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Mexico and the Peso

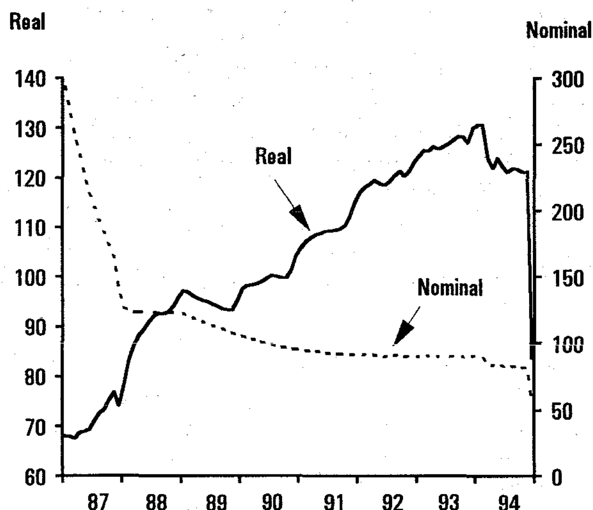
The devaluation of the Mexican peso on December 20 surprised many observers, because Mexico had been widely perceived as a model of economic stabilization and reform, particularly because of its successful disinflation strategy, which brought inflation down from a peak of 180 percent during 1987 to an average of about 8 percent in 1994. An important element of this strategy was the reversal of a huge government deficit of roughly 16 percent of GDP in 1987 to a surplus of 0.5 percent in 1992. Another element of the strategy was a social pact that achieved wage and price restraint in combination with an exchange rate target against the U.S. dollar. The exchange rate target was to provide a nominal anchor for the price level, thus preventing the spiral of devaluation and wage and price increases that previously had been associated with very high rates of inflation. By limiting the ability of monetary authorities to print money, the exchange rate target also was expected to enhance the credibility of the government's commitment to price stability, thus reducing the costs of disinflation and encouraging foreign investment. Finally, extensive privatization and trade liberalization (culminating in the adoption of NAFTA) not only imposed market discipline on price-setting, but also enhanced efficiency.

In spite of Mexico's significant accomplishments, some features in its adjustment process raised concerns. This *Weekly Letter* reviews the events leading up to the recent devaluation and government responses and highlights some policy lessons.

Why did the peso appreciate so much?

Figure 1, which plots indices of the nominal and real (CPI-adjusted) exchange rate of the peso against the U.S. dollar, with the average values in 1990 set to 100, shows that the rate of decline (depreciation) of the nominal exchange rate index slows considerably after 1987. The rate of depreciation of the peso fell from 56 percent in 1987 to an average of less than 7 percent in 1988–1993. The greater stability of the peso reflected its role as an anchor for the price level. Figure 1 also reveals that, in contrast to the gradually declining nominal exchange rate, the real exchange rate index increased sharply, from 78 in January 1988 to a peak of 131 in February 1994, an appreciation of 67 percent. The real exchange rate subsequently turned down as a result of downward pressure on the peso's value in 1994. This is discussed below.

Figure 1
Mexico Real and Nominal Exchange Rate against the U.S. Dollar (1990 = 100)



The meaning of the peso's appreciation has been debated. Until last year, one view—apparently widely held by observers in financial markets—was that the real appreciation was a natural outcome of the economic reforms adopted by Mexico, which raised expected returns and therefore

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attracted foreign capital to finance increases in investment spending and imports of capital goods. In this view, the real exchange rate in Mexico was in an equilibrium supported by the decisions of private investors.

A number of U.S. academics questioned this equilibrium view and argued instead that Mexico's real exchange rate was overvalued, the result of relying on an exchange rate target to stabilize inflation. A country with a very high inflation rate that pegs the exchange rate will experience continued real appreciation while its inflation declines to the lower inflation rate abroad. This overvaluation may lead to a short-term import boom (due to cheap imports and falling real interest rates resulting from capital inflows), but ultimately puts a heavy burden on domestic producers facing international competition. The result is a slowdown in growth and large trade imbalances.

Dornbusch and Werner (1994) provided support for the view that the peso was overvalued. They pointed to the size of Mexico's trade deficit, the fact that it reflected a boom in imports of intermediate and consumption goods rather than of capital goods (imports of capital goods are predicted if the appreciation reflects expected higher returns), and the sluggish growth in output and employment.

Mexico was particularly vulnerable to the risk that overvaluation would lead to instability in capital flows, as foreign exchange reserves were insufficient to defend Mexico's exchange rate peg. As pointed out by Calvo (1994), by 1994 the short-term liabilities of the financial sector were much larger than net international reserves, so it would be difficult to defend the peso if holders of these liabilities decided to put their funds outside of Mexico. For example, in July 1994, the volume of non-indexed or dollar-indexed treasury bills (*Cetes* and *Tesobonas,* respectively) each exceeded net international reserves, while money (narrow measure) was 6 times as large. In contrast, the ratio of narrow money to foreign exchange reserves was 0.5 in Chile and 0.9 in Colombia.

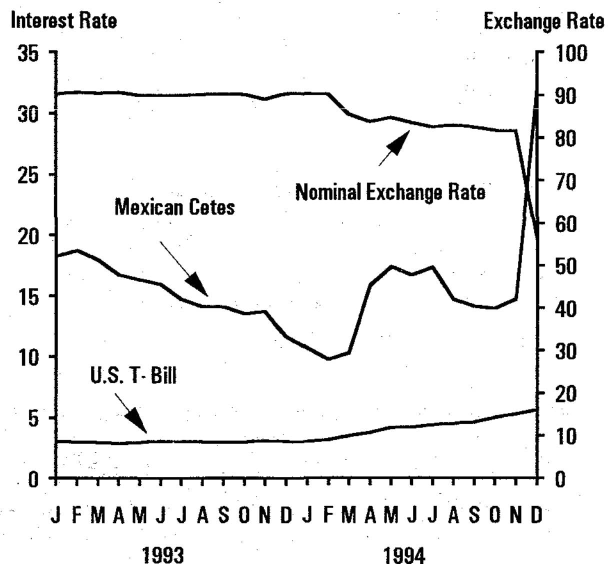
Pressures on the peso

In this environment of apparent overvaluation and vulnerability to unstable capital flows, Mexico's exchange rate came under pressure beginning in the spring of 1994, as a result of rising U.S. interest rates and domestic developments, which included two political assassinations, a presidential election, and some efforts to reverse the sluggishness of the economy.

To illustrate the pressures on the peso and their timing more clearly, Figure 2 shows the paths of the dollar/peso exchange rate index, the rate on peso treasury certificates (*Cetes*) and the U.S. T-bill rate. The positive spread between the Mexican *Cetes* and the U.S. T-bill rates reflects the expected rate of devaluation of the peso, and any risk premium attached to holding peso assets. For a given exchange rate, a narrowing spread suggests less downward pressure on the peso (assets holders are willing to hold more pesos, driving down the *Cetes* rate), while a widening spread suggests greater downward pressure on the peso (asset holders are more reluctant to hold pesos, so the *Cetes* must rise to maintain the current exchange rate).

Figure 2 suggests that there was little or no downward pressure on the peso until the spring of 1994, when the Mexican presidential candidate Colosio was assassinated. Mexican authorities responded by letting the nominal exchange rate dip and by allowing *Cetes* rates to rise. The government also reduced its reliance on *Cetes* issues to meet its short-term funding needs in favor of dollar-indexed treasury securities (*Tesobonos*),

Figure 2
Three-Month Mexican and U.S. Interest Rates and Nominal Exchange Rate



both to reassure investors and to reduce the interest cost to the government. (The *Tesobonos* paid lower rates.) As can be seen, these measures helped stabilize the peso over the summer of 1994.

Authorities also responded to pressures on the peso by intervening—at times massively—in foreign exchange markets. The intervention policy was pursued until dwindling reserves forced a devaluation and then a float last December. By the end of 1994, Mexico's foreign exchange reserves had fallen to about $6 billion, compared to $25 billion at the end of 1993.

Figure 2 suggests that in spite of evidence of possible real exchange rate overvaluation cited earlier, there was no sustained downward pressure on the peso in 1993 and 1994. Periods of apparent tranquility (before and after the Spring of 1994) were followed by episodes of sudden downward pressure on the peso. Such volatility in investor sentiment is not unprecedented. For example, the attacks on the European Exchange Rate Mechanism in 1992–1993 were not widely anticipated, and were also preceded by an extended period of tranquility in European foreign exchange markets.

One explanation for the suddenness and unpredictability of speculative attacks is that an exchange rate peg may be sustainable as long as speculators believe that the government is willing to absorb the costs (higher interest rates, slower growth) of defending the peg. However, unpredictable events, such as political disturbances, may reduce the government's credibility, and trigger a successful speculative attack (Drazen and Masson, 1993).

Policy lessons and outlook

The recent attack on the Mexican peso starkly illustrates the dilemma faced by policymakers in high-inflation economies. Relying on an exchange rate target for economic stabilization can sharply reduce inflation, but it has certain effects that may contribute to volatility in capital flows. In the case of Mexico, the momentum of past inflation led to real exchange rate appreciation and growing trade imbalances. A devaluation to correct such imbalances was difficult because the government relied on a stable exchange rate to signal its continued commitment to disinflation and to induce workers and businesses to limit wage and price increases. The limited nominal exchange rate adjustment, in a situation where foreign exchange reserves were not sufficient to defend the currency, eventually led to an attack on the peso and the abandonment of the peg. Matters were complicated further by the inherent difficulty in predicting speculative attacks and their timing.

In the long run, the peso devaluation is likely to boost Mexico's competitiveness, reduce its trade deficit down to more sustainable levels, and stimulate economic growth. In the short run, however, the peso devaluation significantly increases Mexican inflationary pressures, and puts pressure on the social pact that has provided wage and price restraint in recent years. Firms that use imported inputs and that have debt denominated in U.S. dollars may experience financial difficulties, putting pressure on Mexican banks. These contractionary influences are likely to be reinforced by government efforts to prevent a resurgence of inflation.

The peso is now floating, and Mexican authorities have stated that the float will continue for the foreseeable future. While the float has the advantage of bringing about much needed adjustment, there is some risk that investors could continue to flee the peso, and a free fall in the currency could trigger an inflationary spiral. Present Mexican policies appear designed to forestall such risks with international support. Mexican authorities have announced a plan to curb inflation, rates have risen sharply to counter downward pressure on the currency, and international assistance has been mobilized to help stabilize financial markets.

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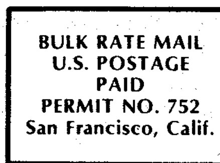

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