

Federal Reserve Bank of Cleveland

Dollarization and Monetary Sovereignty: The Case of Argentina

by David E. Altig and Owen F. Humpage

By almost any objective measure, Argentina surely stands as one of the outstanding economic success stories of the past decade. Throughout the 1980s, inflation plagued the Argentine economy. By the end of that decade, price-level growth reached hyperinflationary rates: In June 1989, the Consumer Price Index was 1,471 percent above the previous year's level.¹ By March 1990, the index had advanced 20,266 percent over the prior 12 months. By the end of that year, real gross domestic product per capita was 23 percent below its 1980 level, reflecting the wastefulness of prolonged and extreme inflation.

In response to these clearly unsustainable circumstances, Argentina embarked on a series of reforms in the late 1980s and early 1990s that included fiscal restraint, privatization, trade liberalization, and various structural improvements. At the heart of the reforms was the 1991 Convertibility Law (discussed below), a program designed to distance money creation from politics. The law's key feature was a currency board with a fixed, one-for-one exchange rate between the peso and the U.S. dollar.

The results have been impressive. In 1992, the annual inflation rate in Argentina was 25 percent. In 1998, the price level rose 1 percent. Over the same period, real output per capita grew at an average annual 4.6 percent rate, offsetting a significant fraction of the contraction suffered over the 1980s.

Despite the apparent success of its currency-board arrangement (and the collection of coincident reforms), financial markets have not afforded the Argentine government full credibility. Risk premia—measured by the spread between peso- and dollar-denominated assets—continue to be large and volatile. Following the onset of the Asian financial crisis in summer of 1997, and then again following the Russian ruble devaluation in August 1998, risk spreads spiked into the neighborhood of 400 basis points. Although the reaction to the depreciation of the Brazilian *real* in January of this year was muted, the spreads between short-term peso and dollar loans remain around 60 basis points.

These differences persist, even though the Argentine and U.S. inflation levels have nearly converged, and dollars completely back the peso monetary base. To further strengthen monetary credibility, many (including Argentina's President Menem) advocate dollarization—the complete replacement of the Argentine peso with the U.S. dollar.

The proposal raises several intriguing and important questions that go to the heart of monetary theory and the design of optimal currency institutions. Central to most discussions is the presumed trade-off between enhanced credibility that can be bought with dollarization and the loss of options that are inherent in monetary sovereignty. Of particular concern is the possibility that dissolution of a nation's central bank makes the country particularly susceptible to shocks that require the

In January, President Menem of Argentina proposed strengthening his country's commitment to monetary stability by replacing the peso with the U.S. dollar. Dollarization leaves Argentina without a lender of last resort, but the Federal Reserve's current operating procedure, together with existing Argentine arrangements, mitigates this drawback.

presence of a lender of last resort. This concern underlies the preference of many for dollarization only with access to the Federal Reserve's discount window.

We contend that this trade-off is overstated. Argentina's existing currency board and the Federal Reserve's operating procedure already provide mechanisms to meet the liquidity needs of Argentine financial institutions. These mechanisms considerably strengthen the case for dollarization, even without direct access to the Federal Reserve's discount window.

The arguments that follow pertain to the case for dollarization *given the existence of an operational currency board*. We assume that the trade-offs inherent in moving from a floating-exchange-rate regime to a fixed-rate system have already been accepted, and argue that dollarizing to enhance monetary credibility does not impose costs beyond those of a strictly observed currency-board arrangement.

■ The Problem with Fiat Money

The impulse for dollarization springs from the same source as the impulse for the creation of currency boards. Although governments generally understand the long-term benefits of stable money, they have strong incentives to generate inflation. Through expansions of the money supply, governments gain revenues—without the consent of the public as expressed through a legislative process. Budget problems are typically at the root of blossoming inflation.²

Seigniorage, the revenue that governments gain from printing money instead of issuing interest-bearing debt, accounted for approximately 54 percent of total Argentine government revenues between 1985 and 1990, reaching a period high of 86 percent in 1987.³ The Argentine public, not wishing to hold a depreciating monetary asset, shifted out of pesos and into U.S. dollars. To protect its revenue base, Argentina's government resisted unofficial dollarization, but often the form of the resistance—capital controls, for instance—compounded the inefficiencies associated with monetary instability.

To restore the economy's long-term growth potential, Argentina needed to re-establish confidence in the purchasing power of its money. With its reputation for price stability in shambles, the task was not an easy one. If the public once again held and used Argentine money, what would prevent the government from inflating anew? The answers came in the form of a currency board.

■ The Convertibility Law

In 1991, Argentina established a currency board that fixed a one-for-one exchange rate between pesos and the U.S. dollar.⁴ To guarantee free conversion at this rate, the Convertibility Law that established the currency board requires Argentina's central bank to back the peso monetary base fully with reserves dominated in U.S. dollars or in currencies easily converted into dollars. The central bank holds these reserves as dollar-denominated deposits or other interest-bearing instruments.

Although the new monetary institution created by the Convertibility Law is not a pure currency board, such an unadulterated arrangement is a useful benchmark from which to begin thinking about Argentina's monetary structure. The monetary base of a country with a pure, dollar-backed currency board can change in response to adjustments in U.S. monetary policy, to shifts in overall demand for dollars, or to swings in the worldwide distribution of dollars. Holding all else constant, for example, a U.S. monetary expansion would raise the U.S. price level relative to the Argentine price level and put downward pressure on the peso price of dollars. To defend its peg, the Argentine currency board would trade pesos for dollars, effectively expanding its own monetary base in concert with the change in the supply of dollars.

Though not a pure currency board, Argentina's arrangement ties its monetary policy to that of the United States. By 1995, its inflation rate approached U.S. levels. By adopting a currency board, Argentina traded monetary independence for the credibility associated with Federal Reserve policies.

■ The Currency Board: A Cross of Gold?

The costs of lost policy discretion are substantial. If this were not so, the United States and other large industrialized countries might forgo fiat money and return to a system based on gold or some other commodity. But the costs of low confidence and uncertainty about the exchange value of a currency can also be large. If this were not so, each of the European Monetary Union states would not have agreed to forgo issuing its own currency under its own independent monetary policy.

Virtually every issue raised in contemplating the fundamental trade-off presented by the adoption of a currency board—credibility and discipline versus discretion and flexibility—descends directly from the historical debates that have fashioned modern monetary institutions. In fact, a currency board ties the hands of the adopting country's policymakers in exactly the manner of a gold standard.

Perhaps the most famous—or infamous—political attack on rule-bound monetary regimes in U.S. history was William Jennings Bryan's 1896 "cross of gold" speech. Vehemently arguing for the adoption of a bimetal (gold and silver) currency standard as a way to relax the monetary stricture of the gold standard, Jennings warned that:

No private character, however pure, no personal popularity, however great, can protect from the avenging wrath of an indignant people a man who will declare that he is in favor of fastening the gold standard upon this country, or who is willing to surrender the right of self-government and place the legislative control of our affairs in the hands of foreign potentates and powers.⁵

With only minor changes in language and context, one can easily imagine modern-day opponents of dollarization uttering these sentiments.

What consequences would justify such dire warnings, such an impassioned plea? Dollarization opponents often presume that real economic activity becomes

more vulnerable to shocks in the absence of the option to expand or contract the domestic money supply. Under a currency peg, the exchange rate cannot act as a buffer against economic shocks. Necessary adjustments, which must rely on domestic price movements, often entail unemployment and lost output if those price adjustments are slow. Argentine output losses following Mexico's devaluation in 1994 reflect this problem. In addition, dollarization or a pure currency-board arrangement supposedly precludes a "lender of last resort." The government would be unable to inject liquidity rapidly enough to stave off panic during periods of financial distress. In discussing the transition to dollarization from a currency board, we ignore the adjustment problems inherent with fixed exchange rates and focus on the lender-of-last-resort problem.

■ Argentina's Almost Pure Currency Board

Argentina contemplated these problems when instituting its monetary reforms and, in contrast to a pure currency board, elected to retain some latitude for discretionary policies. The central bank may, for instance, hold up to one-third of its reserves in dollar-denominated Argentine government bonds, but it may not increase its holding of these bonds by more than 10 percent over the previous year's average (except in emergencies and then only with congressional approval). Although the government has never used this provision, transacting in Argentine government debt allows the central bank to alter the monetary base.

In 1996, Argentina also established the Contingent Repurchase Facility, which offered a temporary source of funds to illiquid banks, thus establishing a limited lender-of-last-resort capacity.⁶ The facility gives Argentina an option to sell bonds to a group of international banks under a repurchase agreement. The facility contains numerous protections for the banks, but the most important invalidates the agreement if Argentina defaults on any international debts. Argentina could also finance bank loans with the dollar reserves held in excess of the amount necessary to back peso monetary base. (Currently, Argentina's foreign-exchange

reserves equal \$24 billion, compared to a monetary base of 14.5 billion pesos.)

Ironically, the Mexican currency crisis of 1994–1995 suggests that such flexibility might enhance the credibility of the exchange-rate peg, because it offers an alternative to devaluation in the face of financial crises. Mexico's devaluation in December 1994 strained the credibility of Argentina's currency board and led to withdrawals from Argentina's banking system and international capital flight. Banks raised interest rates and restricted lending; the monetary base fell by 2.5 billion pesos. Nonperforming loans at banks, particularly provincial and state-run banks, rose sharply. Real gross domestic product per capita fell 5.3 percent.

Rather than abandoning convertibility, Argentina adopted measures designed to contain the financial crisis. The central bank lowered reserve requirements, thereby reducing the contractionary impact of the banking crisis on the money stock. On March 14, 1995, the government revealed plans to borrow up to \$7 billion, primarily from the International Monetary Fund, the World Bank, and the InterAmerican Development Bank. These funds provided a limited source of credit to facilitate a restructuring of the banking system. Bank privatization and consolidation accelerated.

■ Does Dollarization Equal Rigidity?

Although substantial, these sources are finite; a traditional central bank can theoretically create unlimited amounts of bank reserves. Nonetheless, they provide Argentina's central bank with some leeway over domestic money growth. Would dollarization then return Argentina full circle to the type of "inelastic currency" regime that eventually gave rise to today's fiat money standards and their associated risks?

If dollarization is to enhance credibility further, it certainly must inhibit Argentina from easily exercising monetary policy discretion. (Although presumably difficult, de-dollarization is not impossible.) Nevertheless, an economy operating under a fiat money standard—even one that has no direct influence over its money stock—is not directly compa-

rable to an inelastic regime—like the gold stand—in which the aggregate money stock evolves relatively slowly. In this respect, the dollarization of Argentina (or any other country) bears at least one important similarity to the dollarization of Ohio or New York or North Dakota.⁷ In all of these regions, the supply of dollars automatically adjusts to accommodate any changes in the demand for dollars. Even though Argentine financial institutions may not have direct access to the American federal funds market, they will almost surely have correspondent relationships with institutions that do have such access. Indirectly, then, shocks to the demand for dollar assets originating in Argentina would be satisfied through a fairly common chain of interbank arrangements. Moreover, under its current federal funds targeting procedure, the Federal Reserve automatically accommodates aggregate money demand shocks through its open market desk. Accommodating aggregate changes in the demand for money that emanate from developments in Argentina will not adversely affect either country's inflation rate.

As for a lender-of-last-resort function, nothing inherent in dollarization precludes the continuation of the Contingent Repurchase Facility. In fact, the facility is dollar based. Similarly, Argentina can still hold dollar reserves for emergencies under dollarization.⁸ Dollarization is therefore entirely irrelevant to the mechanisms that already exist to resolve acute stress in Argentine financial institutions.

■ There Is No Such Thing as a Free Lunch. But Is Dollarization Close?

In the end, dollarization imposes no costs on Argentine monetary policy beyond those resulting from its currency-board arrangements. The desirability of dollarization depends on whether abandoning the Argentine peso makes the abrogation of monetary discipline less likely than maintaining a system in which the peso circulates but is backed by dollars. This is not a particularly difficult question to conceptualize, but that is not the same thing as saying it is an easy question to answer.

■ Footnotes

1. All data are from the International Monetary Fund's *International Financial Statistics*.

2. See William C. Gruben "Banking Structures, Market Forces, and Economic Freedom: Lessons from Argentina and Mexico," *The Cato Journal*, vol. 18, no. 2 (Fall 1998), pp. 263-74.

3. We estimate seigniorage in Argentina as the year-to-year change in the monetary base.

4. Steve H. Hanke and Kurt Schuler's "A Dollarization Blueprint for Argentina," Cato Institute *Foreign Policy Briefing*, no. 52 (March 11, 1999) provides an excellent review of the Convertibility Law (available at: <http://www.cato.org/pubs/fpbriefs/foreignbriefs.html>).

5. The "cross of gold" reference comes from the last passage of Bryan's speech: "You shall not press down upon the brow of labor this crown of thorns, you shall not crucify mankind upon a cross of gold."

6. For a good description, see Hanke and Schuler, op. cit.

7. Although the federal government does not exert direct influence over its short-term monetary policy decisions, the Federal Reserve is ultimately accountable to the American public through the political process. Obviously, Argentines, unlike citizens of Ohio, New York, and North Dakota, do not have the access to this system.

8. In theory, the Argentine central bank could still expand and contract reserves in response to economic shocks. With a sufficient build-up of such reserves, which would require that Argentina run an overall surplus in its current and private capital accounts, the monetary authorities could exercise a sort of bounded discretion.

David E. Altig is a vice president and economist and Owen F. Humpage is an economic advisor at the Federal Reserve Bank of Cleveland.

The views stated herein are those of the authors and not necessarily those of the Federal Reserve Bank of Cleveland or of the Board of Governors of the Federal Reserve System.

Economic Commentary is published by the Research Department of the Federal Reserve Bank of Cleveland. To receive copies or to be placed on the mailing list, e-mail your request to maryanne.kostal@clev.frb.org or fax it to 216-579-3050. Economic Commentary is also available at the Cleveland Fed's site on the World Wide Web: <http://www.clev.frb.org/research>.

We invite comments, questions, and suggestions. E-mail us at editor@clev.frb.org.

Now on our Web site! See a glossary of terms used in this Economic Commentary when you visit us online.

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

Return Service Requested:

Please send corrected mailing label to the above address.

Material may be reprinted if the source is credited. Please send copies of reprinted material to the editor.

**BULK RATE
U.S. Postage Paid
Cleveland, OH
Permit No. 385**