Comment on "The East Asian Crisis—Two Years Later," by Eisuke Sakakibara, and "Mexico—Five Years after the Crisis," by Daniel Lederman, Ana María Menéndez, Guillermo Perry, and Joseph E. Stiglitz

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From the experiences of recent crises in emerging markets, Eisuke Sakakibara (East Asia) derives tentative conclusions about reform of the international financial architecture and Daniel Lederman and his coauthors (Mexico) draw tentative conclusions about the sources of recovery and about crisis management. The authors take very different approaches: Sakakibara covers a broad range of topics in a speculative manner, while Lederman and his coauthors perform a broad quantitative study of the sources of growth in Mexico following the 1995 crisis and a thorough econometric analysis of the investment function.

I turn first to the issues Sakakibara raises about the nature of recent crises and the options emerging economies have in defending themselves against the instability of international capital markets.

Solutions to Crisis through Domestic Reform and the International Financial Architecture

In the time that has elapsed since the recent crises, a consensus has been emerging on their causes. Essentially, in every crisis country we have seen a mix of weak fundamentals (macro- and microeconomic) and liquidity issues that opened the door to self-fulfilling panics. The relative importance of these two elements depends on the country. But even for the hypothetical case in which the crisis is a pure financial panic, four points should be highlighted:

- Sakakibara claims that macroeconomic fundamentals in most of the affected countries were strong before the Asian crisis. But even if macroeconomic imbalances are not the cause of a crisis, once the economy suffers a financial collapse the public sector will probably end up paying a large share of the bill. Fiscal retrenchment and tight monetary policy are therefore in order.
- As Sakakibara notes, rapid financial liberalization is one of the main causes of the large buildup of short-term liabilities to nonresidents. But we should

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Annual World Bank Conference on Development Economics 2000

not overlook the fact that poor corporate governance and weak financial systems also bias capital inflows toward the short term. Thus corporate governance reform also helps on the macroeconomic front, by lengthening the maturity of capital inflows and increasing the share of non-debt-creating flows.

- The Mexican experience with a floating exchange rate shows that the private sector—financial and nonfinancial—is taking exchange rate risk into account, and today we no longer see the currency mismatches that we saw in the past. For example, in 2000 about 80 percent of total corporate foreign currency debt was held by highly exporting firms whose annual exports to total foreign currency debt ratio was 70 percent and who have large holdings of foreign currency assets. This supports the claim made by several economists (see Obstfeld 1998 and Burnside and others 1999) that a fixed exchange rate regime works like an implicit guarantee and thus contributes to the buildup of a large short position in foreign currency.
- Although I agree with Sakakibara that market participants do not behave rationally, his arguments for multiple equilibria do not require irrationality: all the models with multiple equilibria assume rational expectations.

For emerging markets facing the problem of self-fulfilling panics, the only solution that will allow these countries to benefit from short-term inflows, and permit them to perform a maturity transformation function similar to that performed by banks, is to have an international lender of last resort. Improving the International Monetary Fund's contingent credit line facility—which, as it stands, is proving to be inoperative—could go part way toward establishing an international lender of last resort.

Of the two other solutions proposed by Sakakibara, controls on capital flows and a do-it-yourself lender of last resort, I would argue for the second, for several reasons. First, short-term capital flows perform a very useful role as a disciplining device. Second, permitting such flows has been the first step in attracting capital that might eventually become medium-term investment. And finally, there is no evidence that capital controls work.

I completely agree with Sakakibara on the need to deepen financial markets and strengthen regional trade and financial links. But we need to remember that corporate governance must also be improved to develop long-term capital markets.

Sakakibara also proposes creating regional defensive mechanisms—regional monetary funds and exchange rate regimes. In theory, the optimal solution to the problem of a financial panic is to have a lender of last resort. The decision on whether it should be regional or global depends more on politics than on economics. But we should bear in mind that contagion has been a regional phenomenon, and that having a regional lender of last resort could exacerbate it. Several countries would be likely to approach a regional lender of last resort for funds at the same time, weakening its position.

The Brazilian, Mexican, and Asian experiments with floating exchange rate regimes are working quite well. Thus short of having well-established regional cur-

rency unions, we should concentrate on deepening financial systems and debt markets and building sufficient liquidity reserves to support these regimes.

Sources of Recovery and Crisis Management

In investigating the factors behind the recovery of the Mexican economy after the 1995 crisis, Lederman and his coauthors first document the importance of investment in explaining both the recession and the recovery. This line of analysis justifies the aim of their article, which is to understand the main determinants of investment. But the data the authors present hold other interesting patterns that are not discussed.

In particular, the data show that consumption is more important than investment in explaining the recession, but its contribution to the upturn is relatively small (see figure 2 in the article). This observation points toward significant asymmetries in the factors explaining the pattern of recession and recovery. These asymmetries might be explained by the credit crunch in Mexico after 1995, which affected different sectors of the economy in different ways.

The authors also emphasize the behavior of exports: in 1996–99 non-oil exports from Mexico grew at an average annual rate of more than 15 percent. But the authors' analysis of the main determinants of Mexican exports omits the impressive economic growth that the United States has experienced, with an average growth rate of 4 percent over the past four years.

Lederman and his coauthors do an interesting job in estimating an investment function for Mexico, focusing on the different multiplier effects of the tradable and nontradable sectors and the role of the relative price of capital. Another interesting contribution is the evidence they find for the segmentation that has taken place in Mexico between firms that can fund themselves in international markets and those that lack access to credit because of the crisis in the Mexican banking system. Thus it is surprising that the authors are unable to find evidence in support of the existence of credit constraints, though other studies have found results supporting this hypothesis (for example, Copelman 2000). In their implementation of the investment function it would have been interesting to allow for the impact of U.S. economic growth and the increase in U.S. foreign direct investment in Mexico (total U.S. investment abroad has doubled since 1994).

Another important omission that might have biased the authors' results is their failure to control for country risk and access to U.S. markets. Since these two variables are highly correlated with the real exchange rate, this omission might have led the authors to place excessive importance on the role played by the exchange rate during the recovery. In 1996–98 investment in Argentina followed a pattern similar to that observed in Mexico, but without real exchange rate depreciation, suggesting that the role of the real exchange rate might have been smaller than Lederman and his coauthors show. Supporting this conclusion are the results from the authors' impulse response functions relating to the impact of a real exchange rate shock on investment and on tradable and nontradable output. This impact looks a lot like the effect of a positive capital inflow shock. Thus the authors' results could have been

driven by the omission of capital flows rather than by an exogenous depreciation of the real exchange rate.

Finally, the authors might have considered using private rather than total investment in their analysis, given the significant changes in public investment in Mexico during the period covered. Public investment fell from an average of 8 percent of GDP in 1980–82 to 2.6 percent in 1997–99.

Interest Rate Defenses and Crisis Management

Lederman and his coauthors find that high real interest rates lead to lower investment. When they introduce a dummy variable for the crises the Mexican economy suffered in 1982 and 1995 and interact it with the interest rate, they find evidence of credibility effects for 1982 but not for 1995. Thus they conclude that in the aftermath of the 1995 crisis interest rate hikes were not helpful in reestablishing confidence and promoting recovery.

But the statistical evidence they present does not support this conclusion. Nor is it sufficient for criticizing interest rate defenses of exchange rates, for several reasons:

- The argument made in the literature (see Goldfajn and Gupta 1999) in support of interest rate hikes is that once the nominal exchange rate moves beyond a certain level, there will be a large, rapid pass-through to inflation and a deterioration of corporate and bank balance sheets. These phenomena will erase any other real exchange rate benefit. This will force the authorities to substantially raise real interest rates for a long period, in an effort to avoid an excessive depreciation and, therefore, to avoid bankruptcies and an inflationary outburst. Thus failing to find evidence that the dampening effect of interest rates on investment declines during the 1995 crisis does not prove that the Mexican authorities were not able to avoid a bigger burst of inflation and an even larger future increase in interest rates. More appropriate for proving this hypothesis is the empirical work of Goldfajn and Gupta (1999), who do find partial evidence in favor of interest rate hikes as a mechanism for limiting exchange rate depreciations or for inducing fast exchange rate reversals. A comparison of the experiences of the Asian countries and Brazil with that of Mexico points toward the benefits of containing the inflationary effects of an uncontrolled devaluation.
- There is an important measurement problem in the construction of real interest rates for Mexico, where the bursts of inflation led to important differences between ex post and ex ante interest rates due to the large differences between expected and observed inflation. Lederman and his coauthors construct real interest rates using observed past inflation. As a result, and because of the increases seen in the Mexican inflation rate in 1982 and 1995, real interest rates were negative during the crisis periods. What we see in the regression is that in 1982, because of financial repression, real interest rates were extremely negative (see figure 11 in the article) but investment fell significantly (rather than increasing). So the impact of interest rates was smaller than usual, but not due to an increase in confidence.

- Not all interest rate increases represent monetary policy shocks, as the authors assume. Thus it should be interesting to assess the impact of high interest rates on investment when controlling for some measure of country risk. That would make it possible to see the difference between simply matching an increase in country risk and increasing the spread between domestic and foreign interest rates.
- It is very important to adjust for public investment, which fell by 50 percent in 1982–83.

To conclude, the study of the determinants of investment, the role of the exchange rate, and the role of foreign interest rates is extremely important for understanding the real effects of the crisis and the process of recovery. However, the authors should have left the policy debate on interest rate defenses for future work and stayed with the main objective of their empirical work: simply to assess whether the recovery of Mexican investment after the tequila crisis can be explained with real variables.

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