

# Why Is Stable Money Such a Big Deal?

by David E. Altig

On Wednesday, July 10, 1940, Adolf Hitler's Luftwaffe attacked British air bases along the coasts of Scotland and eastern and southeastern England. Four months later, the Battle of Britain was over, bringing an end to German hopes of direct military conquest of the British Isles.

But the end of the air raids would not end the attack on the United Kingdom. Shortly after their defeat in the Battle of Britain, the Germans began to produce a new weapon that, while less obviously violent than Luftwaffe bombs, was recognized as no less virulent. That weapon was counterfeit British pounds.

Operation Bernhard, as the counterfeiting enterprise would be known, was named for Bernhard Kruger, the SS officer who oversaw the production of the bogus notes by slave labor in the Sachsenhausen concentration camp near Berlin. By contemporary accounts, the plan resulted in the manufacture of about £150,000,000 in counterfeit notes of various denominations—in the neighborhood of \$7 billion by today's standards. Kruger's operation enlisted the support of known counterfeiters as well as professionals and skilled tradesmen among the camp's population. It incorporated production techniques that ran the gamut from detailed material analyses to the manual labor of prisoners who "seasoned" the bogus bills by passing them from one another, folding and soiling them to give them a realistic worn appearance.

The objective was simple, devious, and pernicious: To undermine public confidence in the pound and, by so doing, irreparably damage the British economy. In the end, the plot did not succeed in destroying confidence in Britain's cur-

rency, and eventually, the counterfeiting program shifted toward financing various clandestine Nazi activities outside the United Kingdom. Ironically, this shift in the operation's focus was made possible precisely because the initial goal of undermining the pound's value was not realized.

Operation Bernhard is a particularly interesting example of the use of counterfeiting as warfare, but it is by no means unique or unprecedented. One of the earliest known instances of counterfeiting as a weapon occurred during the city-state conflicts of Renaissance Italy (the historical period that would inspire Machiavelli's *The Prince*). The instigator in this case was one Galeazzo Sforza, a Milanese duke, who in 1470 (when Machiavelli was an infant) attempted to undermine the economic well-being of his enemies in the rival city-state of Venice by adding counterfeiting Venetian currency to the corpus of general treachery that he regularly practiced. (History records the duke as a particularly odious character, whose cruelty led to a successful assassination plot by Milanese elites in 1476.)

There are many, many more examples—some of them listed in table 1—extending through to modern terrorist aggressions. The ubiquitous impulse to undermine the value of, and confidence in, the currency of one's enemies is testament to the indispensable role of a stable and reliable monetary standard in modern economies. In fact, so broad and deep is the potential damage of a successful counterfeiting campaign, some reports indicate that professional German military officers initially opposed Operation Bernhard partly on the grounds that it constituted an unacceptable attack on civilian populations.

**What do attempts to counterfeit an enemy's currency during wartime have in common with decisions to adopt another country's currency during peacetime? Both are inspired by the power of a stable monetary standard and, conversely, the consequences of losing it. Both illustrate why preserving the value of the nation's currency is a central bank's most important responsibility. This Commentary is based on a speech given (jointly with Mike Bryan) to the Cleveland City Club New Leaders group on February 19, 2002.**

## Buying Credibility

Counterfeiting as weaponry is a powerful illustration of the value of stable money, but it may not be the most uplifting example. More hopeful lessons may be found, not in the attempts of those who would steal monetary credibility, but in the aspirations and efforts of those nations who seek it.

Until recently, Argentina was held out as one such example. The protracted downturn of the Argentine economy and recent dissolution of its currency board have contributed to a chorus of commentary that is critical of both the objectives and methods for economic revival adopted by the Argentine government in the early 1990s.

But the country's recent travails obscure the remarkable early successes of the monetary reforms implemented at the onset of the last decade. Between March 1989 and March 1990, the rate of inflation in Argentina exceeded 20,000 percent. The government responded by promising to fix the value of the peso such that it would trade one-for-one

with the dollar. This was much more than a simple commitment to target the exchange rate. By adopting the currency board, the government promised to back circulating pesos with dollar-denominated assets, providing a constraint on money creation and the inflation that follows from too much of it.

The cost that establishing a currency-board-like institution entails bears emphasizing. To back pesos with dollar-denominated assets, the government has to acquire them first. There is really only one way any country can accumulate the currency of another country, and that is to give up real goods and services in exchange. Normally, a country that exports more than it imports today will do so only if it anticipates being compensated with imported goods and services sometime later. But not so with the creation of a currency board, for the receipt of the dollar assets today is not intended to finance the purchase of future goods and services. The assets instead remain in reserve to fund the currency board, and the exports traded for dollars today are simply the price of buying credibility.

For years Argentina's purchase of credibility appeared to be a wise one. The country's inflation rate plunged almost immediately, and by 1998 inflation was a mere 1 percent. Furthermore, after stagnating for decades, the economy expanded at a pace of over 4<sup>1</sup>/<sub>2</sub> percent per year.

### ■ Necessary, but Not Sufficient

Even at the height of success, however, there were indications that the currency board was not an absolute panacea. The perception that the peso remained a relatively risky bet was hard to shake, and investors in peso-denominated securities demanded higher interest rates as compensation for bearing this risk. What's more, the magnitude of the risk premia tended to be quite volatile, suggesting that the economy remained susceptible to speculative attack.

In January 1999, then-President Carlos Menem proposed complete dollarization, in effect eliminating the peso entirely. Although dollarization would have had little technical advantage over the existing currency board arrangement, many proponents of dollarization argued that markets had retained some residual doubt about the long-run viability of the board, doubts that only

complete elimination of a circulating peso would vanquish.

But the drive for dollarization was not to be, and the fears that the currency board would prove unstable were all too prophetic. As of February 11, the peso was wholly untethered from the dollar, and the last vestiges of the currency board, in the process of being dismantled since late last year, were finally reduced to rubble.

The advocates of dollarization may have seen it coming. Argentina had begun the recession from which it has yet to recover in mid-1998, as fears mounted that the faltering Brazilian economy would place irreparable strains on the Argentine economy. The problems of the country, however, appear to be more fundamental than the details of its monetary arrangements. Writing in the January 9 edition of the *Wall Street Journal*, the Cato Institute's Brink Lindsey quoted a survey conducted by Harvard University and the World Economic Forum's 2000 Global Competitiveness Report showing that, of 59 countries studied, Argentina ranks "40th in frequency of irregular payments to government officials; 54th in the independence of the judiciary; 55th litigation costs; 45th for corruption of the legal system; and 54th in the reliability of police protection." (The questions of the survey were asked such that high numbers are bad.)

These statistics reveal an overwhelming fault in Argentina's political infrastructure. It is not surprising that truly independent central banking could not be sustained in such an environment. As if to underscore the point, the disintegration of the currency board took shape in May 2001 when Fernando de la Rúa dismissed Pedro Pou, the central bank governor, for resisting attempts to weaken the country's promise of peso parity with the dollar.

In the case of Argentina, the reforms that gave rise to the currency board were not sufficient in the absence of broader institutional reform. But that fact should not mislead us into the false belief that long-term prosperity can be achieved in Argentina (or any country) without a strong, stable, and credible monetary standard. A currency board, dollarization, or the like may not be a sufficient condition for prosperity, but it is certainly a necessary one.

### ■ A Sacred Trust

The story of Operation Bernhard—but one example among many instances of counterfeiting in times of war—gives us an idea of the perceived damage that can be inflicted on an economy by undermining confidence in the country's ability to maintain a stable purchasing power of money. So crucial is this confidence that counterfeiting attacks appear to be nearly as common a weapon in warfare as bombs and bullets.

The example of Argentina underscores the large gains that price stabilization can bring. But it also illustrates how difficult it can be to obtain credibility when it is absent, and how tenuous its footing can be once attained.

Central bankers often emphasize that their core long-run responsibility is protecting the purchasing power of money, and that maintaining price stability is the primary way that monetary policy can contribute to sustainable long-run growth. It can be difficult, perhaps, to appreciate the power of these sentiments in an environment where the value of money does not appear to be seriously at risk. But to consider the alternative—to consider the motivations of nations that would steal that value from their enemies and the distress of those nations that lose it—is to understand why protecting the credibility of an economy's monetary standard is *the* mission of a central bank.

### ■ Changing to Stay in Place

The issue is not one of trading the gains of price stability against other objectives of monetary policy. The key point is that none of those other objectives can possibly be met if the public isn't convinced that the central bank will fulfill its responsibility to protect the purchasing power of money.

Unfortunately, the perception that monetary policy objectives conflict with one another is held by too many too often. In particular, people believe that containing inflationary pressures requires a central bank to restrain economic growth. This perception is reinforced, I think, by a general misunderstanding of federal funds rate decisions, the monetary policy actions that are most visible to the public. Specifically, people are confused about the distinction between changes in the federal funds rate that are designed to engineer changes in the real economy versus changes that are reactions to

**TABLE 1 EXAMPLES OF COUNTERFEITING IN WARFARE**

Conflict	Entity engaged in counterfeiting	Currency counterfeited
Italian city-state conflicts (1423–1508)	Milan	Venetian ducat
American Revolution (1775–83)	Britain	Colonial currencies
Napoleonic Wars (1805–12)	France	Austrian Banco script notes Russian rubles
Mexican–American War (1846–48)	Mexico	Republic of Texas dollars
U.S. Civil War (1861–65)	United States	Confederate States of America dollars
World War I (1914–18)	Britain	Turkish lira
Bolshevik Revolution (1917–21)	White Army	Russian rubles
World War II (1939–45)	Britain	Burmese rupees
		Chinese yuan
		German reichsmarks
		Malaysian dollars
		Germany
	Germany	British pounds
		French francs
		Hungarian pengos
		U.S. dollars
		Yugoslav dinars
Japan	Chinese yuan	
United States	Burmese rupees	
	German reichsmarks	
	Japanese yen	
Bay of Pigs Invasion (1961)	United States	Cuban pesos
Vietnam War (1964–73)	United States	North Vietnamese dong
Terrorist activities (1990–96)	Unknown	U.S. dollars

Sources: *Counterfeit Notes of War*, <[http://currency\\_den.tripod.com/War\\_Counterfeits/war.html](http://currency_den.tripod.com/War_Counterfeits/war.html)>, accessed April 8, 2002; “Counterfeit U.S. Currency Abroad: Observations on Counterfeiting and U.S. Deterrence Efforts.” 1996. Testimony of JayEtta Z. Hecker to the House Subcommittee on General Oversight and Investigations, Committee on Banking and Financial Services, GAO/T-GGD-96-82, U.S. General Accounting Office.

changes in the real economy. Chairman Greenspan made these distinctions clear during his March 7 testimony before the Senate Committee on Banking, Housing, and Urban Affairs.

*“We did raise interest rates in 1999, and the reason we did is, real, long-term rates were beginning to rise because the economy was beginning to accelerate. Had we not raised the federal funds rate during that particular period, we could have held it in check only by expanding the money supply at an inordinately rapid rate...”*

To put the idea in a slightly different way, in some circumstances changes in the federal funds rate are nothing more than the adjustments required to strike a neutral stance in monetary policy. This is the theme of the Chairman’s comments above, a theme explored at length in the economic essay of this year’s Federal Reserve Bank of Cleveland *Annual Report*. It is a motivation for central bank interest rate policy that needs to be better understood.

### ■ You Don’t Know What You’ve Got ‘til It’s Gone

The day will come when the Federal Open Market Committee will again see fit to raise the federal funds rate. The magnitude, timing, and precise rationale of these changes are, of course, uncertain. But the basic issues are not. Nations attack their enemies by attempting to undermine confidence in their adversaries’ currency. Governments pay tangible costs in goods and services to attach themselves to credible foreign monetary standards, and pay yet more when those arrangements prove insufficient to instill confidence in the country’s currency. All of this is everywhere and always about the purchasing power of money, and the role that sustaining it plays in promoting economic prosperity.

The public is sometimes confounded by the willingness of central banks to act in times when the threat of inflationary pressures does not appear imminent. Some of this reflects an underappreciation of the fundamentally defensive

nature of many changes in policy rates, such as the federal funds rate. Many times, changes in these rates are mere reactions to the evolving pressures on interest rates more generally, designed to maintain the existing thrust of policy rather than to “tighten” or “ease.”

But even in those cases where a more activist stance is implied by particular policy choices, it ought to be remembered that, ultimately, economic growth and price stability are not in competition, and that a relaxed attitude toward preserving the value of money can quickly devolve into trouble. In the middle and later parts of the 1960s, stable inflation expectations were taken for granted and even exploited, ultimately to ill effect. Arguably, the inflationary problems of the 1970s can, at least in part, be traced to an overly sanguine attitude toward the fragility of price stability in the 1960s. The proof that faith in an economy’s monetary standard is a precious commodity is in our history, and the history of others, from Renaissance Italy to Nazi Germany to the United States in the 1970s to the present situation in Argentina. The goal of central banks all over the world is to avoid relearning this lesson.

### ■ Recommended Reading

Altig, David E., and Owen F. Humpage. 1999. “Dollarization and Monetary Sovereignty: The Case of Argentina.” Federal Reserve Bank of Cleveland, *Economic Commentary* (September 15).

Altig, David E., and Ed Nosal. 2002. “Why Haven’t Long-Term Interest Rates Fallen?” Federal Reserve Bank of Cleveland, *Economic Commentary* (January 1).

*Counterfeit Notes of War*, [http://currency\\_den.tripod.com/War\\_Counterfeits/war.html](http://currency_den.tripod.com/War_Counterfeits/war.html).

Federal Reserve Bank of Cleveland. 2002. “Rhetoric Aligned with Theory: Talking Productively about Interest Rates.” Federal Reserve Bank of Cleveland, 2001 Annual Report.

Pirie, Anthony. 1962. *Operation Bernhard*. New York: William Morrow and Company.

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