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## COMMODITY & CURRENCY COMMENTS

A SPECIAL REPORT

Friedberg Commodity Management Inc.



December 3, 2001

## A dollarization/free-banking blueprint for Argentina

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To put an end to monetary mischief and rein in hyperinflation, Argentina established an unorthodox currency board system on April 1, 1991. Argentines call the system "convertibility," an uncommon term for an unusual system. Like all currency board arrangements, convertibility has maintained a fixed exchange rate on the spot market between the peso and its anchor currency, the US dollar. And not surprisingly, the system has checked inflation: The consumer price index today is about where it was in 1994.

Convertibility has not been trouble-free, however. Indeed, its deviations from currency board orthodoxy have allowed it to behave more like a central bank than a true currency board in some respects.<sup>1</sup> The problems created by convertibility's deviations from orthodoxy, as well as those associated with rigidities in Argentina's economy, became particularly apparent during the Mexican tequila crisis of 1995.<sup>2</sup> The same problems arose in January 1999, after Brazil devalued.

In both cases, the peso traded at a deep discount to the dollar on the forward markets, even though the peso traded at parity with the dollar on the spot market. The discount reflected perceived currency risk and implied that markets viewed the peso as inferior to the dollar. To eliminate the currency risk and lower interest rates in Argentina, former president Carlos Menem suggested in January 1999 the possibility of officially replacing the peso with the dollar. By unilaterally dollarizing the economy, monetary policy would become "looser" because the exchange-rate risk with the dollar would be eliminated, interest rates would be lower, and credit would be more readily available.

An Argentine government study estimated that official dollarization would increase the trend rate of GDP growth by

two percentage points a year at a cost of lost seigniorage of only 25 basis points.<sup>3</sup> My colleague Kurt Schuler and I supported Menem's initiative with a proposal explaining in detail how to achieve official dollarization.<sup>4</sup>

Since then, Argentina's economy has gone from a slump to a crisis that threatens to become a panic. At present, the government is tangled up in what amounts to an elegant default on its debt.<sup>5</sup>

The case for dollarization is stronger today than ever. There is more than one way for Argentina to use the dollar, though. It would be particularly advantageous for Argentina to combine use of the dollar as its unit of account with issue of dollar-denominated notes (paper money) by banks.<sup>6</sup> Competitive note issue by banks has a long history and is known to economists as "free banking" (in Spanish, *banca libre*).<sup>7</sup> By doing so, Argentina would both eliminate devaluation risk from the peso and capture seigniorage – the profit from issuing notes, which otherwise would accrue to the US government.<sup>8</sup>

### **The problem: shrinking deposits and reserves have led to reduced bank lending.**

Argentina's banking system has proved to be hardy in the recession the country has suffered since 1998. Extensive foreign ownership, regulations that require a high level of capital, and prompt action to close insolvent banks have made the banking system much stronger than it was when the tequila crisis hit in 1995. Even so, the system is now under considerable stress.

Table 1 shows key statistics of the Argentine financial system as of November 15. All the key figures have deteriorated over the course of the year. Bank deposits peaked at 84.9 billion pesos in February 2001; peso notes and coins in circulation peaked at 14.4 billion in January; bank reserves (technically known as "liquidity requirements") have fallen from 18.7 billion pesos (22.1% of deposits) in February to

**Table 1 - Key statistics of the Argentine financial system, November 15, 2001**

Central bank (BCRA)—amounts in billions of pesos or dollars			
<i>Assets</i>		<i>Liabilities</i>	
"Pure" foreign reserves	18.816	Peso notes and coins held by public*	8.765
Argentine government bonds	0.311	Peso notes and coins held by banks*	1.839
Reserves against government deposits	0.505	Peso deposits of customers*	1.097
Rediscounts to banks	2.767	Dollar deposits of customers*	6.079
Net of repurchase agreements*	3.004	Other*	0.091
		Government deposits	0.505
*Items comprising monetary base (liability items - asset items = 14.830 billion pesos). Foreign reserve coverage of monetary base = 126.9%.			
Financial institutions—amounts in billions of pesos or dollars			
<i>Assets</i>		<i>Liabilities</i>	
Loans to private sector in pesos	19.015	Peso deposits	21.017
Loans to private sector in dollars	34.790	Dollar deposits	49.028
Loans to government	14.348		
Peso vault cash**	1.802		
Dollar vault cash**	1.011		
Peso deposits at central bank**	1.097		
Dollar deposits at central bank**	6.079		
Dollar reserves held abroad**	0.598		
Government bond of 2002**	2.000		
Other reserves**	0.091		
**Items comprising bank reserves (12.678 billion pesos). Ratio of bank reserves to deposits = 18.1%.			
Interest rates			
	Pesos	Dollars	
Overnight interbank rate	41.4%	26.3%	
Prime rate	48.0%	26.6%	
<i>Note: Some assets and liabilities are unlisted, hence assets may not equal liabilities.</i>			
<i>Source: Banco Central de la República Argentina, Informe monetario diario, November 16 and 19, 2001, available at &lt;http://www.bcra.gov.ar&gt;.</i>			

12.7 billion pesos (18.1% of deposits) as of November 15.<sup>9</sup>

The decline in bank deposits and reserves has put pressure on the banks to reduce their lending. Loans are now more than 10 billion pesos below their high of 77.8 billion pesos in December 2000. As a result of this decline and of fear the peso may be devalued, interest rates are very high in pesos and high even in dollars. Argentina's prime rate in dollars, which has fluctuated between 20% and 25% for some time, compares with a prime rate of 5% in the United States and commercial lending rates of about 10% in the fully dollarized monetary system of Panama, and 15% in the fully dollarized monetary system of Ecuador (which has poorer protection of creditors' rights than Panama does, plus problems in the banking system inherited from the period before dollarization).

**Higher reserves would induce banks to expand credit, helping spur economic growth.**

Banks rely on reserves as a signal to judge whether they should expand or contract credit. When banks think their reserves are too low, they contract credit. When they think their reserves are higher than necessary, they expand credit. Provided that banks have any confidence in the future, reversing Argentina's recent trend of declining bank reserves would therefore lead to an expansion of bank credit and lower interest rates, enabling businesses to undertake projects that are not profitable in today's very high-interest rate environment. More business activity would create jobs and spur economic growth.

**Argentina has plenty of potential bank reserves, but most of it is outside banks and in dollars.**

As reserves, banks use the local monetary base. In the monetary system of most countries, the monetary base (also known as high-powered money, or M0) consists only of mon-

etary liabilities of the local central bank. In Argentina the situation is somewhat different. The one-to-one exchange rate between the peso and dollar, plus the legality of using dollars in many kinds of payments, give Argentina a "bimonetary" financial system, in which the dollar circulates alongside the peso. So, besides the peso monetary base, dollar notes (paper money) in circulation are in effect a potential supplementary monetary base.

For reasons discussed further below, the central bank's power to issue currency should be repealed. In the resulting fully dollarized monetary system, the peso monetary base would be replaced with components of the dollar monetary base - quite feasible, because the central bank has foreign reserves exceeding the peso monetary base. The monetary base would then consist solely of notes and other monetary liabilities issued by the US Federal Reserve System.

As of November 15, the peso monetary base was 14.8 billion pesos, of which the public held 8.8 billion in the form of notes and coins. Because dollar notes circulate from hand to hand without being traced, it is impossible to know precisely how many dollar notes Argentines hold. However, the available evidence suggests that holdings of dollar notes are substantial. The US Treasury estimated in January 2000 that holdings of dollar notes in Argentina were perhaps \$25 billion or more.<sup>10</sup> That seems plausible, because it would make the proportion of dollar notes to peso notes roughly similar to the proportion of dollar deposits to peso deposits (\$49 billion to 21 billion pesos). Peso notes and deposit transfers predominate as the medium of small payments, whereas dollar notes and deposits predominate as stores of value against currency devaluation and other risks.

**Allowing banks to issue dollar notes would help them both increase their supply of reserves on hand and reduce their demand for reserves.**

Adding the known amount of peso notes (which would be replaced by dollar notes in a dollarized system) plus the probable amount of dollar notes held by the Argentine public gives the total monetary base held by the public outside of banks. That amount is about 34 billion pesos (= \$34 billion) - almost three times the current level of bank reserves. There is ample room for banks to gain increased reserves, if they can persuade the public to move the monetary base from outside banks to inside banks. Doing so changes the monetary base into bank reserves.

One way of moving the monetary base from outside banks to inside them is to encourage the public to deposit its Federal Reserve-issued dollar notes. The public would use fewer notes and more deposit transfers, such as checks, in payment.

Another way of moving the monetary base from outside banks to inside them would be to allow banks in Argentina to issue their own notes (paper money), denominated in dollars. Bank-issued notes would be denominated in dollars, not pesos. Denominating notes in dollars would eliminate fears of a devaluation. At the demand of people holding bank-issued dollar notes, the notes would be payable in notes

issued by the US Federal Reserve or in an electronic form acceptable to note holders, such as Fed funds. Bank-issued notes would be much like bank-issued traveler's checks. People would accept the notes if they had confidence in the issuer and reject them if they lacked confidence. They would always have the option of continuing to use dollar notes issued by the US Federal Reserve.

To the extent that the public was willing to accept bank-issued notes in exchange for Federal Reserve-issued notes, banks would increase their *supply* of reserves on hand. Bank-issued notes would also reduce banks' *demand* for reserves. In a monetary system that uses the dollar but where banks are not allowed to issue notes, when depositors wish to exchange deposits for notes, banks must give them Federal Reserve notes. Banks call these reserves "vault cash."

When a depositor wishes to convert a \$100 deposit into 100 pesos of notes, his bank loses \$100 of reserves. If depositors were willing to accept bank-issued notes, converting deposits into notes would not result in any loss of reserves, any more than switching funds from a checking account to a certificate of deposit within the same bank results in a loss of reserves.

Banks would accumulate Federal Reserve dollar notes when people came to deposit them. Banks would put their own notes into circulation by paying out their own notes instead of Federal Reserve notes when depositors wished to convert deposits into notes. Again, depositors would always have the option of demanding Federal Reserve notes rather than bank-issued notes if they desired. If there were sufficient confidence in bank-issued notes, gradually the supply of Federal Reserve notes would be replaced by bank-issued dollar notes.

**The central bank's power to issue currency should be repealed.**

The continuing high rates of interest for peso loans, which result from uncertainty about the government's monetary policy, indicate that the best course of action would be to eliminate the central bank and cease issuing pesos. Doing so would eliminate the perceived risk of devaluation that is hurting Argentina's economy.

The central bank can cease issuing pesos at any time by an administrative decision. It can simply call in all its peso monetary liabilities and give everyone who holds them the equivalent value in dollars. The foreign reserves that the central bank holds are adequate to do so. This would be a form of dollarization.

To discourage future governments from reintroducing the peso, it should be abolished as legal tender, all contracts in pesos should be redenominated in dollars (easy, given the one-to-one exchange rate), and the central bank's power to issue currency should be repealed.<sup>11</sup>

The seigniorage (profit) for the Argentine government from issuance is on the order of 550 million pesos (= \$550 million) a year, though it has been shrinking as the peso note issue shrinks. Under a system of note issue by banks, that profit would accrue to commercial banks rather than to the

government. Ultimately, the profits from issuing notes would tend to be competed away and passed along to customers in the form of lower costs or better services. The great advantage of dollarization under free banking, in contrast to conventional dollarization, is that the seigniorage would stay in Argentina and not be lost to the Federal Reserve.

**Allowing banks to issue notes plus eliminating the peso would result in a powerful "loosening" of monetary policy.**

Allowing banks to issue dollar-denominated notes and repealing the central bank's power to issue pesos would have a powerful effect in making monetary policy "looser," by reducing interest rates. Monetary policy is much "looser" in the United States, Panama, and Ecuador than in Argentina, because the perceived risk of devaluation is absent. In Argentina, the measures proposed here would make monetary policy "looser" through the following channels:

- Eliminating the peso would eliminate currency risk.
- Allowing banks to issue dollar-denominated notes would help them increase their supply of reserves on hand by "capturing" some of the Federal Reserve notes now held by Argentines and replacing them with bank-issued notes.
- Allowing banks to issue dollar-denominated notes would reduce banks' demand for reserves by reducing their need for Federal Reserve notes as vault cash.
- The boost to confidence that would result from eliminating the peso could lead depositors to bring back the deposits that have flowed out of Argentina's banking system in recent months. A similar thing happened in Ecuador after it dollarized in 2000.

**What incentive would the public have to use bank-issued notes?**

The incentive for banks to issue notes is apparent: supplying notes to the public changes from being a cost, as it is now, to a source of profits. But what incentive would the public have to use bank-issued notes?

In contrast to peso notes issued by the Argentine central bank, a great advantage of bank-issued notes would be lower perceived risk. There is no technical reason the peso should be devalued under Argentina's currency board-like system, since the central bank has adequate dollar reserves. Even so, the government's tinkering with the system has created concern that the peso might be devalued.

Bank-issued notes denominated in dollars would be much less subject to fears about devaluation than those issued by the central banks. For one thing, commercial banks are not protected by sovereign immunity as are central banks. Consequently, if a commercial bank broke its promise to redeem one of its dollars for a US dollar, the holder of the commercial bank note could sue the bank. In addition, competitive market forces would push banks to maintain their redemption pledge. After all, if people thought there was a possibility of one bank not fulfilling its redemption pledge, they would switch to another brand of dollar-denominated bank notes. Consequently, incentives in the market and legal system would make the quality of the redemption pledge under free banking

even stronger than under a currency board system.

In contrast to Federal Reserve notes, dollar-denominated notes issued by banks could offer three features that would make them more attractive for the public to use. One is a higher-quality supply. Federal Reserve notes in circulation in Argentina are often more worn than usual, and small denominations are scarce.

The second thing bank-issued notes could offer is design features, such as Spanish words and local symbols, that would appeal to Argentines more readily than the design features of Federal Reserve notes.

The third thing bank-issued notes could offer is a lottery payment feature. The idea, which has been suggested but never put into practice, is that bank notes would be like permanent lottery tickets. Now and then, banks would announce that whoever held a note with a winning serial number, drawn at random, would receive a special payment.<sup>12</sup> The lottery payment feature would be a kind of substitute for payment of interest on notes, because unlike deposits, a note issuer does not know how long a particular person has held a note.

### **Bank-issued notes are nothing new.**

Allowing banks to issue their own notes might seem far-fetched or at least novel, but it is neither. Many financial firms already issue paper travelers checks, which resemble currency, although they cannot pass from hand to hand without having to be endorsed.

Before the 20th century, commercial banks issued their own notes in most financially advanced countries of the time – nearly 60 countries in all. Multiple brands of notes did not confuse people any more than multiple brands of traveler's checks now do. Governments took over note issuance from commercial banks not because the private sector was doing a bad job, but because governments wanted the profits for themselves.

The record of private issuance of notes was generally good.<sup>13</sup> In some countries bank failures caused losses to note holders, but the losses were small compared with the losses inflicted by the central banks that later took over note issuance.

Argentina was one of the countries that had note issuance by commercial banks, in the 1880s. Argentina had a rather unhappy experience, because it made a number of mistakes. One was that rather than being redeemable in gold, bank notes were redeemable in government-issued pesos, a depreciated fiat currency, rather than in an international unit such as gold or the pound sterling. Another mistake was that as a condition for issuing notes, banks were required to hold specified Argentine government bonds. Argentina's default on its foreign debt in 1890 triggered a currency and banking crisis. It was not the banks, but the government that created the crisis. Even so, the government responded by ending note issuance by banks and establishing the Caja de Conversión in 1891. In 1902 the Caja began to operate as a currency board, and continued to do so, providing Argentina with one of its few periods of monetary stability, until the First World War broke out in 1914.

The United States is another country where restrictions

on banks gave note issuance by banks an undeserved black eye. US banks were prohibited from establishing branches across state lines or in most cases even within states. As a result, the banking system consisted of thousands of small and often weak banks, rather than the small number of larger, stronger banks that existed in Canada and other countries that did not restrict branch banking.

Thousands of banks meant thousands of varieties of bank note brands and greater proportional losses to note holders from bank failures than occurred in Canada. In addition, banks chartered by states were often required to back the dollar notes they issued with low-quality bonds issued by the states. This was a formula for problems with banking and currency quality. Countries that did not make the regulatory mistakes that Argentina and the United States did had much happier experience.

### **Would it work?**

Extensive historical experience indicates allowing Argentine banks to issue notes under similar regulations that now concern their taking of deposits would not cause any particular problems. Again, people now accept multiple brands of traveler's checks and bank debit and credit cards in payment. Allowing banks to issue their own notes would simply be an extension of the competition that already exists in other spheres. Argentines already accept both central bank-issued peso notes and Federal Reserve-issued dollar notes, so some degree of competition already exists for notes.

The workings of a system of note issuance by banks have been the subject of considerable theoretical and historical research.<sup>14</sup> There is no need to repeat the findings of that research here, except to reply briefly to a few commonly asked questions.

\* *How stable would the system be?* The large-scale changes resulting from the tequila crisis in 1995 made Argentina's banking system much more stable by closing weak government-owned banks and a few small privately owned banks not well suited to the changing times. Within the last year, the system has withstood stresses that would have made many banking systems elsewhere crack. Banks such as Citibank, Deutsche Bank, and HSBC are in better financial condition than the Argentine government, so the public would be likely to find them more trustworthy than the government as issuers of currency.

Were banks allowed to issue their own notes, changes in the public's demand to hold notes as opposed to deposits could be satisfied by increasing the supply of bank-issued notes. Bank reserves would remain unchanged. In contrast, under the current system, a change in the public's demand to hold notes changes bank reserves because notes are "high-powered money." The current system is less stable in that sense than a system of bank-issued notes would be.

\* *What would happen to note holders if banks failed?* Bank notes, like bank deposits, would be a general claim on the assets of failed banks. In some countries where banks have issued their own notes, local laws have required banks to hold special reserves against notes or have given notes priority over deposits as claims to the assets of a failed bank. There

is no particular reason why notes should have priority. Should people not trust bank-issued notes, they will have the option of using Federal Reserve-issued notes.

Historically, bank failures that caused big losses to note holders and depositors were infrequent in monetary systems where banks issued their own notes and did not face burdensome regulatory restrictions.<sup>15</sup>

One of the supposed advantages of central banking is that a central bank can act as a "lender of last resort" to rescue commercial banks. But central bank rescues are not free, and in practice, they have encouraged bad banking practices and have been enormously costly for taxpayers around the world.

Argentina holds the record for the costliest banking system failure on record, as a percentage of GDP: Failures from 1980-82 caused losses of an estimated 55% of GDP, much of which was paid by taxpayers. In contrast, under the convertibility scheme, which greatly reduced the central bank's capacity to rescue commercial banks, Argentina's 1995 banking problems are estimated to have cost only 1.6% of GDP.<sup>16</sup> By creating an open-ended liability for taxpayers, the capability of central banks to act as lender of last resort has generally led to less stable rather than more stable banking.

**\* *Would fraud and counterfeiting be big problems?*** By fraud, I mean banks established with the intent of swindling the public, by issuing notes and then running away with the assets. Counterfeiting does not appear to be a big problem now in Argentina. If banks issued their own notes, it would likely be even less of a problem, because bank-issued notes tend to return to the counter of the issuer for inspection more often than central bank-issued notes (particularly Federal Reserve notes, in Argentina's case, because Argentina is a long distance from the United States). Counterfeits are more readily traced to the source the shorter the time they circulate before passing through the hands of a bank teller or a bank note-sorting machine.

**\* *What would limit the system's ability to inflate?*** Some people think that bank-issued notes would enable banks to create inflation without limit. This misconception arises because people are unaware of the difference between notes issued in monopoly fashion by a central bank and notes issued competitively by commercial banks.

Notes issued by a central bank are forced tender, that is, people in the country that has the central bank are required to accept them in payment. Forced tender laws deprive people of the choice of using better currencies, requiring use of the local currency no matter how much inflation it suffers. Moreover, central banks cannot be sued for devaluing. Notes issued by commercial banks would not be forced tender, so if banks did not keep their promise to redeem them in dollars they would be subject both to loss of market share and lawsuits. The means by which banks would be held to their promise is the clearing system. Banks would present the notes of rival banks for payment through the clearing system, just as they now do with checks and as they have done historically in systems of note issue by banks.<sup>17</sup>

**\* *Would an influx of bank reserves cause a burst of high inflation?*** If bank-issued notes were to increase bank reserves

substantially by displacing Federal Reserve-issued notes from circulation in Argentina, increased reserves would encourage banks to expand credit. Argentina's generally falling prices would probably change to rising prices. Inflation should remain well in single digits, though, because the dollar is a low-inflation currency and Argentina is substantially though not perfectly integrated into world financial markets.

The foreign banks that play a large role in the Argentine banking system seek the most profitable opportunities worldwide. They can easily lend anywhere, not just in Argentina, so a doubling of their reserves in Argentina would not mean they would double loans there. Even for Argentine banks, lending opportunities in the domestic market compete with lending opportunities abroad, such as buying foreign bonds.

#### **There are no constitutional barriers to note issue by banks.**

Unlike the case in some other countries, nothing in Argentina's constitution stipulates that it must have a central bank or a nationally issued currency. In fact, because the constitution has roots in the 19th century, when note issue by multiple banks was widespread around the world, the constitution contemplates the possibility of multiple issuers.

Article 75, paragraph 6 of the constitution gives the Argentine Congress the right to "Establecer y reglamentar un banco federal con facultad de emitir moneda, así como otros bancos nacionales" (establish and regulate both a federal bank with the ability to issue money, and other national [that is, federally chartered] banks). However, the constitution explicitly contemplates the possibility of multiple note issuers in article 126, which states that "Las provincias...[n]o pueden...acuar moneda; ni establecer bancos con facultades de emitir billetes, sin autorizacion del Congreso Federal" (provinces may not coin money or establish note-issuing banks without the authorization of the federal Congress).<sup>18</sup> By implication, the federal government may itself authorize banks to issue notes, or it may authorize the provinces to charter private or government-owned banks that issue notes.

Argentina's Law on Financial Institutions does not mention note issuance as a permitted power of commercial banks or other financial institutions. The Organic Law of the Central Bank gives the central bank power to issue notes but does not state that the power is a monopoly. It may be possible to give commercial banks the freedom to issue notes through administrative decisions, without changing any existing laws. As was mentioned above, though, it would be desirable to eliminate any role for the central bank as an issuer of currency, which would require amending the Organic Law of the Central Bank.<sup>19</sup>

#### **Conclusion.**

Replacing the peso issued by the central bank with dollar-denominated notes issued by commercial banks would eliminate the perceived risk of devaluation of the peso, increase the supply of bank reserves, reduce banks' demand for reserves, and promote a return of deposits into the banking system. The result would be much lower interest rates and a boost to Argentina's lagging economy. There is nothing novel about

such a system. It is technically feasible and can begin to operate as soon as banks can get notes printed.

Ten years ago the Argentine government ended a recession and launched the economy onto a path of growth by establishing the convertibility system. The convertibility system was a vast improvement over the monetary policy it replaced, but over time its weaknesses have become more and more burdensome. The steps proposed here will correct those weaknesses and help launch Argentina on a new path of growth. Monetary policy alone cannot sustain growth, however. To accomplish that goal, Argentina will have to implement fiscal and legal reforms that increase the level of transparency and reduce corruption. In addition, the economy remains too inflexible and desperately needs a supply-side overhaul.

## Notes

<sup>1</sup>An early diagnosis of these problems was made in Steve H. Hanke, Lars Jonung, and Kurt Schuler, *Russian Currency and Finance: A Currency Board Approach to Reform*. London: Routledge, 1993, pp. 72-6.

<sup>2</sup>Steve H. Hanke, "Some Reflections on Currency Boards," in Mario I. Blejer and Marko Skreb (eds.) *Central Banking, Monetary Policies, and the Implications for Transition Economies*, Boston: Kluwer Academic Publishers, 1999, pp. 341-66.

<sup>3</sup>The government expressed its ideas in Banco Central de la República Argentina, "Tratado de asociación monetaria. Profundizar la convertibilidad: un camino hacia la Unión Monetaria Americana," mimeo, January 21, 1999; and "Global Currencies as a Central Contemporary Trend: Basis of the Dollarization Strategy and a Treaty of Monetary Association," working paper submitted by the Secretary of State for Strategic Planning, Dr. Jorge Castro, to the Presidential Cabinet of the Argentine Republic on April 15, 1999 (unofficial translation).

<sup>4</sup>Steve H. Hanke and Kurt Schuler, "A Dollarization Blueprint for Argentina." *Friedberg's Commodity and Currency Comments Experts' Report*, February 1, 1999, also available as Cato Institute Foreign Policy Briefing no. 52, March 11, 1999, <<http://www.cato.org/pubs/fpbriefs/fpb52.pdf>>.

<sup>5</sup>For analyses of causes of this evolution, see Steve H. Hanke, "The Confidence Question," *Forbes*, September 18, 2000; "Argentina's Boom and Bust," *Forbes*, April 16, 2001; "An Exit Strategy for Argentina," *Forbes*, August 20, 2001; and "The Hoodwinkers," *Forbes*, November 26, 2001. These are available online at <[www.forbes.com/hanke](http://www.forbes.com/hanke)>.

<sup>6</sup>A similar suggestion has been made by George Selgin, "Let Private Money Spark a Recovery in Argentina," *Wall Street Journal*, August 17, 2001, p. A9.

<sup>7</sup>A free banking system in the general sense means one largely devoid of special regulations that prevent banks from doing things that other businesses commonly can. Free banking in this sense must be distinguished from some historical systems that were called "free banking" because they were less restrictive in some respects than the systems they replaced, but which

required banks to hold specified government bonds as a condition for issuing notes, prohibited branch banking, or imposed other regulations that did not generally apply to other businesses. "Free banking" systems of that type existed in a number of US states in the mid 1800s.

<sup>8</sup>For simplicity, Argentina could at least initially use US coins. The seigniorage generated by coins is small compared to that from notes.

<sup>9</sup>Monthly figures come from the central bank's *Información monetaria y financiera mensual and Informe monetaria diario*, available at its Website, <<http://www.bcra.gov.ar>>, and are averages of daily figures.

<sup>10</sup>U.S. Treasury Department, *The Use and Counterfeiting of United States Currency Abroad*, January 2000, p.19, <<http://www.federalreserve.gov/boarddocs/RptCongress/counterfeit.pdf>>.

<sup>11</sup>An alternative course would be to allow the central bank to continue issuing notes in competition with commercial banks. However, if Argentina's history is a guide, the government will be more tempted to meddle with the monetary system in ways that are harmful to the economy, as long as the central bank continues to exist.

<sup>12</sup>J. Huston McCulloch, "Beyond the Historical Gold Standard," pp. 74-5, in Colin D. Campbell and William R. Dougan (eds), *Alternative Monetary Regimes*, Baltimore: Johns Hopkins University Press, 1986, pp. 73-81.

<sup>13</sup>Kevin Dowd, ed., *The Experience of Free Banking*, London: Routledge, 1992.

<sup>14</sup>For a guide to research on free banking, see George A. Selgin and Lawrence H. White, "How Would the Invisible Hand Handle Money?," *Journal of Economic Literature*, v. 32, no. 4, December 1994, pp. 1718-49. Online, see the Websites of Selgin, at <<http://www.terry.uga.edu/~selgin/>>, and White, at <<http://www.umsl.edu/~whitelh/links.html>>. Selgin has proposed that banks in Hong Kong, whose monetary system is somewhat like that of Argentina, be allowed to issue notes. George A. Selgin, "A Free Banking Approach to Reforming Hong Kong's Monetary System," *Asian Monetary Monitor*, v. 12, no. 1, January-February 1988, pp. 14-24.

<sup>15</sup>See the essays in Kevin Dowd, *The Experience of Free Banking*, London: Routledge, 1992.

<sup>16</sup>Gerard Caprio, Jr., and Daniela Klingebiel, "Episodes of Systemic and Borderline Financial Crises," World Bank paper, October 1999, p. 8.

<sup>17</sup>For an explanation of how the money supply works in under a system of bank-issued notes, see George A. Selgin, *The Theory of Free Banking: Money Supply Under Competitive Note Issue*, Totowa, New Jersey: Rowman and Littlefield, 1988.

<sup>18</sup>Federally chartered banks in the United States have had the capacity to issue notes since 1994 (for the first time since 1935). One reason they have not issued notes is that they have been unaware the law allowed them to do so. See Kurt Schuler, "Note Issue by Banks: A Step toward Free Banking in the United States?," *Cato Journal*, v. 20, no. 3 (Winter 2001), pp. 453-65, <<http://www.cato.org/pubs/journal/cj20n3/cj20n3-8.pdf>>.

<sup>19</sup>Selected laws concerning the Argentine financial system are available on the Website of the central bank at <<http://www.bcra.gov.ar/publica/epub0001.asp>>.

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