-big-to-fail” guarantees to large inefficient enterprises. And economic decisions are all too often made to promote the interests of insiders rather than for reasons of economic efficiency.

So there seem to be decided benefits from a decentralized, market-based financial system. Unfortunately, the centralized form of financial organization is particularly common in emerging economies (LaPorta *et al.*, 1998). So it’s relevant to the theme of this conference to understand the interaction between a country’s financial infrastructure and its mode of capital provision.

There are three important elements I’d like to discuss when it comes to financial infrastructure. The first is the need for strong legal protection of the property rights of shareholders and other small investors. To see why shareholder protection is so important, consider how truly *weird* an equity contract is: An entrepreneur comes to you and says, “Invest your money with me, and I’ll pay you dividends whenever I feel like it.” Why would any small investor enter into such a contract? For small investors to participate in capital markets as outside shareholders, they need to be confident that they will be protected from fraud, that they will receive timely and accurate information, that their rights will be honored in any bankruptcy proceeding, and, more generally, that the playing field is fair.

While a legal system that protects the rights of small investors is perhaps most important, accounting and regulatory infrastructures are also vital. These three elements—legal, accounting, and regulatory—act like three legs of a stool underpinning the financial system. I’d like to consider each of these elements in turn, and see what lessons we might learn about them from the recent crises in emerging markets.

## ROLE OF LEGAL INFRASTRUCTURE

First, let’s consider the role of the legal infrastructure. A well-functioning legal system allows small claimants, both creditors and shareholders, to have their rights enforced. Two important elements in such a system are a well-functioning bankruptcy law and an efficient litigation system.

Why are bankruptcy procedures so important? Property rights are generally clear, and less important, when a firm is functioning well. But when the firm can no longer pay its bills, the enforcement of property rights becomes critical. Different claimants are trying to divide up an inadequate pie. This is the role of bankruptcy law. And by overseeing the orderly dissolution of firms, bankruptcy law plays an essential part in the process of Schumpeterian creative destruction as capital is recycled from less efficient to more efficient uses.

Bankruptcy procedures were problematic in the countries hardest hit by the Asian crises. (For an extensive discussion of the cases mentioned in the following two paragraphs, see Walker, 2000.) The Indonesian bankruptcy law was written in

1905 in Dutch, and had never been translated into the native language. In Thailand, there was a great deal of uncertainty whether a creditor's interests would be protected in a bankruptcy proceeding (Renaud *et al.*, 1998). As a result, creditors refused to provide funds to debtors experiencing temporary liquidity shortfalls. Korea had a business culture that regarded bankruptcy of large corporations as a national embarrassment. The bankruptcy law was rarely used, and insolvent companies were usually handled politically. Finally, the Russian bankruptcy code was applied very infrequently. As an anonymous Russian commentator noted, "when an entire country is insolvent, implementing bankruptcy is a delicate business."<sup>1</sup>

Of course, an effective legal infrastructure requires that the laws be enforced consistently. To accomplish this, the judiciaries must command public confidence. Here again, the countries involved in recent crises provide instructive examples. The litigation process in Thailand was extremely costly and time-consuming. It was generally avoided. In Indonesia and Russia, the courts were regarded by many as unreliable, with bribery and corruption all too common. A former State Enterprises Minister in the Indonesian government even described his country's judges as "auctioneers who hand down verdicts to the highest bidder."<sup>2</sup> In many countries of the former Soviet Union, much of the economy has been driven underground, away from rule of law. Clearly, a legal code does little good if the enforcement mechanism is compromised.

## ROLE OF ACCOUNTING INFRASTRUCTURE

The second element in a well-functioning financial infrastructure is a set of accounting rules that give outside investors high-quality information. Obviously, market discipline cannot take place without adequate disclosure of information about a firm's operations. Indeed, disclosure standards represent the "third pillar" of the Basel Committee's proposed revision of bank capital standards. (For an overview of the proposed revisions to the Basel Accords, see Bank for International Settlements, 2001.) When founded on high-quality standards for disclosure and transparency, accounting systems give investors confidence in the credibility of financial reporting. Without investor confidence, markets simply cannot thrive.

Economies with decentralized shareholders are typically associated with higher quality financial disclosure, while concentrated ownership is associated with a poorer quality of disclosure. But it is not clear which causes which. Atomistic investors demand greater disclosure, and vote "with their feet" if it is not forthcoming. Thus, market pressure can force better accounting standards even without government action. As an example, consider the "Neuer Markt," Germany's "New Market," established by the Frankfurt Stock Exchange to foster small high-tech

<sup>1</sup> Anonymous Russian commentator in "EIU ViewsWire (Russia)," *Russia Finance: Bankruptcy Petitions Soar* (4/26/99), quoted in Walker (2000).

<sup>2</sup> Former State Enterprises Minister Laksamana Sukardi, quoted in Caragata (2000).

companies. This new market imposed stricter accounting standards than generally required of German businesses.<sup>3</sup> No laws or government regulations required this. The firms listed in this market voluntarily took on these standards because they wanted to attract investors, and these investors demanded high-quality information.

In contrast, economies that rely on centralized capital provision generally see less pressure for public disclosure. For example, the typical equity firm in East Asia is a business group characterized by family cross-holdings. These firms are funded by bank loans, with little outside equity participation. When information needs to be disseminated about firm performance, it is often shared informally among these large shareholders and large creditors. Without outside investors, there is little demand for better public disclosure (see Ball *et al.*, 1999).

Thus, we have a self-reinforcing cycle: economies characterized by small investors demanding high-quality standards for public disclosure. In turn, this fosters the further development of capital markets conducive to small shareholders. In contrast, economies with more centralized capital provision do not generate a demand for standards of public disclosure. This retards the development of open capital markets, further impeding the participation of small investors.

## ROLE OF REGULATORY INFRASTRUCTURE

A final element of financial infrastructure is the system of regulation. How should the regulatory system be structured to be maximally effective? A first requirement is independence from the political process. Connected lending thrives when bank examiners are subject to political pressures. (See, for example, De Kirvoy, 2000.) A second requirement is that there be incentives for proactive supervision to protect the deposit insurance fund and tax receipt coffers. This often means allowing regulators to close banks that still have positive net worth. In the United States, we've taken a major step in this direction with the enactment of FDICIA. It mandates prompt corrective action for inadequately capitalized banks, which can take the form of a recapitalization requirement, development of a recovery plan, or closure. I'm pleased to say that the Federal Reserve Bank of Chicago, through its annual Bank Structure Conference, served as an incubator of this important policy initiative. (See, for example, Kaufman, 1986; Bierwag and Kaufman, 1983; McCulloch, 1987; Kane, 1990.)

A third structural requirement for regulation is that bank supervisors themselves be accountable. Supervisors and examiners must be seen to be acting vigilantly in the public interest. Fourth, supervisors must focus not only on a bank's risk position, but also on the *process* of risk management. This new theme is receiving strong support from the proposed revisions to the Basel capital standards. The proposal emphasizes and contains incentives for banks to improve their risk-management technologies.

<sup>3</sup> Neuer Markt requires either IAS or U.S. GAAP.

A final point on regulatory infrastructure is that, to the greatest extent possible, financial supervision should exploit the marketplace. Market prices can be used to enhance regulation. For example, research conducted at the Federal Reserve Bank of Chicago shows that yields on subordinated debt issued by banks can provide valuable information on bank condition. In fact, there is evidence that this information may be more informative than the current bank capital measures used to trigger supervisory action under prompt corrective action (see Evanoff and Wall, 2000, 2001). This information may be useful as a tool to supplement the data routinely collected during regular bank examinations. In addition, market discipline may actually promote stability. For example, research presented at our Bank Structure Conference (Demirguc-Kunt and Detragiache, 2002) indicates that countries with more extensive deposit insurance coverage are actually more likely to suffer banking crises.

### IS WESTERN-STYLE FINANCIAL INFRASTRUCTURE NECESSARILY APPROPRIATE FOR ALL EMERGING ECONOMIES?

I've discussed a number of reasons that decentralized provision of capital is conducive to superior economic performance and that a well-developed financial infrastructure is important for decentralized capital provision to take hold. The extensive research that underlies these conclusions is fascinating to me as a policymaker because it says that *policy matters*. It says that well-designed public policy affecting financial infrastructure can increase economic growth and standards of living.

However, we must tread lightly when we consider making policy recommendations. There may be some elements of financial infrastructure that work well in developed economies, but are not appropriate for emerging economies. Developing economies often have vast disparities of wealth. It may be unrealistic to expect that capital markets composed of small investors could provide a significant amount of capital. It may be that, at some stages of development, the natural way to mobilize capital is through large financial intermediaries. Economic historians point out that the United States had a substantial degree of bank dependence during our period of rapid industrialization in the last half of the 19th century.

More generally, financial institutions may serve rather different functions in emerging economies than they do in developed economies. Legal, accounting, and regulatory practices should reflect these differences. Let me give an example from a study published by the Chicago Federal Reserve Bank (Townsend and Yaron, 2001). The study shows how a large agricultural development bank in Thailand acts as both lender and insurer for small farmers. Specifically, if a farmer is unable to repay his loan due to circumstances beyond his control, the loan is extended and interest on the loan is deferred. While the bank has an excellent recovery record on these deferred loans, it can take up to 4 years to recover the full principal. As a result, they fully write off loans only when they are past due for more than 4 years.

In contrast, standard banking practice in the United States would typically write off a loan if it were 90 days past due. If this American practice were imposed on the Thai development bank, it might well deter the bank from serving its vital insurance role.

Attempts to impose Western-style standards on emerging or transition economies may do more harm than good if important elements of the package are left out. In Russia, for instance, an elaborately designed “Western” legal code was put in place after the fall of communism. However, the code failed to protect the rights of property owners because the country lacked a well-functioning judicial system to *enforce* the laws. (See the examples given in Walker, 2000, pp. 55–56; Perotti, 2001.) To implement structural reforms in this sort of piecemeal fashion may create a situation similar to the old joke about “British traffic reform.” The British government decides that people should drive on the right side of the road. But, to implement the reform gradually, they decide to start with only the busses.

So it may be unrealistic to regard Western style financial infrastructure as a one-size-fits-all prescription for all countries. Any application of the principles of sound financial infrastructure to emerging economies must take the specific conditions of that country into consideration. Still, there are basic principles that can guide us as policymakers. First, the legal system must clearly define and protect property rights. And these rights must be enforced by a competent, ethical, and politically independent judiciary. Second, accounting standards should be sufficiently transparent to foster market discipline and efficient pricing of financial assets. And third, regulation should be independent of the political process and should rely to the greatest extent possible on market mechanisms and market incentives.

These recommendations are very broad. Yet, they raise a number of questions that call for additional research. Perhaps most important, to what extent can policy options that are effective in developed countries be transferred to emerging economies? Do countries with stronger legal protection of property rights necessarily achieve faster economic growth? Similarly, does stronger protection for property rights reduce a country’s susceptibility to systemic risk? Do stronger disclosure requirements lead to better developed capital markets, or do stronger disclosure standards emerge endogenously as capital markets develop? To what extent can market discipline replace regulatory discipline? In particular, does market discipline actually influence firm behavior, or do market prices merely provide information that can inform regulatory decisions?

These questions are ongoing challenges that are open to further investigation and research. Continuing work by contributors to the *Journal of Financial Intermediation* that rigorously explores these areas will no doubt contribute to the advancement of our knowledge. And such knowledge has very tangible, real-world implications. Because if, as researchers, we can begin to answer some of these difficult questions, then, as policymakers, we can begin to strengthen financial infrastructures both in emerging economies and in the global system as a whole.

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