

Chicago Fed Letter

Global financial crisis and economic development

On May 23, 1999, the Department of Economics and the George J. Stigler Center for the Study of the Economy and the State of the University of Chicago and the Federal Reserve Bank of Chicago cosponsored a conference titled Global Financial Crisis and Economic Development. The conference drew prestigious representatives from academic, business, and policy circles. Nobel laureates Gary Becker and Robert Lucas participated, and international financier George Soros gave the keynote address. This *Chicago Fed Letter* summarizes the ideas presented at the conference.

Asian financial crisis: A tale of two countries

Robert M. Townsend, the Charles E. Merriam Distinguished Professor of Economics at the University of Chicago, discussed the role of Thailand in the Asian financial crisis. Since 1970, Thailand had been characterized by tremendous economic growth and high saving and investment rates. The government was fiscally responsible, producing surpluses of 6% of gross domestic product (GDP) and a negative current account balance. However, there were signs of weakness in Thailand's financial system. Most deposits and financial credit were centered in commercial banks and finance companies in urban areas such as Bangkok. Seeds of the crisis were planted with misguided investment in these institutions. Investment decisions in areas such as real estate were often based upon a non-market rationale rather than on supply and demand. Finance companies had a large fraction of their portfolio in real estate and, while official figures state that commercial lending was primarily in manufacturing,

Townsend suspects that many of these loans were also in real estate. In addition, financial institutions had substantial foreign exchange exposure and were dependent on foreign capital.

The onset of the financial crisis saw depleted reserves, a fall in real activity and imports, and high fiscal deficits. Given the poor investment decisions, where had the phenomenal GDP growth come from? Townsend discussed several models of growth, and argued that growth was fostered through capital deepening rather than total factor productivity. Capital accumulation was fostered by an initial scarcity of capital. Capital drew high rates of return, attracting investment from abroad and from within Thailand. Townsend finds that a substantial portion of credit within Thailand was provided through informal relationships. Thus, growth in Thailand was in large part self-financed. This theory is supported by evidence that unemployment was low in rural areas during the crisis. Household income from wages and remittances fell, but business income increased. Small businesses were likely supported through informal rather than institutional credit, which may explain why demand for institutional credit was low during the crisis. The success of small enterprises suggests that the Thai government should have focused on long-term improvements in the financial system rather than on unemployment, which was likely overstated.

Next, James Tsuen-Hua Shih, Central Bank of China, Taiwan (CBC), discussed why Taiwan was spared the fate of other troubled Asian tigers during the crisis. Shih believes that a combination of sound governmental policies, high-quality human resources, strong entrepreneurial spirit, and a favorable external environment allowed Taiwan

to flourish with high growth and low inflation. Taiwan is known for its stability as a net creditor country, with consistent current account surpluses. It has been able to maintain large foreign reserves (\$90.3 billion at yearend 1998) and carry virtually no external government debt. Other strong economic fundamentals, such as a high savings rate and near fiscal balance, have also contributed to Taiwan's superior record. However, even Taiwan's impressive economic fundamentals could not protect it completely from the effects of the Asian crisis. The new Taiwanese dollar (NTD) depreciated and stock index volatility increased, but Taiwan suffered little in comparison with other countries. Shih credits sound monetary policy for Taiwan's success. The CBC intervened heavily in the beginning, expecting that the strong economic fundamentals would prevent much speculation. However, after several billion dollars had been lost in the defense of the NTD, the CBC followed a managed float of the exchange rate to stem further losses. The success of the float has allowed Taiwan to continue on a path of economic growth and financial restructuring. Along with sound economic fundamentals and monetary policy, Shih also credited the resilience and flexibility of Taiwanese enterprise for weathering the financial storm. In addition, the Taiwanese people benefited from their experience with a major asset bubble during the 1980s. As a result, investors were better prepared to deal with asset volatility during the Asian crisis.

Crisis in Latin America

The conference then examined two case studies of financial crisis in Latin America. Jose Scheinkman, the Alvin H. Baum Distinguished Service Professor of Economics at the University

of Chicago, discussed the situation in Brazil, and Roque Fernandez, Minister of the Economy and Public Works and Services of Argentina, followed with perspectives from Argentina. Scheinkman began by depicting a grim picture of Brazil during the eighties. Brazil had no per capita income growth, and was the “world champion of inflation.” The economy was characterized by government intervention, with state monopolies and restriction of entry in industries, controls on prices, wages, and interest rates, and high labor taxes. High labor taxation encouraged a high degree of informality within the labor force, as workers avoided official jobs in favor of jobs within the underground economy. Such informality can be costly since these enterprises are often restricted to a smaller, inefficient scale. The closed nature of Brazil’s economy created distortions with investment. The cost of an investment good was nearly twice that of an investment good in the U.S. In this regard, Brazil proved a sharp contrast to the capital deepening that occurred in Thailand, since investors had little incentive to invest in Brazil.

However, Brazil began to improve. The *real* plan proved effective at reducing inflation. Deregulation occurred, as well as privatization in many industries. Barriers were lowered to foreign investment and trade. In seven years, productivity doubled in steel, banking, telecommunications, and automobiles. Privatization of state banks led to a healthy banking system. However, a crucial element was missing: the control of fiscal deficits. Brazil was stymied by high government expenditures, and further problems were created by the government’s inflation-fighting policies. The resulting high interest rates raised the cost of debt servicing, creating a vicious cycle. The government borrowed to follow a tight monetary policy, but then had to pay restrictive interest rates (15% to 20%) to finance the government debt. Scheinkman reflected that raising interest rates to solve what was basically a fiscal problem was misguided. The fiscal situation deteriorated and left Brazil vulnerable to financial crisis. Although Brazil suffered substantially, the crisis was

short-lived, largely owing to favorable external conditions and International Monetary Fund (IMF) recommendations and the fact that the crisis was expected. While Brazil now shows positive signs of recovery, Scheinkman believes that only expanded investment in human and physical capital combined with more openness will guarantee its future economic success.

Roque Fernandez discussed Argentina’s experience with globalization. In contrast to the relatively closed nature of Brazil’s economy, Argentina maintains a high degree of openness, with a currency board and no restrictions on international capital flows. Argentina’s future depends on balancing the rewards and perils of globalization. The rewards include high GDP growth and foreign investment. On the other hand, Argentina is subject to a large amount of volatility from foreign markets and open capital markets. Crises within the country closely follow fluctuations in capital flows and GDP. This imposes a form of discipline on policymakers. Financial markets appraise the consistency and appropriateness of government policies, rewarding successes and penalizing failures. Fernandez proposed that there were other consequences to such openness, as “innocent” countries may be susceptible to financial contagion from countries with ineffective policies. Should international scrutiny simply be accepted as a constraint on domestic policy? He argued that market perceptions are typically correct in their valuations. When markets suspect that a banking system is weak, evidence after the crisis tends to confirm the perceptions.

Fernandez expressed positive expectations given the domestic and international reforms taking place, such as Argentinian private deposit insurance and the IMF’s new contingent credit lines.

The Lucas critique

Robert E. Lucas, Jr., the John Dewey Distinguished Service Professor of Economics and Nobel laureate from the University of Chicago, shared his views on monetary policy and the

prospects for world economic growth. He began with a thorough critique of fixed exchange rate regimes. Since the dissolution of the Bretton Woods system in 1971, most countries have abandoned fixed exchange rates in favor of flexible exchange regimes. Countries typically adopt fixed exchange rate regimes either as a commitment against inflationary monetary policy or to facilitate capital flows. Lucas argues that the costs of such an exchange rate policy outweigh the benefits. His review of the data shows that the largest recessions since Bretton Woods have been due to the defense of exchange rate regimes. For example, Mexico’s defense of its exchange rate through restrictive monetary policy precipitated a costly recession in 1994, and devaluation occurred anyway. Lucas attributed the improvement in world living standards to the effectiveness of postwar institutions and central banks’ efforts to control inflation. Therefore, he argued that countries should adopt monetary policies that target inflation, rather than maintain fixed exchange rates and fiscal fine-tuning.

Lucas views capital allocation as the most important issue facing economics. In order to maximize production, resources should be directed where they are most efficient. Lucas illustrated the potential waste of resources by sketching a simple model of the inefficient allocation of capital. His rough estimates suggest a \$4 trillion waste due to lack of training and physical capital. To address this waste, Lucas advocated policy innovations that encourage efficient aggregation of labor and capital, such as immigration, and liberalized capital flows.

Soros calls for reform in the IMF

George Soros, chairman of the Soros Fund Management LLC, discussed reform of the international financial system during the keynote luncheon address. Soros believes that the current infrastructure is inherently unstable and contributes to the advent of global crises. He identified the IMF as the focal point of reform. He blamed many policy decisions of the IMF for

worsening crises; examples include underestimation of the financial contagion and misguided macroeconomic recommendations to troubled countries. He also expressed concern about the structure of the IMF. First, its very nature as an international lender limits its role in preventing crises as it must wait for requests of assistance before it can take action. Second, the IMF creates moral hazard as a result of its lending policies. The fund's structural deficiencies when taken together exacerbate crises. Soros cited the similarities between Thailand, Indonesia, and Korea, where costly devaluation, followed by IMF assistance requiring high interest rates and fiscal austerity, ended in prolonged recession. The IMF has responded to criticisms by introducing new reforms such as its contingent credit line. The new mechanism provides funds to countries experiencing financial contagion, but only to those that have met specific fiscal requirements. Soros agrees with the reforms, but argued that they must work in tandem to be effective. He also pushed for explicit enforceable standards as a condition for lending.

Models of crisis

David Marshall, senior economist from the Federal Reserve Bank of Chicago, and Raguram Rajan, the Joseph L. Gidwitz Professor of Finance from the Graduate School of Business at the University of Chicago, presented their research on the Asian crisis. Marshall examined the role of coordination failure in financial crisis. He cited foreign investors' behavior during the Asian crisis as an example of coordination failure. An investor individually may find it optimal to withdraw funds from a troubled country, but all investors would be better off if they maintained their investment in that country. He developed a model to illustrate how coordination failures can occur. Such a model is useful for understanding financial panics and developing corresponding policy responses. For example, in a fractional reserve banking system, the possibility of a coordination failure exists, as investors fearing losses withdraw their funds, resulting in a bank run. While requiring banks to

maintain 100% of deposits in reserves would offset the risk of coordination failure, such a requirement would eliminate an important role of banks. Banks convert short-term liabilities like individual deposits into long-term assets such as mortgage loans. This welfare trade-off between reduction of coordination failure and banking efficiency may warrant the provision of liquidity by an international organization, like the IMF, to avoid this trade-off. Marshall concluded that models of coordination failure offer a way of rationalizing extreme shifts in economic performance which accompany financial crisis, but are currently inadequate to provide a complete explanation.

Rajan provided an alternative framework to understand the underpinnings of the Asian crisis. He proposed that the financial infrastructure of troubled countries in Asia was to blame rather than a financial panic. These countries have very fragile banking sectors with poor governance, inadequate laws and enforcement, and weak bankruptcy provisions. Under such a system, credit must be intermediated by institutions with overlapping ownership, multimarket contacts, and specialized information and skills. Only institutions with these attributes can recover loans in such a system. Rajan argued that a fragile banking system requires a high level of short-term debt. Banks commit to investors by paying out what they collect on short-term debt. Fragility is necessary as a lever for outsiders to punish banks in the case of failure. Unfortunately, such a system requires continued high growth or monopoly returns to prevail. In addition, such a system suppresses market signals, which leads to inefficient resource allocation. Eventually, deteriorating investment creates problems of repayment. Rajan argued this occurred in the Asian crisis. Banks were being run because of solvency concerns rather than for liquidity reasons. Why does this matter? During a liquidity-based crisis, confidence-building measures would work and foreign lenders and new banks would replace insolvent domestic institutions. In addition,

short-term capital flows should be restricted since they are the root of the problem. However, under a solvency-based crisis, institutional infrastructure is inadequate to support other forms of lending. Liquidity is ineffective until banks are recapitalized since investors will withdraw their funds and leave. Recapitalization of existing institutions is required, since new and foreign banks are incapable of operating in such an environment. Under these circumstances, a ban on short-term capital could create a massive credit crunch, since long-term borrowing is prohibitively high for this kind of economy.

Lessons for the future

The conference concluded with a stimulating panel discussion on lessons for financial markets and economic development. The panel comprised: Arnold C. Harberger, professor of economics at the University of California at Los Angeles, William C. Hunter, senior vice president and director of research at the Federal Reserve Bank of Chicago, Leo Melamed, chairman and CEO of Sakura Dellsler Inc., and Michael Mussa, economic counsellor and director of research of the IMF, and was moderated by Gary S. Becker, professor of economics and sociology and Nobel laureate from the University of Chicago.

Michael H. Moskow, *President*; William C. Hunter, *Senior Vice President and Director of Research*; Douglas Evanoff, *Vice President, financial studies*; Charles Evans, *Vice President, macroeconomic policy research*; Daniel Sullivan, *Vice President, microeconomic policy research*; William Testa, *Vice President, regional programs and economics editor*; Helen O'D. Koshy, *Editor*.

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The discussion began with suggestions for reforms within the financial sector. Harberger proposed that banks reduce their exposure to currency risk and illiquidity. Banks should lend and borrow in the same currency to eliminate foreign exchange exposure and exit the mortgage business to avoid the mismatch of holding assets at 30 years and liabilities at 30 days. Hunter cautioned about rapid liberalization without regard to banking infrastructure. A simple shock can lead to something very severe if the financial infrastructure is not robust. Fortunately, governments and international organizations are beginning to concern themselves with these issues. Becker then addressed the role of these entities. Is government too involved? Melamed argued against such intervention, since governmental bodies are unable to prevent crises and often expedite their occurrence. "Rescues" by the IMF are simply redistributions, which bail out lenders at the expense of citizens. The Mexican crisis saw lenders being saved, while the country suffered a costly recession. He also disagreed with Lucas and Harberger who credited monetary policy and international institutions for favorable growth. Melamed

believes improvements in technology that allow greater information transfer and transparency, coupled with the prevalence of flexible rates, have reduced global crises. For these reasons, the international community would be better off without the IMF.

Other panelists were not so pessimistic about the role of government and the IMF. Mussa proposed that the reforms instituted since the Great Depression have eliminated the problem of solvent institutions that are illiquid and created a new problem of insolvent institutions that are liquid. While the government should remain responsible for avoiding major catastrophes, the private sector must become more involved, through measures such as subordinated debt or privatized deposit insurance, to maintain market discipline. Mussa strongly disputed claims that the IMF was a source of moral hazard during the Asian crisis. The IMF does not absorb countries' losses. It provides loans that must be repaid with interest.

Harberger maintained that the IMF is necessary to respond to crises. He noted that crises prompt herd behavior, and that a level-headed international

mechanism to provide funds is required to safeguard against this irrational behavior. The IMF also serves to reduce financial contagion; Argentina was spared a harsher fate due to IMF assistance afforded to Mexico. Hunter pointed out that if the IMF were abolished, some other organization would have to be created to take its place. Though the IMF could use some improvement, the institution provides a safety net that is necessary to achieve stability of the payments system. Melamed accepted the need for a safety net, but proposed that no funds should be extended until countries meet certain requirements. However, the feasibility of such a proposition was subject to debate. Becker then questioned the enforceability of such requirements, as the specter of financial contagion makes it difficult for the IMF to refuse to lend. Hunter concluded the panel discussion by noting that many of the solutions for preventing crises are known, but the means of achieving such reforms are problematic given the political, social, and institutional impediments already in place.

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