

## FEDERAL RESERVE

# Dollarization Explained

BY STEPHEN SLIVINSKI

In some developing countries, monetary stability might best be achieved by officially adopting a stable foreign currency.

To understand the power of currency to decide the fate of nations — developing nations, in particular — Manuel Hinds, the former finance minister of El Salvador, says it helps to know the fable of Dema Gogo.

Gogo is the president of a fictional, poor developing nation. Shortly after he assumes office, he has a conversation with the devil, who passes along an idea he got from a recently deceased macroeconomist: Create your own currency, make it the legal tender, and force citizens to relinquish their dollars in exchange for the new currency. This appeals to Gogo since it would allow the government to create as much money as it wants and still receive interest from placing the newly acquired dollars in a

U.S. savings account. It's called seigniorage, says the devil. A perfect solution, it seems, for a new ruler who wants to finance all the public works projects he was sure would secure his continued incumbency. He even gives the currency the name "gogo."

But as is always the case with Faustian bargains, there are unexpected consequences.

Oversupply of the currency creates inflation. That's a nice thing for exporters who can sell to overseas consumers in exchange for more-valuable dollars but bad for laborers who have begun to protest the increased prices of imports.

So the devil suggests devaluing the currency by raising the official exchange rate of the dollar from one to two gogos. That protects the

government's reserve of dollars from falling lower due to increased demand by citizens for the sounder currency. But it also scares international investors afraid of another devaluation and suddenly the country faces higher interest rates in international capital markets.

The vicious spiral continues. More political pressure from labor unions spurs the president to order the printing of more gogos to pay wages. Then his advisors tell him that he has lost all credibility with foreign creditors and many voters. Soon, the president finds himself running from an angry mob of citizens and during the pursuit falls off a cliff to his death.

This fable provides insight to the very real havoc created by political control over monetary policy in the developing world, particularly in Latin America. As a response to those economically dangerous impulses, some economists have suggested that a way for these economies to break out of the trap is to hitch their currency to the U.S. dollar — an action known as "dollarization." Yet there are a variety of ways of achieving this, and the distinctions between them could have important consequences for economic growth.

## The How and Why of Dollarization

The term "dollarization" describes a shift away from a country's domestic currencies toward a foreign currency — typically the U.S. dollar, but not always — as a store of value, unit of account, and medium of exchange. Official dollarization occurs when a country explicitly makes a foreign currency the preferred legal tender.

There are a few countries that have taken this direct route. The two biggest economies in this category are El Salvador and Ecuador. The former



*Argentina instituted a "currency board" system in 1991, but never adopted a policy of full dollarization. Argentine pesos like those pictured are still in circulation today.*

has been dollarized since 2001, the latter since 2000. Panama dollarized in 1904. There are four other smaller countries that have fully dollarized: the Marshall Islands, Micronesia, Palau, and the British Virgin Islands. Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, and the U.S. Virgin Islands are dollarized, too, as a result of being U.S. territories.

But the shift toward a foreign currency can occur in countries in which it is not considered legal tender. In fact, this form of “unofficial” dollarization in which citizens prefer other currencies in domestic transactions or as a means to safeguard the value of their bank savings is more common than the official form.

While data on the scope of unofficial dollarization worldwide are hard to come by, the most recent figures from economist Edgar Feige of the University of Wisconsin-Madison are illustrative. The countries with the highest degree of unofficial dollarization — the amount of foreign currency in circulation in each country as fraction of the effective money supply — were Bolivia, Nicaragua, Uruguay, Croatia, and Russia (see table on page 4).

The holders of foreign currency in these economies are investing in a hedge against the (often very high) inflation of their domestic currency. So the main benefit of official dollarization — especially when coupled with an elimination of the central bank functions of the government — would come from the monetary stability that follows from the divorce of politics and monetary policy. The transaction costs from shifting to such an arrangement could also be low in the countries listed here since so many citizens already use the sounder currency.

There are other ways of dollarizing an economy. Instead of eliminating the central bank function, a government can replace it with a “currency board.” This board would be responsible only for maintaining a specific exchange rate between the domestic currency and the foreign currency of choice. Another solution would be to keep the country’s central bank in its old form and task it with the exchange rate stability role. These forms of “soft” dollarization, however, could tempt policymakers to use the monetary tools that are still available to them and weaken the currency again. (As we’ll see later, that’s the problem that afflicted Argentina.)

The textbook version of any of these forms of dollarization would lead to a more hospitable environment for economic growth. In a predollarized scenario, the risk premiums — and, therefore, interest rates — charged by overseas lenders would be high. In a dollarized scenario, lower real interest rates for those borrowing from international capital markets follow when the risk premiums fall.

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Dollarization also reverses the isolation that results from having an unstable currency: The newly dollarized economy will soon find itself more integrated with international capital markets. And the ability of businesses to make long-term plans becomes more viable with the stability of the newfound currency.

There are trade benefits, too, which are especially important to developing countries for which exports compose a large share of

the economy. Dollarization reduces the transaction cost of exchanging one currency for another. This may not seem like a big problem, but it certainly can have real effects. Take trade between Canada and the United States, for instance. Various studies have concluded that Canadian provinces tend to trade more with each other than with states in the United States to which they are closer geographically. Even with lower trade barriers between the two countries since NAFTA, it appears that the transaction cost of trading out currencies has been a contributor to lower trade volume than one would otherwise expect.

But there is another side of this coin, so to speak. From the perspective of policymakers, there are indeed downsides to getting rid of the government’s control over monetary policy. It eliminates the ability of a central bank to serve as a lender of last resort and pursue other actions that can provide stability to the macroeconomy in the face of aggregate supply or demand shocks. The government would also lose the revenue generated by seigniorage.

Others have argued that the incentives of the anchor country could be altered by widespread dollarization of developing economies. Because the anchor country presumably already has a central bank with the ability to adjust to economic shocks, the policymakers there might have to consider how their actions will affect the smaller countries that rely on their monetary stability. This won’t be a problem if the anchor country is likely to experience the same sorts of simultaneous shocks as the dollarized country. But if the dollarized countries are subject to idiosyncratic shocks that are foreign to the anchor country, there may be international pressure on the latter to take a policy stance that benefits the former.

Dollarization could also deal a blow to “national pride” in a country that adopts it. Few politicians are likely to want to admit that their country’s currency is troubled. Indeed, such a concern among policymakers in the developing world is often pointed to by economists like Nobel laureate Robert Mundell as a reason for why more countries don’t dollarize.

Perhaps most fundamentally, dollarization will achieve its desired goal only if the anchor country pursues wise monetary policies that result in price stability. For instance, that has generally been the case in the United States for more

than two decades, but there have also been missteps along the way, such as in the 1970s, when inflation reached double digits. Under such circumstances, it's unclear that dollarization is preferable to maintaining an independent currency and central bank.

Still, from the perspective of most of the citizens who hold the currency, only the last of these concerns is likely to be seen as an actual downside. And there have been solutions proposed to overcome some of these shortcomings perceived by policymakers. Take the loss of seigniorage, for example. The anchor countries could easily share the seigniorage revenue with the countries that adopt its currency. Such a revenue-sharing arrangement existed between the British government and some of its colonies before the 1950s. There also exists a seigniorage-sharing agreement between the European Central Bank and the countries that have adopted the euro.

Still, the opposition among policymakers in developing countries to dollarization is probably the most robust barrier to such policy changes. Exploring the successful experiments with dollarization in Latin America can help us understand the circumstances under which a developing country might adopt such a policy.

### Successful Dollarization in the Real World

To see how a small country can function as a dollarized economy, you don't have to look any farther south than Panama, which adopted the U.S. dollar as the official domestic note in 1904. (Panama does circulate a domestic coin — the “balboa” — but it is fully convertible at a rate of one coin for one U.S. dollar.)

The dollarization of Panama did not occur in a political vacuum. The U.S. government had a specific interest in building a canal there as the 20th century dawned and was encouraging the Panamanian government to declare independence from Colombia. When it did so in 1904 and new independent governmental institutions were established, no central bank was created and the U.S. dollar became the de facto official currency.

The absence of a central bank, however, does not mean there are no options for the private banking system looking for a lender of last resort in an economic tumult. Panamanian banks have established lines of credit with foreign banks that have branches in Panama and can draw on those in a liquidity crunch. In fact, Panama is very well-inte-

### Unofficial Dollarization Index: Reported Ratios of Dollar Holdings in Foreign Economies (2003-2004)

Country	
Argentina	68.8
Armenia	45.3
Belarus	58.9
Bolivia	83.5
Bulgaria	55.6
Costa Rica	47.5
Croatia	72.7
Czech	25.9
Estonia	17.4
Hungary	20.6
Kyrgyzstan	41.4
Latvia	48.7
Lithuania	31.5
Mexico	25.8
Nicaragua	76.4
Peru	57.5
Poland	18.0
Romania	36.1
Russia	72.6
Turkey	46.7
Ukraine	44.9
Uruguay	74.1
Venezuela	18.0

SOURCE: Edgar L. Fiege, University of Wisconsin-Madison

grated with international financial markets, particularly after banking laws were liberalized in 1970.

Juan Luis Moreno-Villalaz explained it this way in a 1999 article, authored when he was an advisor to the Ministry of Economy and Finance in Panama: “Panama’s monetary system operates as if it were a competitive macroeconomy, since monetary equilibrium is the result of private-sector decisions without government intervention or distortions.”

Not all dollarization experiments have begun as peacefully as Panama’s. An example of a more recently dollarized economy is Ecuador, which adopted the U.S. dollar as the official currency in 2000.

Ecuador’s economic growth was stagnating in the 1990s because of a heavy government presence in the economy. Policymakers attempted and failed to open the country to international trade and capital markets. Meanwhile, political unrest began to build as the large concentration of business involved in oil exporting took a hit when oil prices fell, taking sections of the economy down with it. A collapse of the banking system followed in the late 1990s around the time that the atmospheric phenomenon El Niño had a devastating impact on production and infrastructure. Runaway inflation, the result of an overly permissive and politicized central bank prior to the crisis, was also a factor.

So, dollarization was adopted as part of the solution, along with the privatiza-

tion of some state-owned enterprises, and liberalization in labor markets. But it was done in the midst of a political crisis that accompanied the economic downturn. Ecuador had gone through four presidents between 1996 and 1998. When the sitting president, Jamil Mahuad, announced the dollarization policy in January 2000, he was deposed days later. His successor, Vice President Gustavo Noboa, stuck to the policy and by 2003, his last year in office, the inflation rate was 7.9 percent — down from close to 100 percent in 2000 — making it the first year since 1972 to see a single-digit inflation rate.

### The Perils of Soft Dollarization

The Ecuador example shows how dollarization can follow massive economic dislocation and political unrest. Yet it also hints at how the form that dollarization takes can affect the outcome. The Ecuadorian government opted for a soft form of dollarization — it retained the central bank and allowed

it to function as a lender of last resort. Today, some observers suggest that the future of dollarization remains uncertain in the face of recent stresses to that country's banking system.

A country that most vividly illustrates the perils of soft dollarization is Argentina. President Carlos Menem came to office in 1989 during a period of economic stagnation. The next year, the inflation rate topped 20,000 percent. Dollarization of the economy began in 1991 and was relatively painless since most citizens preferred dollars anyway, and had large holdings of them. (Dollar notes were estimated to exceed domestic currency notes and bank deposits combined.)

The form that dollarization took here was soft too. The mechanism used was widely called a "currency board." It was tasked with overseeing the convertibility of the currency and offered anyone who wanted to trade in their pesos for dollars a 1-to-1 exchange rate. It was a credible commitment because the board was required to hold dollars in reserve as means to make good on the exchange and was presumably bound by the expectation that they would not embark on a discretionary monetary policy.

This arrangement was in some ways a concession to the sovereignty concern. At the time, pesos were still in circulation and considered legal tender, but the convertibility of them to dollars made the U.S. currency the de facto medium of exchange. Yet it was indeed successful in reducing inflation to single digits by 1993.

But the currency board deviated from the textbook definition. There were some loopholes in the reserve requirements. The Argentina currency board was able to hold a certain percentage of government-issued bonds instead of foreign currency. And the government was quite eager to run up debt in the years after the currency board was created.

International investment in the region slowed after international shocks, like the East Asian and Russian currency crises, and local ones, like the devaluation of the Brazilian currency. A recession resulted, but that alone wasn't enough to threaten the currency board structure. Instead, Argentina's government had trouble paying interest on the

international and internal debt it had racked up over the preceding decades. In addition, skepticism of the government's commitment to convertibility spooked the markets and began a "silent run" on bank deposits.

By this time, the government was led by officials who were known to be less fond of the currency board structure. By the middle of 2001, the government was well on its way to devaluing the peso by violating the convertibility rule. They also announced a separate set of exchange rates for various export transactions. Thus, the currency board ceased to be a rules-based institution that bound the hands of policymakers.

Advocates of hard dollarization argue that Argentina would be in better shape if the discretionary power of the currency board was taken away completely. They arguably have a point: When the Argentine peso faced inflationary pressure from speculators in 1995, the government was able to reduce that pressure by threatening to shift to hard dollarization and to get rid of the peso altogether. By threatening a less discretionary policy, they were able to protect their currency.

Over time the allure of monetary sovereignty and political pressure prevailed. Economist Kurt Schuler, currently with the U.S. Treasury Department, has tallied up the costs to these sorts of political preferences and discovered that they are steep. Between 1971 and 2000, developing countries without central banks had about as much inflation as developed countries with central banks. Presumably the latter learned very important lessons from the period of high inflation in the 1970s. But developing countries with central banks have far less success: Average annual inflation was about 10 times higher in those countries.

Sometimes truth and fiction look disturbingly similar. The story of Dema Gogo provides us with insight on monetary experiments in the developing world. Unfortunately, for many of those countries the fable continues to be closer to reality than myth.

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## READINGS

Bogetic, Željko. "Official Dollarization: Current Experiences and Issues." *Cato Journal*, Fall 2000, vol. 20, no. 2, pp. 179-223.

Feige, Edgar L., and James W. Dean. "Dollarization and Euroization in Transition Countries: Currency Substitution, Asset Substitution, Network Externalities, and Irreversibility," in *Monetary Unions and Hard Pegs*, eds. Volbert Alexander, Jacques Méltz, and George M. von Furstenberg. New York: Oxford University Press: 2004, pp. 303-321.

Hinds, Manuel. *Playing Monopoly with the Devil: Dollarization and Domestic Currencies in Developing Countries*. New Haven, CT: Yale University Press, 2006.

Salvatore, Dominick, James W. Dean, and Thomas D. Willett, eds. *The Dollarization Debate*. New York: Oxford University Press, 2003.