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Comment J. Bradford De Long

Sebastian Edwards and Miguel Savastano make four major points:

Throughout 1993–94 most available information suggested that things in Mexico were getting badly out of hand.

Most analysts, however, completely missed the magnitude of the disequilibrium—and thus the magnitude of the crisis.

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The nominal stability of the peso during 1996–97 has been a source of alarm: will "it" happen again?

Has the Bank of Mexico's monetary policy been geared toward maintaining a degree of nominal exchange rate stability at odds with the requirements of the floating rate regime? No. The Bank of Mexico appears to have been using a feedback rule that takes account of the behavior of the nominal exchange rate. But Mexico's exchange rate behavior has been largely consistent with a (dirty, but not badly soiled) float.

As I read this paper, I became more and more impressed by the work that Edwards and Savastano put into it, and less and less impressed at our collective understanding of Mexico 1994–95—why it happened, what it was, and what the chances are that it will happen again. They have done a very good job, yet I find myself feeling like—there is a "Far Side" cartoon, of dogs in lab coats, captioned, "Dog scientists trying to discover the doorknob principle," an image that will resonate strongly with anyone who has had a dog and watched it try to open a door.

They begin their paper by trying to debunk pieces—opposed pieces—of "conventional wisdom" that have become common rhetorical moves made either in looking back at Mexico 1994–95 or in looking across the Pacific at East Asia today. The first piece of conventional wisdom is that the peso crisis occurred because the Mexican government (assisted, of course, by its lackeys in the U.S. Treasury) lied about—concealed—hid—information about the state of its economy and that when investors discovered all was not pure, they recoiled in horror. Edwards and Savastano have very little patience with this view, for which I thank them.

They also have little patience with the other—opposed—piece of conventional wisdom: that Mexican policymakers were simply doing their jobs, and doing reasonably well at their jobs, when by bad luck the roof suddenly fell in. They write: "The Mexican authorities seriously underestimated the risks embedded in their chosen course of action. It is quite a stretch to claim . . . that this error in judgment . . . does not fall squarely in the category of policy mistakes." In other words, because Mexican economic policy led to catastrophe—did not keep the roof from falling in—Mexican economic policy was catastrophically awry.

From one perspective this position is clearly correct. Catastrophe happened. Policies to avoid it were not adopted. This was a policy catastrophe. From another perspective it is unsatisfactory. The most interesting thing about the recent Mexican crisis was that the Mexican government's sins against the gods of monetarism seemed at the time—seem now—to have been relatively small. The magnitude of fundamental disequilibrium seemed at the time relatively small. Yet the punishment was swift, sure, deadly, and catastrophic: I do not know how deep Mexico's 1995–96 de-

pression would have been in the absence of IMF and (rather hastily paid back) U.S. Treasury support. I fear it would have been deep and long.

Now we do have models in which relatively small "fundamental disequilibria" can be followed by large currency collapses. But these are models of fiscal crisis (in which the government budget balance moves into massive deficit in such a way as to make everyone believe that large-scale monetization is likely) or models of policy fragility (in which a sudden fall in the currency induces a substantial shift in government policy toward accommodation and monetization). The Mexican case was neither of these: the government budget was not in substantial deficit; the fall of the peso did not lead to a substantial loosening but rather to a tightening of policy—interest rates up to 80 percent.

Before the fact very, very few saw a crisis of the magnitude that actually occurred as even possible. As Edwards and Savastano write: "Very few, if any, observers would have predicted that merely a year after abandoning the [currency] band, the peso would lose almost one-half of its value. This inability to grasp the seriousness of the Mexican situation . . . clearly illustrates the shortcomings of the models commonly used by both private sector and academic analysts to assess the adequacy of real exchange rates."

They go on to criticize our collective model building, writing: "Indeed, most of these models are strictly based on flow considerations. . . . Models that, on the other hand, pay attention to stocks in general and to the foreign demand for securities issued by emerging markets in particular are, in principle, better equipped to gauge the magnitude of the disequilibrium in circumstances where credibility vanishes."

But is this correct? What is the fundamental foreign demand for securities issued by emerging markets? It depends on risk, covariance with industrial market returns, and expected return—and expected return is largely linked to the expected future growth rates of emerging market economies.

I do not know anyone who has a clear vision of the distribution of growth possibilities for emerging market economies. I do not know how news about today—about politics and economics today—should affect my estimate of the future growth of emerging market economies, and thus my fundamental demand for emerging market securities. Nor do I know why a—relatively minor, 125 basis point—increase in medium-term real interest rates in the United States in 1994 should have had a large effect on industrial economy demand for emerging market securities.

I do know that the amount of capital crossing borders today is smaller, relative to the size of the world economy, than before 1914. We have vastly more information now than they did then. And our markets and political systems are more open and more honest—back in the old days E. H. Harriman refused to let J. P. Morgan vote by proxy the shares of his British

clients at the Illinois Central annual meeting, on the ground that even though the bylaws of the corporation admitted proxies the laws of the state of Illinois did not. That makes me think that "fundamental" demand for emerging market securities is considerably higher than the current value of such securities: that capital markets have been liberalized and we are on a trajectory toward a steady state in which cross-border investment holdings are much larger than they are today.

I also know that when you do not know much, and when news does not teach you much, your beliefs do not vary much—that conditional expected values are and remain close to the unconditional means of probability distributions. Under such circumstances large swings in the stock demand for emerging market securities seem a deep puzzle: if we know next to nothing about long-run returns, how can our demand based on expectations of long-run returns suddenly and significantly change?

And this brings me to the second part of the paper. Edwards and Savastano ask, in essence: Will "it" happen again? Is the Mexican government informally pegging its nominal exchange rate in a way that is leading to sustained real appreciation and real overvaluation, thus setting Mexico up for a repeat crisis? Some prominent and influential international macroeconomists who write columns for *Business Week* and have the initials "R. D." have worried that it is. Edwards and Savastano analyze this question by comparing the actual behavior of the Mexican peso over the past couple of years to what would have been expected had the currency been undergoing a relatively "clean" float.

Their first problem is that it is not at all clear how a currency undergoing a clean float behaves. We have good models of how it *should* behave. When we test these models, the data rejects them. We have very good *normative* models of exchange rates—but not good *positive* models of exchange rates.

So Edwards and Savastano begin by comparing the short-term variability of Mexico's exchange rate in 1996–97 to the variability of other exchange rates and find that Mexico is not out of line. They go on to worry about the sudden shifts in volatility regime apparently experienced by Mexico—using the "virtual fundamentals" methodology of Flood and Rose (although it is not clear to me whether "virtual" is used in the sense of "virtual particle," "virtual reality," or "virtual presence"). They find—in sharp contrast to Flood and Rose, who found that changes in exchange rate volatility for OECD countries appeared unconnected with changes in macroeconomic volatility—that the macroeconomics have changed: that Mexico's money demand has become more unstable in the period since the crisis.

This is very interesting: Flood and Rose, as I understand them, set up their model—and the contrast between traditional and virtual fundamentals—to make it as hard as possible for changes in the exchange rate regime to be paralleled by changes in traditional fundamentals. The point

was to demonstrate the inadequacy of monetary models of exchange rates. Yet Edwards and Savastano, using Flood and Rose's methodology, actually find standard monetary models . . . somewhat useful. They also provide interesting evidence that the Bank of Mexico has not focused on domestic conditions entirely but has kept one eye on the exchange rate in 1996–97—tightening monetary policy in response to large depreciations of the peso.

How does all this bear on their major question: is "it" likely to happen again? Unfortunately, the answer is not clear. The Bank of Mexico appears to be following a policy like that of many other countries—float the exchange rate, but pay some (but not exclusive or even primary) attention to the exchange rate in setting monetary policy. There is no reason why such a feedback rule should lead to a period of pronounced real overvaluation followed by a currency crash. But then a year before the 1994–95 collapse of the peso there seemed to be no fundamental reason for the peso to undergo a catastrophic collapse either.