October 15, 2002

Federal Reserve Bank of Cleveland

Dollarization: What's in It for US?

by David E. Altig

In January of this year, the Argentine currency board, which had tied Argentina's peso to the U.S. dollar since April 1991, was dismantled, ending one of the best-known and important recent examples of a nation foregoing independent monetary policy as a strategy for promoting economic welfare. A year before the currency board's demise, public discussion of Argentina's monetary arrangements had focused on moving in just the opposite direction: Eliminating peso monetary liabilities altogether, and fully dollarizing the Argentine monetary system.

That the discussion even took place in the face of severe (and thus far, unresolved) strains on the Argentine economy is testament to the powerful allure of dollarization. In fact, despite Argentina's withdrawal from the group, there are currently 17 countries that have effectively adopted another's currency for their own, and another 17 with currency board or dual monetary arrangements. (For a list of these countries, see Cohen 2001 in the recommended reading.)

That Argentina has, thus far, chosen to reverse course and abandon its currency board arrangement bears witness to the unsettled questions that surround dollarization. In fact, a definitive assessment of the costs and benefits of dollarization has proven elusive, and consequently, the debate over its pros and cons continues.

Most of this debate centers on the question of whether dollarization is desirable for the adopting country: Should Argentina (or Ecuador, El Salvador, Mexico, or wherever) forego the creation and circulation of its own independent currency and make the dollar the nation's legal tender? Much less attention, however, has been paid to the question of dollarization from the perspective of the issuing country: Is dollarization in the interest of the United States? It is with this question that this *Economic Commentary* is concerned.

Should the United States care if other countries abandon their own currencies and adopt the dollar? Dollarization imparts benefits to the United States as well as costs, and these ought to be weighed as we decide what to do about the growing number of countries turning to dollarization or considering it.

■ What's a Country to Do?

For purposes of general discussion, we can think of three potential responses a country might take when others attempt to adopt its currency. (Although I will specifically refer to "euroization" in a few paragraphs, throughout most of this article I will generically refer to the adoption of another country's currency as dollarization. It will be clear, however, that most of the issues I raise are not specific to the dollar and the United States.)

The three responses are passive acceptance, active encouragement, and active resistance. The attitudes represented by each of these responses are just as the labels imply. Passive acceptance neither encourages nor discourages currency adoption. While a country following such a policy would do nothing to make dollarization more difficult, it also would do nothing to subsidize or otherwise make dollarization more attractive to the adopting economies. Currently, passive acceptance would be the best description of U.S. policy toward dollarization.

Specific concessions to dollarizing countries, on the other hand, would be the central characteristic of active encouragement. The most straightforward example might be an explicit arrangement to share seigniorage revenues—the implicit tax associated with creating money—with the adopting country. In principle, however, concessions that could make dollarization more attractive run the gamut of central bank services, from providing settlement accounts and lender-of-last-resort facilities to foreign-based depository institutions, to allowing foreign representatives to participate directly in policy decisions.

Active resistance would, of course, be the antithesis of active encouragement, but explicit examples of what this might mean are harder to develop. Both active encouragement and passive acceptance are strategies that can be unilaterally pursued by issuing nations (by granting access to domestic institutions or by choosing benign neglect). However, without resorting to strict capital controls that effectively shut down international currency circulation, an issuing country has limited power to impose its will on another sovereign nation. Nonetheless, modern economies operate under the umbrella of a broad set of cooperative arrangements, and this interconnectedness can provide substantial leverage for a country that is truly intent on inhibiting the adoption of its currency elsewhere.

The European Central Bank (ECB) is a case in point. As ECB President Wim Duisenberg indicated in November 2001, the ECB has decided it would rather not see "euroization" at this time, at least among those countries that might one day join the monetary union:

"[Unilateral] adoption of the euro outside the [Maastricht] Treaty process would not be welcome as it would run counter to the important process of convergence prior to the adoption of the euro outlined in the Treaty."

ISSN 0428-1276

In this case, countries' desire to join the monetary union gives the ECB considerable influence on decisions regarding adoption of the euro.

It should be clear that countries have a choice to make when others find their currencies worth adopting. As the differing attitudes in the United States and the euro monetary union illustrate, conclusions regarding the best choice are not uniform or obvious. For that reason, considering dollarization's pros and cons from the vantage of the issuing country is a useful exercise.

■ Seigniorage: The Usual Suspect

The direct benefit of dollarization to the issuing economy is pretty straightforward. When another country replaces its currency with dollars (or assets denominated in dollars), it ultimately can obtain those dollar assets only by "buying" them with its own exports of goods and services. Because it costs the U.S. government essentially nothing to create dollars, this is a pure gain to the U.S. economy. In effect, the U.S. government levies a tax—called "seigniorage"—that other countries pay for the privilege of using the dollar as their own currency. As such, dollarizing (or expanding the quantity of dollars in an already dollarized economy) is a direct cost to the dollarizing country.

Alleviating these costs presents an obvious avenue by which a country might encourage broader adoption of its currency. Because the seigniorage revenues collected by the issuing country are a tax on the adopting country, we don't have to go much beyond basic principles of economics to argue that reducing the tax rate would make it more attractive to dollarize. If, for whatever reason, the ability to recover some amount of lost seigniorage is the difference between a country adopting another's currency or not, then the issuing country gains revenue for any rebate that is less than 100 percent. If revenue gains are the primary benefit of dollarization from the issuing country's point of view, then some is better than none, and everyone can seemingly win from a seigniorage-sharing agreement.

How big might these benefits be? To get some sense of the answer to this question, let's consider the case of the United States as the issuing country and Mexico and the countries of South America as the adopting countries. Based on the average annual value of changes in the monetary base in these countries between 1990 and 2000[1]—which would determine the value of seigniorage if newly created dollars were to replace the growth in domestic currencies—the revenue gain to the United States would be somewhere in the range of 0.2 percent to 0.8 percent of gross domestic product (GDP) per year.

This number is not small relative to the typical estimates of seigniorage revenues in the United States, which generally fall in the lower end of this range. Furthermore, this calculation represents an annual flow of revenues. At the time a country initially converts to another's currency, there is, in addition, a one-time windfall to the issuing country as the adopting country replaces its existing money supply with dollars (or euros, or whatever).

On the other hand, partial and (in the case of Ecuador) complete dollarization is already a fact in many of these countries, implying that the marginal gains in seigniorage are lower than the numbers above suggest. The gain is reduced yet further if broader adoption of the dollar requires revenue-sharing arrangements. All of this suggests the total benefits in seigniorage revenues would be quite small relative to the 18 to 20 percent of GDP collected in explicit tax revenues by the federal government each year.

The fact that seigniorage revenues are small does not, of course, close the issue. Even minimal gains in revenues can be justified if the costs are correspondingly small. In addition, there are certainly other, less direct, benefits and costs to consider. To these possibilities, we turn next.

■ Win–Win: Exchange Rate Risk, Trade, and Credibility

After seigniorage, the next obvious place to look for potential benefits of dollarization is suggested by the theory of optimal currency areas (an idea for which economist Robert Mundell won the 2000 Nobel Prize for Economic Science). Countries that qualify as optimal currency areas are those for whom the benefits of using a single currency equal or exceed the costs.

A little introspection should make the potential benefits clear. Suppose your favorite grocery store accepted only Japanese yen. Every trip to the grocery store would require converting your dollars into yen. This circumstance would cause no great practical difficulty: The debit or credit card machine at the counter could make all the necessary adjustments for you. In fact, if the exchange rate between the yen and the dollar were always the same, the dual-currency system would pose very little problem at all.

But what if the dollar–yen exchange rate fluctuated over time? Even if the yen prices of your grocery items were constant, the uncertain value of the dollar would turn your shopping trip into a financial adventure. On top of everything else you have to worry about, exchange risk has now been added to the equation.

The elimination of exchange rate risk is a likely explanation for evidence—see the recommended reading—that a shared currency enhances the flow of goods and services across borders. To be sure, this doesn't mean that moving to a common money will guarantee trade expansion, and it may well be that expanded trade leads to currency union, and not vice versa (as argued, for instance, in the recommended article by Alberto Trejos). But for our purposes, it's not clear that this distinction is really important. What is important is the following: If a country dollarizes to facilitate trade by reducing exchange rate risk, the benefits of reduced risk and expanded trade accrue to the U.S. economy as well.

Some may argue, however, that the most important benefits of dollarization are not about trade as much as they are about financial stability. In this view of things, the real benefit of dollarization—especially to smaller developing economies with mixed policy records—is credibility in the commitment to low and relatively stable rates of inflation (credibility that follows because the dollarizing country no longer maintains the capacity to create too much money). For countries that lack a record of monetary stability, buying this type of credibility can reduce the cost of borrowing, reduce nominal exchange rate volatility (which may, of course, stimulate trade), and reduce the likelihood of speculative attack.

If these arguments are correct, dollarizing countries would not be the only beneficiaries. As the events in Southeast Asia in 1997 and Russia and Brazil in 1998 amply demonstrated, a country does not have to be large or be a major trading partner for instability to affect global financial markets, and hence U.S. policy. If dollarization mitigates the probability of such instability, dollarization is a benefit to the United States as well.

Lose–Lose: Destabilizing Dollarization?

The benefits just described, of course, depend critically on dollarization having a stabilizing influence on the adopting country. One downside for a country that adopts another's currency—the cost side of currency unification—is the loss of an independent monetary policy. If a country foregoes issuing its own money, then it essentially inherits the monetary policy of the currency union or issuing country's central bank. At any given time, that policy may not be the one that would be chosen as optimal if the country were monetarily independent.

This may be a small price to pay if the loss of monetary independence yields benefits in the form of lower inflation and more stable financial markets. But in extreme cases, the lack of flexibility may result in economic stress that otherwise might be avoided with a more tailored monetary response. Some believe that Argentina is a case in point. The argument goes like this: By rigidly tying the peso to the dollar (and, in effect, dollarizing), the Argentine economy suffered greater exposure to adverse developments in the Brazilian economy, a large and important trading partner.

I am not wholly convinced this argument paints the full picture of Argentina's woes, or that moving away from dollarization was the best long-run response—see, for example, my *Commentary* on stable money referenced below. Nonetheless, there is a serious case to be made for the position that a lack of policy flexibility can exacerbate weaknesses that already exist in an economy. In the worst-case scenarios, being tied to an inadequate or perverse policy course has the potential of turning a slowdown into a prolonged crisis.

But the bottom line of both the win–win and lose–lose scenarios is as follows: If dollarization is beneficial to the adopting country, it is hard to see how it can fail to benefit the issuing country. If dollarization is destabilizing or harmful to the adopting country, it is hard to see how it can benefit the issuing country. Most economic arguments lead us to the conclusion that the interests of the adopter and the adoptee are aligned.

Not All Politics Are Local

There is one set of issues, however, that would appear to be of practical importance to the issuing country alone. A surge of final settlement in dollars, for example, may complicate money-supply management for the Federal Reserve. Or it is conceivable that the network of relationships between foreign financial institutions and U.S. banks would dramatically expand, increasing the exposure of the U.S. banking system to international developments and bringing new and potentially complicated issues for U.S. regulators. But these sorts of problems are not unique to questions of dollarization. They are not different from the issues that policymakers must, in any event, grapple with in an increasingly complex, interdependent world.

The *unique* set of questions that dollarization may raise is likely to comprise those that are as much political as economic. One common concern is that dollarization would heighten domestic policymakers' sense of responsibility for the performance of dollarized economies, creating a tension between domestic interests and foreign interests. Clearly, a policy of active encouragement raises issues of governance and participation in the policymaking process: Access to settlement accounts at the issuing country's central bank, coverage under lender-of-last-resort arrangements, and even a direct role for the adopting countries in the operation and implementation of policy could be on the table. (In fact, some may argue that, because the adoption of a foreign currency introduces taxation through seigniorage, active encouragement of dollarization would bring with it some *responsibility* to broaden the representation of the adopting countries in the development and implementation phases of policy.)

These issues are certain to arise with active encouragement, but it is conceivable they could develop even with passive acceptance of dollarization. If increasing dollarization does in fact change the exposure of the domestic financial system *qualitatively*, there will be a strong argument in favor of bringing the regulatory and supervisory apparatus of the issuing country to bear on the financial institutions of the adoptees. At that point, all of the questions invoked by an active encouragement policy bubble to the surface.

Perhaps these possibilities are enough to push some from advocating passive acceptance toward favoring active resistance, particularly in the form adopted by the ECB. The current leadership of the ECB clearly prefers that before countries adopt the euro, they conform to the full set of standards outlined in the Maastrict Treaty, which brought the European Monetary Union into being. The Maastricht provisions are intended to bring the legal, regulatory, and macroeconomic policy institutions of monetary union members into conformity with standards (such as low deficits) that maximize the probability that the union will be stable, credible, and contribute to general economic welfare. Unilateral "euroization" in this view is unacceptably costly, to the extent that it impedes such reforms. Active resistance, then, becomes leverage that promotes desirable long-run institutional reform among potential adoptees.

Good News and Bad News

In a world of ever-increasing economic integration (a wholly salutary development), the issue of common currency arrangements between sovereign nations will arise with increasing frequency. To date, most of the focus has been on the costs and benefits to dollarizing nations. However, if more and more adopting countries find that the benefits exceed the costs, interest in the costs and benefits to issuing countries will inevitably expand. The good news is that much of the thought and research on the purely economic costs and benefits to adopting countries appears to be readily transferable to the case of adoptee countries. The bad news is that political judgments and institutions must inevitably come into play. Economic reasoning is not mute on such topics, but it is surely a long way from sufficient to the task.

Recommended Reading

Altig, David E. 2002 (May 1). "Why Is Stable Money Such a Big Deal?" Federal Reserve Bank of Cleveland, *Economic Commentary*.

Cohen, Benjamin J. 2001. "Monetary Governance in a World of Regional Currencies." Unpublished manuscript, University of California at Santa Barbara (June).

<http://www.polsci.ucsb.edu/faculty/cohen/working/monetary govern.html>.

Duisenberg, Willem F. 2001 (November 23). "The ECB and the Accession Process," speech delivered to the Frankfurt European Banking Congress. <http://www.ecb.int/key/01/sp011123.htm>.

Gomme, Paul. 2002 (September 1). "Free Trade and Tariffs: An Uneasy Mix." Federal Reserve Bank of Cleveland, *Economic Commentary*.

The following papers relate to evidence on the relationship between trade and currency union. Some parts of these papers are more technical.

Frankel, Jeffrey, and Andrew K. Rose. Forthcoming. "An Estimate of the Effect of Common Currencies on Trade and Income." *Quarterly Journal of Economics*. <http://faculty.haas.berkeley.edu/arose/FRCU.pdf >.

Glick, Ruven, and Andrew K. Rose. Forthcoming. "Does a Currency Union Affect Trade? The Time Series Evidence." *European Economic Review*. <http://faculty.haas.berkeley.edu/arose/CUTS.pdf >.

Rose, Andrew K. 2002 (April). "The Effect of Common Currencies on International Trade: A Meta-Analysis." Unpublished manuscript, University of California at Berkeley. <http://faculty.haas.berkeley.edu/arose/meta.pdf >.

Trejos, Alberto. Forthcoming. "International Currencies and Dollarization." In *The Origin and Evolution of Central Banks*, David Altig and Bruce Smith, eds., Cambridge University Press. <http://www.clev.frb.org/CentralBankInstitute/conf2001/may/trejos.pdf>.

■ Footnote

1. This number is based on a GDP-weighted average of the monetary base changes reported in table 2 of "An Incentive-Compatible Suggestion for Seigniorage Sharing with Dollarizing Countries," by Owen F. Humpage, Federal Reserve bank of Cleveland, *Policy Discussion Paper* no. 4, June 2002.

David E. Altig is the associate director of research and a vice president and economist at the Federal Reserve Bank of Cleveland.

The views expressed here are those of the author and not necessarily those of the Federal Reserve Bank of Cleveland, the Board of Governors of the Federal Reserve System, or its staff.

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* 4d.subscriptions@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:* www.clev.frb.org/research, *where glossaries of terms are provided.*

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

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.

PRSRT STD
U.S. Postage Paid
Cleveland, OH
Permit No. 385