

ECONOMIC COMMENTARY

Federal Reserve Bank of Cleveland

A Mexican Currency Board?

by Owen F. Humpage

A lack of confidence in the peso's purchasing power was fundamental to Mexico's recent currency crisis and remains central to the nation's convalescence. In establishing a credible commitment to price stability, countries face a trade-off between 1) adopting institutional forms that limit their government's ability to generate inflation and 2) relying on an established reputation for successfully controlling the price level. Recognizing that those countries lacking such a reputation must compensate with strong institutional limits on their monetary policy discretion, many economists have suggested that Mexico replace its central bank with a currency board.¹

To be sure, Mexico made commendable improvements in its monetary policies prior to the latest peso crisis. Money growth and inflation slowed after 1992, and although Mexican inflation remained above U.S. inflation, the differential was not increasingly inconsistent with the official limitation on the peso's depreciation (see figures 1-3).² These gains, however, were atypical of Mexico's broader experience and too current to constitute a credible reputation, as last year's capital flight and subsequent devaluation illustrated. Without a well-established track record, the newly independent Bank of Mexico could not possibly garner the same credibility as the Bundesbank or the Federal Reserve System.

Currency boards, by eliminating monetary policy discretion and offering full currency convertibility, give developing countries a much stronger, more visible

arrangement for promoting confidence in their money than do central banks. By pegging the exchange rate, however, currency boards eliminate an important mechanism for hastening an economy's adjustment to economic shocks.³

■ **Establishing a Currency Board** Mexico might split the Bank of Mexico into an Issuing Department, which would act as the currency board, and a separate Banking Department, which would regulate banks and act as the lender of last resort.⁴ At the public's initiative, the Issuing Department would buy or sell U.S. dollars against pesos at a fixed exchange rate. The Mexican legislature would set the exchange rate by law. Currency boards invest their reserves in interest-bearing securities of the reserve country—in Mexico's case, U.S. securities—and remit the profits to their government. They typically hold a small excess of reserves (5 to 10 percent) to provide a buffer against any possible capital loss.

Such an arrangement would guarantee the full convertibility of the peso monetary base into dollars, but it would not underwrite the entire domestic money stock, since currency boards do not back bank deposits.⁵ To shift wealth from peso-denominated deposits into dollars, individuals would first have to acquire pesos and then exchange them for dollars at the currency board. A Mexican currency board would need approximately \$9 billion in reserves to fully underwrite a monetary base of 50 billion new pesos at current exchange rates.⁶

To restore faith in the peso's purchasing power, Mexico might consider a currency board. In contrast to a central bank, a currency board would eliminate monetary policy discretion and offer full convertibility of pesos into dollars. The arrangement would, however, prevent exchange-rate changes from aiding economic adjustments.

Unlike a central bank, the Issuing Department would never acquire domestic assets. Among other things, this precludes the Issuing Department from buying Mexican government debt obligations, from lending to state-run industries, or from making loans to local banks. This crucial prohibition erects a wall between the Issuing Department and the government's fiscal activities, and also prevents the currency board from engaging in discretionary monetary policy.

While isolating the currency board from fiscal policy influences, the prohibition on acquiring government debt appears to constrain deficit spending in currency-board countries. Under currency boards, Singapore and Hong Kong have typically operated with government budget surpluses, while other former British colonies that abandoned their currency boards have persistently maintained large budget deficits.⁷

■ Holding Domestic Debt

Critics of currency boards sometimes argue that backing 100 percent of the monetary base with foreign-reserve assets when domestic assets yield more is needlessly costly. The opportunity cost of holding foreign reserves, however, actually reflects home-country risks and is not a cost of currency boards. If capital markets are efficient, if capital is perfectly mobile, and if all assets are perfect substitutes, arbitrage will equate real returns across countries. The higher interest rates that investors require of developing countries offset the risks of currency devaluation, confiscatory taxes, and capital restrictions. A currency board, by providing a stable currency and by constraining fiscal policy, may reduce these risks, thereby encouraging domestic investment and equalizing returns. Holding higher-yielding, but riskier, domestic assets may prove self-defeating.

■ The Monetary Process

Because a Mexican currency board would provide only pesos against U.S. dollars, changes in the Mexican money stock would ultimately depend on Mexico's overall balance-of-payments position with the United States.⁸ A surplus would expand Mexico's dollar reserves and money stock; a deficit would contract them. The underlying adjustment process is reflexive, relying solely on private, market-based decisions.

Imagine that, starting from an initial state of equilibrium, Mexicans decided to invest in the United States instead of in their own country. They would exchange deposits for Mexican pesos at their banks and exchange pesos for dollars at the currency board. The supply of pesos would fall and an overall balance-of-payments deficit would emerge. Mexican interest rates might rise, partially counteracting the desire to invest in the United States and reducing the demand for pesos in line with the now-smaller supply. Mexican prices might also fall, encouraging exports. All of these adjustments follow without government intervention, but they may take time, especially if wages and prices are inflexible, and they may result in some temporary dislocations as, for example, resources shift from the pro-

duction of investment-related goods to the provision of export goods.

A central bank would face similar automatic adjustments, but unlike a currency board, it can offset—or sterilize—the contractionary monetary effect of a capital outflow through expansionary open-market operations in domestic assets. If the central bank accurately identifies the underlying problem causing investors to pull out of Mexico as transitory, sterilization might be useful for avoiding interim economic dislocations.

If, however, the underlying problem is uncertainty about government or central bank policies, sterilization could actually worsen the capital outflow. Speculators realize that when a central bank's official reserves dwindle, a devaluation follows. They move funds out of the country and thereby aggravate the situation. Consequently, while central banks may avoid adjustment to temporary balance-of-payment disequilibria, they have no advantage over currency boards when the underlying problem is persistent.

■ Sacrificing Sovereignty

To acquire credibility, a currency-board country sacrifices monetary sovereignty. Its money growth and inflation rate will approximate those of the reserve currency country. Suppose that the United States increases its money supply excessively, thereby generating inflation. Price arbitrage will transmit this inflation to Mexico. As Americans trade dollars for pesos to buy Mexican goods, the Mexican money supply will automatically increase. This process will continue until money growth in Mexico generates an inflation rate roughly equal to that in the United States, thereby eliminating the arbitrage.

Contrary to popular belief, a currency board does not completely eliminate its government's ability to influence domestic money growth. Governments in currency-board countries acquire their foreign currency assets through currency-board profits. By selling these foreign assets and converting the foreign exchange into domestic notes at the currency board, these governments

can finance fiscal policies while simultaneously increasing the domestic money supply.⁹ The ability of a government to undertake such a policy depends on its holdings of foreign currency assets (or its ability to borrow abroad). Unlike discretionary central bank actions, this policy undermines neither the currency's backing nor the currency board's credibility.

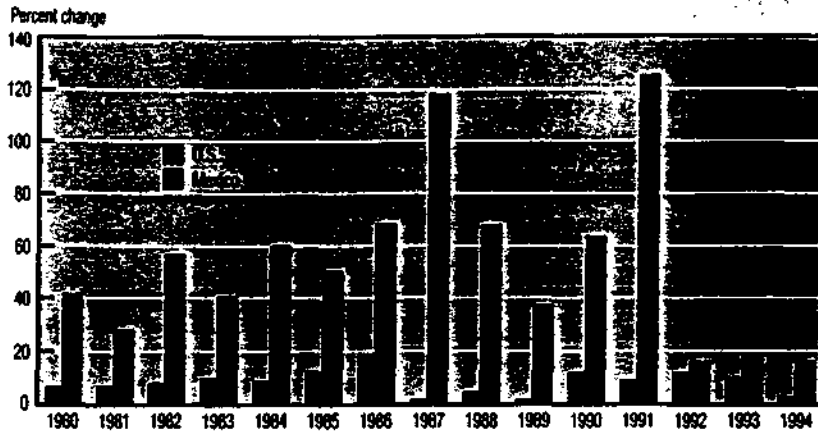
■ Fixed Exchange Rates

Confidence in a currency-board system results because it guarantees complete convertibility at an absolutely fixed exchange rate. In addition to promoting monetary credibility, a fixed exchange rate reduces the transaction costs associated with exchange-rate volatility. These can be substantial for small economies that are heavily dependent on international trade and investment. Currency boards, however, prevent exchange-rate changes from helping an economy adjust to economic shocks. Consequently, any cost-benefit analysis of currency boards must consider the trade-off between monetary policy credibility and smoother economic adjustments.

When domestic wages and prices are inflexible or when international arbitrage is slow and incomplete, flexible exchange rates can hasten a country's adjustment to idiosyncratic economic disturbances by facilitating rapid changes in its international competitiveness. As one might expect, if all countries that maintain fixed exchange rates experience similar economic disturbances, changing their ability to compete against each other offers no remedy. In this case, fixed exchange rates are indeed optimal.

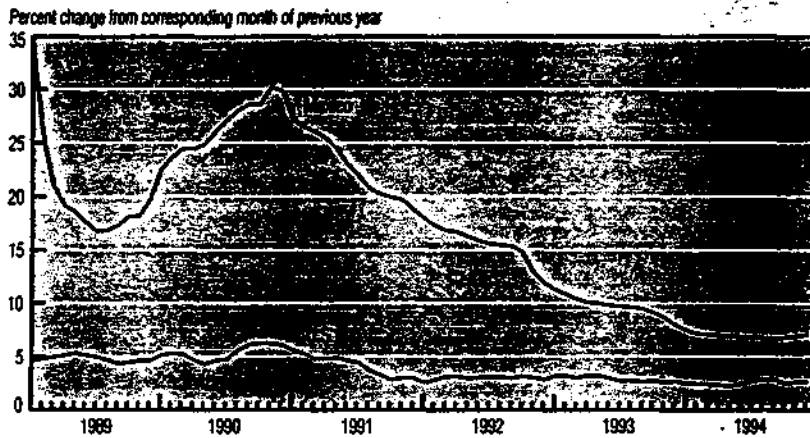
A recent study suggests that Mexico and the United States do not experience similar shocks, probably owing to substantial differences in their economic structures.¹⁰ This implies that, other things equal, a flexible peso-dollar exchange rate can benefit both nations. Such flexibility could, for example, promote a faster, less disruptive balance-of-payments adjustment between Mexico and the United States than changes in prices, incomes, and interest rates might otherwise do.

FIGURE 1 MONEY GROWTH



SOURCE: International Monetary Fund.

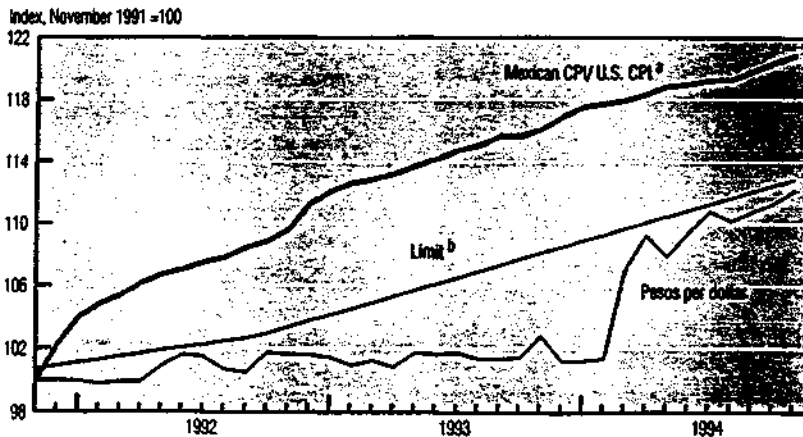
FIGURE 2 CONSUMER PRICES



NOTE: Last data point is December 1994.

SOURCE: International Monetary Fund.

FIGURE 3 PURCHASING POWER PARITY



a. Consumer Price Index.

b. Official limitation on the peso's depreciation.

NOTE: Last data point is November 1994.

SOURCES: International Monetary Fund; and author's calculations.

However, as NAFTA more closely integrates production processes across the border, economic fluctuations will probably become more closely correlated. In addition, NAFTA—and a currency board—could increase the financial integration and the mobility of labor and capital between the United States and Mexico. Then, regions experiencing rising aggregate demand would more quickly attract both labor and capital, thereby expanding output and equalizing prices without relying on exchange-rate changes. One might also expect that increased competition between Mexico and the United States will result in more flexible real wages. When wages and prices are highly flexible, international competitiveness can change quickly without flexible exchange rates.

Fixing its exchange rate to the dollar could, however, alter Mexico's competitiveness relative to other countries, like Germany and Japan. As the dollar fluctuates, so will the peso. Mitigating the severity of this problem is the high proportion of Mexico's trade with the United States. All things considered, Mexico has historically preferred a fixed to a flexible peso-dollar rate.¹¹

Conclusion

The benefit of money—its ability to reduce transaction costs—is directly tied to the stability of its purchasing power. Because governments can generate revenue from unanticipated monetary expansions, no institutional arrangements for stabilizing the value of money—neither gold standards nor independent central banks—are completely credible. Developing countries with histories of inflation and devaluation must adopt even stronger institutional restraints than developed countries if they are to achieve even moderately comparable levels of monetary credibility. For countries like Mexico, currency boards offer an approach whose costs and benefits deserve closer consideration.

■ Footnotes

1. See Steve H. Hanke, "Pegged Out," *Forbes*, January 16, 1995, p. 119; and David Hale, "How to End Mexico's Meltdown," *Wall Street Journal*, January 19, 1995.

2. That the peso had appreciated in real terms is undeniable; that it was overvalued is not so obvious. For an alternative view, see Rudiger Dornbusch and Alejandro Werner, "Mexico: Stabilization, Reform, and No Growth," *Brookings Papers on Economic Activity*, vol. 1 (1994), pp. 253-317.

3. This *Economic Commentary* draws heavily on Owen F. Humpage and Jean M. McIntire, "An Introduction to Currency Boards," Federal Reserve Bank of Cleveland, *Economic Review*, forthcoming.

4. The Bank of England, which under the Bank Charter Act of 1844 split into separate Banking and Issuing Departments, offers a model. See Kurt A. Schuler, "Currency Boards," George Mason University, Ph.D. dissertation, Spring 1992.

5. Space precludes a discussion of the lender-of-last-resort function, despite its obvious importance. As long as the Banking Department finances its lender-of-last-resort opera-

tions out of a surplus of official reserves—those exceeding the 100 percent backing—it will not undermine the credibility of the currency board.

6. The data, which pertain to year-end 1993, are from the International Monetary Fund's *International Financial Statistics*, February 1994, p. 376, line 14. The calculations assume an exchange rate of 5.5 pesos per dollar. Mexico's narrow money stock (line 34) is approximately three times its monetary base.

7. See Chwee-Huay Ow, "The Currency Board Monetary System—The Case of Singapore and Hong Kong," Johns Hopkins University, Ph.D. dissertation, 1986.

8. The overall balance is the sum of the current account and the private capital accounts.

9. See Chwee-Huay Ow (footnote 7), pp. 89-90.

10. See Tamin Bayoumi and Barry Eichengreen, "Monetary and Exchange Rate Arrangements for NAFTA," International Monetary Fund, Working Paper No. WP/93/20, March 1993.

11. See Anna J. Schwartz, "Currency Boards: Their Past, Present, and Possible Future Role," *Carnegie-Rochester Conference Series on Public Policy*, vol. 39 (December 1993), pp. 147-87.

Owen F. Humpage is an economic advisor at the Federal Reserve Bank of Cleveland. The author would like to thank Allan Melitz, Anna Schwartz, and James Thomson for helpful comments, and Jean McIntire and Lydia Leovic for research assistance.

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Federal Reserve Bank of Cleveland
Research Department
P.O. Box 6387
Cleveland, OH 44101

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