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A Proposal of Monetary Reform for Argentina

Flexible Dollarization and Free Banking

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NICOLÁS CACHANOSKY AND ADRIÁN O. RAVIER

Any system which gives so much power and so much discretion to a few men that mistakes—excusable or not—can have such far reaching effects is a bad system. . . . Mistakes, excusable or not, cannot be avoided in a system which disperses responsibility yet gives a few men great power, and which thereby makes important policy actions highly dependent on accidents of personality. This is the key technical argument against an “independent” bank. To paraphrase Clemenceau, money is much too serious a matter to be left to the Central Bankers.

—Milton Friedman, *Capitalism and Freedom*

The Need for Institutional Reform

Once again Argentina is experiencing a serious institutional and economic crisis. A centerpiece of the economic imbalance is the weakness and untrustworthiness of its monetary institutions, manifested by high inflation and currency devaluation. We acknowledge that the economic and social problems

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currently affecting Argentina extend beyond monetary policy. The monetary reform that we offer here should not be understood as a sufficient measure to end the recurrent economic problems in Argentina but as a useful step in that direction.

Our plan is an update of the monetary reform for Argentina proposed by Steve Hanke and Kurt Schuler (in Hank and Schuler 1999a, 1999b; Hanke 2001; Schuler and Hanke 2002), with insights from George Selgin's proposal for the United States (1988, chap. 11). Briefly, our proposal, which closely follows Hanke and Schuler's, is that the central bank be eliminated as the monetary authority and that the Argentine peso (ARS) be eliminated as the country's national currency. The central bank should change all ARS into U.S. dollars (USD), but no restrictions should be imposed on the use of other currencies to negotiate contracts. Hence, the term *flexible dollarization*: the country would not be tied to the USD but freed from the ARS. In other words, Argentina should unilaterally dollarize rather than enter into a bilateral agreement with the U.S. Federal Reserve. In addition, commercial banks should be allowed to issue their own banknotes. As discussed later, this second aspect of the reform has financial and macroeconomic benefits.

The fact that the Central Bank of the Argentine Republic (BCRA) is unable or unwilling to efficiently manage the supply of currency is—or should be—undisputed. Argentina currently has one of the highest inflation rates in the world, yet the highest-ranking authorities of the BCRA and national government publicly deny that mismanagement of the money supply is the cause of prices increasing at annual rates of 25 percent or higher.¹ In addition, in 2012 the representatives of Congress approved a reform to the Carta Orgánica, or BCRA Law, that freed the central bank from its responsibility to preserve the Argentine currency's purchasing power; instead, the BCRA's new mandate is to promote, to the extent of its ability and within the bounds of *national government policies*, monetary stability, financial stability, employment, and economic development with social fairness.²

Politicians' disdain for the inflation issue (and their fear of political consequences if they openly admit responsibility) is not limited to the BCRA. The National Institute of Economic Census (INDEC) has supplied unreliable inflation estimates since at least 2007, which in turn has affected the calculation of other key economic indicators, such as gross domestic product (GDP) and poverty. The World Bank and *The Economist* are two examples of reputable institutions that have stopped publishing economic data from Argentina. A ruling class that is

1. According to the latest available data from the National Congress, the inflation rate in Argentina between April 2013 and April 2014 is estimated to be 39.5 percent (see "Indices" n.d.). This is the highest twelve-month inflation rate since January 2003. (Congress makes available to the public a composite of private estimations of inflation every month. "Indices" n.d. provides those estimations. As mentioned below, INDEC Argentina's Bureau of Economic Analysis is not reliable; the numbers provided by Congress are used now.)

2. See Article 3 in "Ley 24.144: Carta Orgánica del BCRA" 2012.

uncommitted to basic monetary management should not be permitted to maintain a central bank that allows itself to be a political tool of government officials.

The present monetary weakness in Argentina is arguably a reflection of the country's history of monetary mismanagement. From the BCRA's foundation in 1935 to 2013, Argentina had a compounded equivalent yearly inflation rate of 50 percent. This means that 4.58×10^{14} ARS in 2012 had the same purchasing power as one ARS in 1934.³ This is not the result of hyperinflation in the late 1980s; rather, it is the result of a chronic inflationary problem. During the seventy-seven years of monetary management by the BCRA, Argentina's inflation rate has been lower than 10 percent in only twenty-three years and lower than 5 percent in only seventeen years. An inflation rate lower than the 2 percent level—which any serious central bank would consider to be an acceptable benchmark—was achieved in only eleven years.⁴ For twenty-one of those years, inflation was higher than 50 percent. Argentina has removed thirteen zeroes from its unit of account through various currency denomination exchanges since the foundation of the BCRA.

We think that the absence of strong and sound monetary institutions in addition to the lack of interest by policy makers in defending the BCRA's independence are compelling reasons to consider a radical reform of Argentine monetary institutions. We also believe that the argument that Argentina should not surrender its central bank and monetary-policy “sovereignty” because a “better policy can be put in place” is, in light of Argentina's historical performance and policy makers' behavior, an exercise in wishful thinking.

The proposal presented here does not address all of the small and technical details that would be necessary for the implementation of monetary reform. Rather, it addresses the general themes, problems, and objections relating to flexible dollarization and free banking in Argentina.

It is worth mentioning that there is no such thing as the perfect monetary institution, and every monetary arrangement suffers from shortcomings. The proposal presented here is no exception. However, it is unwise to make the inevitability of imperfections the enemy of improvement. If imperfections were enough to dismiss any monetary institution, then the BCRA should be rejected with much more urgency than our proposal.

We present our proposal as follows: the first section discusses the pitfalls of the convertibility law put in place between 1991 and 2002 and presents an overview of the present economic situation; the second section discusses the need for a balanced budget as a prerequisite of monetary reform; the third section discusses the various aspects of our proposal; the fourth section responds to potential objections to our proposal; and the final section offers concluding remarks.

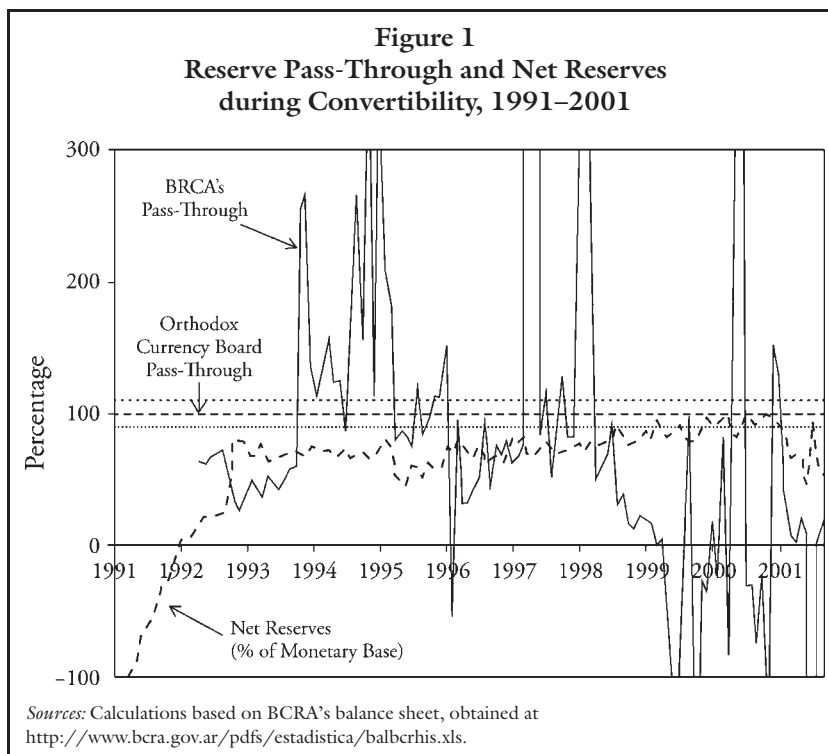
3. In other words, 458,000,000,000,000 ARS in 2012 equals only one ARS in 1934.

4. As indicated in Reinhart and Rogoff 2009 and by private inflation estimates issued by opposing members of the National Congress (for 2007 to 2012).

Recent Argentine Economic History: Was the BCRA a Currency Board during the Convertibility Era (1991–2002)?

Although some describe the convertibility of the ARS between 1991 and 2002 as a currency board system, a distinction between orthodox (strong) and heterodox (weak) currency boards should be made. An orthodox or strong currency board ties the central bank's hands to avoid monetary policy mismanagement, whereas a heterodox or weak currency board leaves room for the central bank to conduct monetary policy. During the convertibility era, the BCRA was under a weak currency board regime. For instance, the BCRA was allowed to have as little as 66.5 percent of monetary liabilities in foreign reserves (this amount was later increased to 90 percent). Under an orthodox currency board, the BCRA would have been required to keep between 100 and 110 percent of monetary liabilities in foreign reserves. Unlike an orthodox currency board system, in which the monetary base's behavior mirrors that of foreign reserves, the convertibility law provided enough leeway for the BCRA to continue practicing monetary policy.

During periods in which this weakness was actively exploited, “speculative attacks” against the ARS occurred. Hanke (2008) shows the deviation from an orthodox currency board with a plot like the one shown in figure 1. The graph shows (1) the reserve pass-through (the change in the monetary base divided by



the change in net foreign reserves) and (2) the net reserves as a percentage of the monetary base. An orthodox or strong currency board would have a reserve pass-through of 100 percent. As the graph shows, the BCRA cavalierly exploited the loopholes of the heterodox currency board. The plot shows a dotted line at 90 percent and 110 percent; net foreign reserves as a percentage of the monetary base rarely fall within this region.⁵

During the convertibility era, Argentina was under neither a strict currency board regime nor masked dollarization. Accordingly, the 2001 crisis in Argentina could not have been due to an orthodox currency board regime because that regime was never actually implemented; rather, the crisis was due to an unsustainable level of public debt driven by fiscal deficits. Therefore, the mistakes and problems that led to the 2001 crisis are not valid arguments against the proposal we offer here and are not illustrative of how our proposal would work.

It is often argued that Argentina's monetary crisis occurred as a result of Brazil's devaluation in 1999.⁶ However, although Brazil is certainly an important trading partner of Argentina and the Brazilian crisis obviously had an impact on the Argentine economy, Argentina's own fiscal problems were the root cause of its monetary crisis. Convertibility collapsed when international funding to Argentina became unavailable. Argentina's deep fiscal imbalances and high foreign debt would have been unsustainable regardless of the Brazilian crisis.

Although Brazil is Argentina's largest trading partner, it does not offer a currency that is as stable and solid as the USD. Brazil also has a history of high inflation (until recently), which makes the Brazil real a weak choice to peg the ARS if the objective is to curb inflation.⁷ In addition, because our proposal does not fix Argentina to any specific currency, the market can shift to the Brazilian real if the real proves to be a better choice for economic agents. In addition, the devaluation of the Brazilian real should not be a major concern if Argentina sticks to the USD and remains on a path of solid growth. If Argentina's export sector is truly competitive and not merely "competing" through an artificially devalued currency, then the market for Argentina's products is not just Brazil but the entire world. In fact, an improvement in competitiveness combined with an open economy will diversify trading partners and reduce the risk of devaluation by other currencies.

5. Net reserves (from monetary liabilities) are the "net external assets," and the monetary base is the "total monetary base" disclosed in the BCRA's consolidated financial statements.

6. The devaluation ratio in 1999 was two to one. In 2004, the ratio was four to one. There were two other previous crises, in Asia in 1997 and in Russia in 1998.

7. Brazil's inflation rate (Consumer Price Index) fell to a single digit in 1997 (6.9 percent). Since then, it has not fallen lower than 2 percent but has ranged from a minimum of 4.2 percent (2006) to a maximum of 14.7 percent (2003) (from the World Bank WDI database at <http://databank.worldbank.org/data/databases.aspx>).

Argentina's Current Economic Situation

Table 1 shows the primary economic indicators for Argentina between 2006 and 2013. Note in particular (1) the difference between official and private estimates of inflation and GDP growth since 2007,⁸ (2) the spread between the official exchange rate and the black-market (called the “blue market” in Argentina) exchange rate, and (3) the tax pressure.

There are two breakpoints in the recent evolution of Argentina's economy. The first occurred in 2007, when monetary expansion increased and the devaluation rate fell below the inflation rate. The second breakpoint occurred after the presidential election in 2011, when President Cristina Kirchner decided *de facto* to prohibit access to the USD (with a restriction known as “cepo cambiario” in Argentina) and to restrict imports from and transfers to foreign countries. The high inflation rate contributed to the problem by reducing the demand for pesos, which gave the inflation rate momentum and drove an active black market for the USD. Figure 2 shows the amount of and change in net reserves during 1999–2013. The graph shows that the drain of net reserves over the last three years of the period was far worse than the drain on reserves during the 2001 crisis.

The difference between the official and black-market exchange rates, combined with the fall in net reserves at the BCRA, led to a devaluation of the ARS from 6.50 ARS per one USD to 8.00 ARS per one USD in January 2014. However, this measure failed to bring monetary stability. Inflation did not decrease its pace, and the current exchange rate in the black market is approximately 12 ARS per one USD.

Finally, the government's use of the BCRA to finance government spending is revealed on the BCRA's balance sheet as nontransferable bills from the national Treasury and temporary advances to the national government (figure 3). By the end of 2013, nontransferable bills from the national Treasury represented 39.4 percent of the total assets on the BCRA's balance sheet.

Prerequisites for the Monetary Reform

Before discussing the proposed monetary reform in more detail, the need for fiscal reform to balance the budget must be emphasized. A reform like the one proposed here will fail if the structural fiscal deficit remains unresolved. Thomas Sargent and Neil Wallace (1981) argue that deficits can be financed by issuing money or issuing bonds. However, when fiscal policy dominates monetary policy and the economy's real growth rate is lower than the interest rates on bonds, the situation becomes unstable. Under these conditions, there will come a point when deficits (which

8. In 2014, INDEC issued new GDP calculations using 2004 as the base year (rather than 1993, which was the base year for the previous series). The new estimates are closer to private estimates. When the new GDP values were published, the media noted the “convenient fact” that the new estimate for 2013 fell just below the threshold that would have triggered the payment of bonds linked to GDP performance.

Table 1
Economic Indicators, Argentina, 2006–2013

	2006	2007	2008	2009	2010	2011	2012	2013
Real GDP Growth Rate (official; base year 1993)	8.5%	8.7%	6.8%	0.9%	9.2%	8.9%	1.9%	N/A
Real GDP Growth Rate (official; base year 2004)	8.4%	8.0%	3.1%	0.1%	9.1%	8.6%	0.9%	3.0%
Real GDP Growth Rate (private)	–	8.7%	3.7%	–3.1%	8.8%	6.3%	0.4%	3.1%
Inflation Consumer Price Index (CPI) (official)	9.8%	8.5%	7.2%	7.7%	10.9%	9.5%	10.8%	10.9%
Inflation CPI (private)	–	25.7%	23.0%	14.8%	27.9%	22.8%	25.1%	28.4%
Monetary-Base Growth Rate	46.4%	24.0%	10.2%	11.9%	31.0%	39.0%	37.9%	22.7%
Net Foreign Reserves (in millions of USD)	26,500	40,800	35,800	36,700	38,400	34,700	29,200	15,600
Exchange Rate ARS/USD (official)	3.07	3.15	3.45	3.80	3.98	4.30	4.92	6.52
Exchange Rate Devaluation (official)	1.3%	2.7%	9.6%	9.9%	4.7%	8.2%	14.3%	32.6%
Exchange Rate ARS/USD (blue/black market)	3.09	3.17	3.53	3.86	4.11	4.73	6.79	10.00

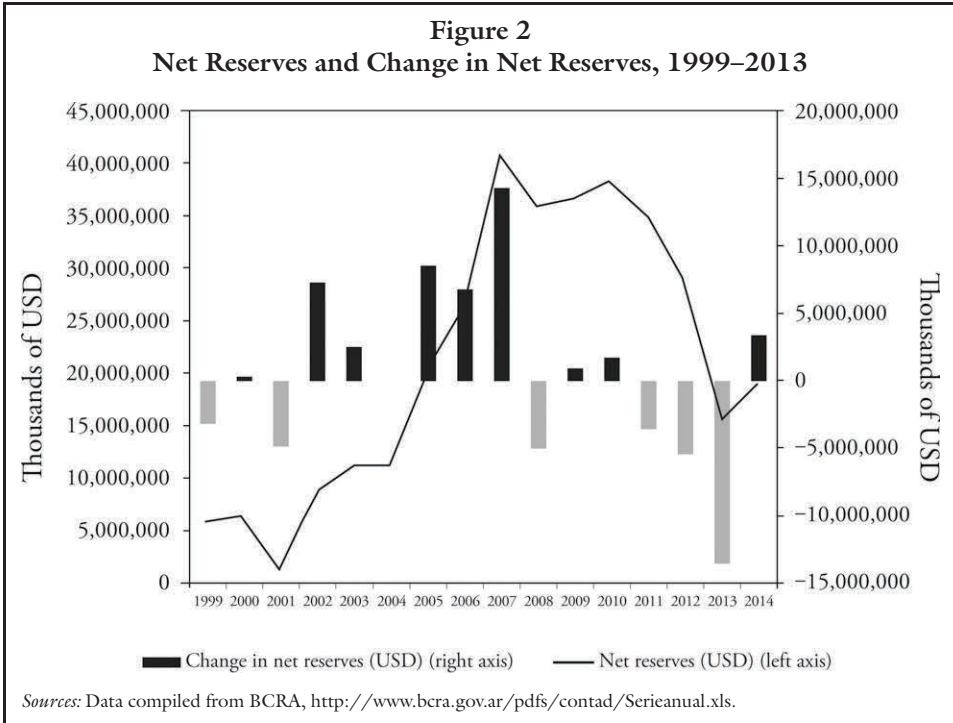
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Table 1
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	2006	2007	2008	2009	2010	2011	2012	2013
Exchange Rate Devaluation (blue/black market)	1.3%	2.6%	11.4%	9.3%	6.3%	15.4%	43.5%	47.1%
Private Deposits in the Financial System (ARS, in millions)	80,571	102,200	113,582	131,691	174,740	227,950	313,036	382,873
Private Deposits in the Financial System (USD, in millions)	4,945	6,769	8,012	10,231	11,734	12,184	7,982	6,926
Deposit Interest Rate (ARS)	6.4%	8.0%	11.0%	11.6%	9.2%	10.7%	12.0%	N/A
Lending Rate (ARS)	8.6%	11.1%	19.5%	15.7%	10.6%	14.1%	14.1%	N/A
Tax Pressure (% of GDP) *	31.0%	34.5%	35.9%	35.9%	38.8%	39.9%	43.1%	44.9%

* Revenue from all levels of government plus inflationary tax as a percentage of official nominal GDP.

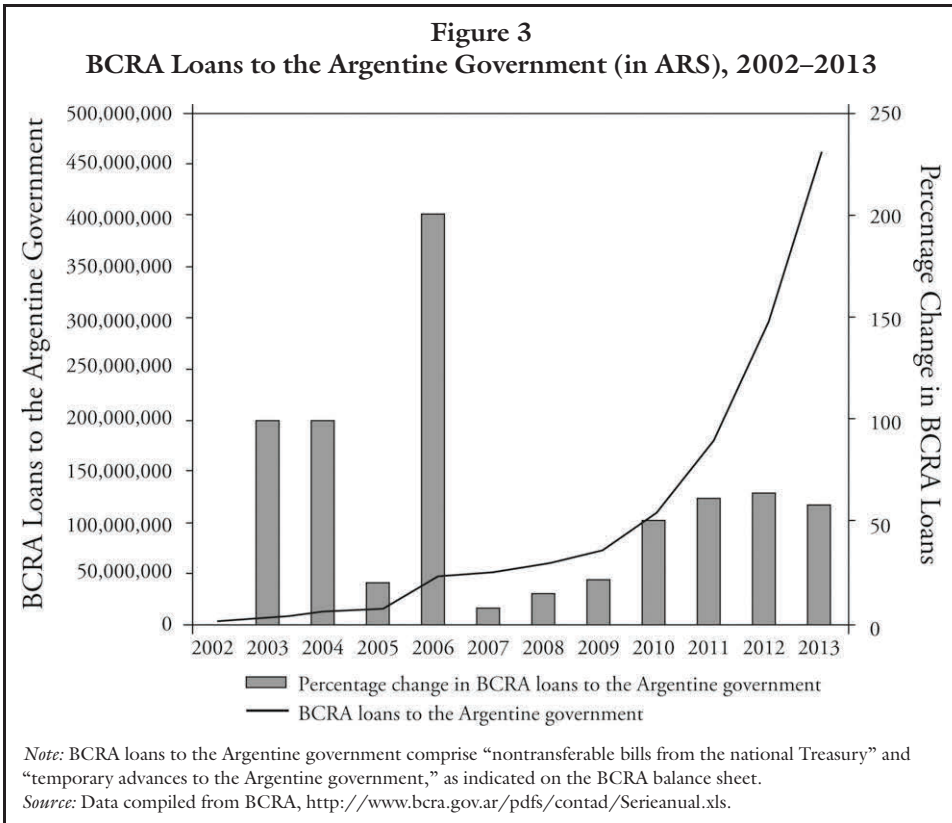
Sources: Data compiled from BCRA (<http://www.bcr.gov.ar/pdfs/contad/Serieanual.xls>); Coremberg 2014; INDEC databases (http://www.indec.gov.ar/nivel2_default.asp?seccion=E&id_tema=3); Ministerio de Economía database (<http://www.mecon.gov.ar/sip/basehome/retrib.htm>); Unión por Todos (http://unionpor todos.org/index.php?option=com_content&view=article&id=1473&Itemid=1118); and for the USD/ARS blue/black market exchange rate, Ambito Financiero (<http://www.ambito.com/economia/mercados/monedas/dolar/info/?ric=ARSB=>).



include capitalized debt) can no longer be financed through bonds and must instead be financed with the money supply.⁹

The structural fiscal deficit is built on an unsustainable level of government spending, not on low tax rates. As shown in table 1, the 2013 tax pressure is estimated to be approximately 45 percent. There is no room to increase taxes further to reduce the fiscal deficit. Therefore, the government must work on the spending side. This can be accomplished either by sensibly lowering the growth rate of spending or by taking steps to reduce the level of spending. The former strategy would require more time, but either strategy would require a serious fiscal restructuring, the result of which should be a credible balanced budget. As Pablo Guido and Gustavo Lazzari (2003) maintain, the fiscal deficit of the 1980s was financed with the money supply, and the result was the hyperinflation at the end of the decade. During the 1990s, the fiscal deficit was financed through the proceeds of privatizations and foreign debt, which led to default and the abandonment of ARS convertibility to USD. Since the 2001 crisis, the fiscal deficit has been financed through the nationalization of stocks and private pension funds (such as the Administradoras de Fondos de

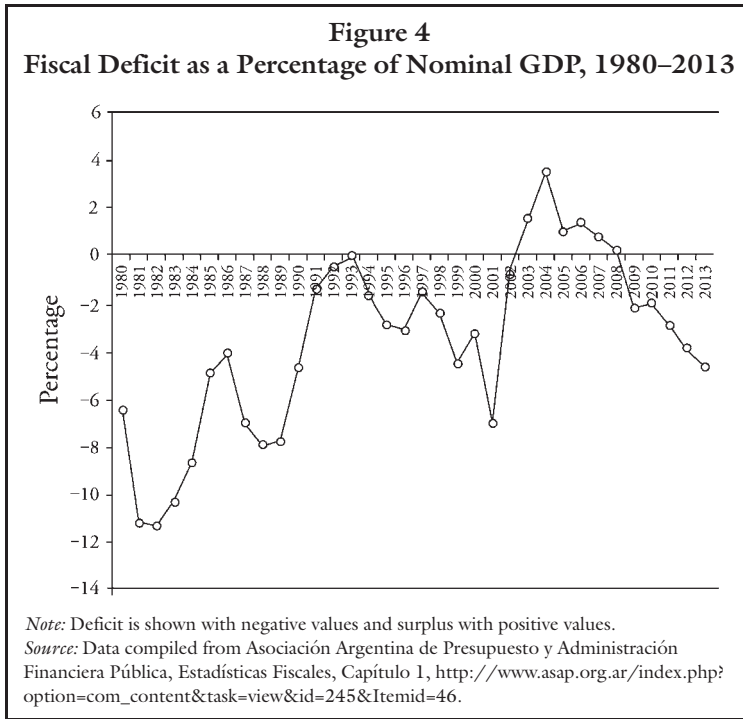
9. Sargent and Wallace (1981) discuss this problem for the United States, where debt is denominated in USD. Argentina also has debt denominated in USD, but it also issues ARS. Because of this discrepancy, Argentina cannot “print money” to monetize the debt. In such a situation, if a country cannot acquire enough USD, it may default on its debt instead of having high inflation. This situation describes Argentina’s path to the 2001 crisis, which included a default on outstanding debt denominated in USD.



Jubilaciones y Pensiones, Argentina’s private retirement fund companies) as well as the money supply. Figure 4 shows the evolution of the financial deficit (primary deficit plus net payment of interest) as a percentage of nominal GDP, clearly indicating the federal government’s chronic deficits.

Without ignoring the fact that our fiscal restructuring will have a social impact in the short run, we believe that it can be implemented. In 2013, 22 percent of government spending was attributable to transfers to the private sector. Most of these transfers were subsidies given to utility providers (gas, water, transportation, etc.) to keep utility prices low. Without these transfers, the fiscal deficit of –64,500 million ARS becomes a surplus of 89,600 million ARS. In addition, the deficit attributable to public companies was 10,000 million ARS in 2013.¹⁰ Although government spending might be restructured further to improve efficiency, the quick implementation of these proposed spending adjustments will have a significant impact on the budget by themselves. Further reforms should address the excessive number of government

10. Fiscal information can be found at website of the Oficina Nacional de Presupuesto at the Secretaria de Hacienda, Ministerio de Economía y Finanzas Públicas (National Budget Office at the Secretary of the Treasury, Ministry of Economics), <http://www.mecon.gov.ar/onp/html/>.



employees and social programs that fail to reinsert aid recipients back into the labor market. These social programs work as de facto subsidies for people to remain unemployed (some households have remained unemployed for three generations).

Monetary Reform

Monetary Reform I: Flexible Dollarization

“Dollarization” usually means that a country uses the USD rather than its own currency as the national currency. However, a country can also “dollarize” its economy by adopting a currency other than the USD (for instance, the Australian dollar or the euro or the British pound or the Japanese yen). Our proposal does not suggest swapping one national currency, the ARS, for another; instead, it suggests that residents and firms in Argentina be allowed to use any currency they want. The freedom to choose a currency is what we mean by *flexible* dollarization. At the moment, Argentine residents have only limited opportunities to save in currencies other than the ARS. They are prisoners of a rapidly devaluing currency and demand USD in the black market to protect their savings.

Given the demand for and possession of USD by the Argentine market, we think that the likely first step in moving out of the ARS would be moving toward the USD, which is already a de facto second currency in the country. For instance, transactions for big-ticket items, such as real estate, are either performed in USD or priced in ARS

anchored to the value of the USD. The country may move out of the USD to any other currency or use more than one currency according to the preferences of its economic agents. For example, Argentina might use the USD, the euro, and the Brazilian real in parallel, and any person or firm could open a bank account denominated in any of these currencies. However, due to network effects, it is likely that one predominant currency or unit of account will be used to perform domestic-market exchanges.¹¹

The BCRA should take all ARS out of circulation and exchange them for the net reserves of USD. Several aspects of this procedure must be clarified. First, the BCRA should use net reserves, not total reserves, to exchange ARS for USD. Reserves that do not belong to the BCRA, such as commercial banks' private deposits that are stored at the BCRA and monetary liabilities in USD, should be subtracted from total reserves. Second, only the monetary base, not broad monetary aggregates such as M1 or M2, should be changed from ARS to USD. Because the proposed change affects the currency used in the country and is not a conversion at a defined rate (such as during convertibility), the absence of USD to exchange for ARS is not an issue (at the correct dollarization conversion ratio). In addition, all legal-tender laws should be abolished, and all contracts should be redenominated in USD at the appropriate conversion rate. We note that the redenomination of contracts would have been much easier if this reform had been implemented during the convertibility period, as Hanke and Schuler suggest. In particular, a conversion rate of one ARS to one USD would have been much more feasible during convertibility than it is now (more on this problem is presented later).

The BCRA is not very transparent regarding the amount of its net reserves.¹² For instance, according to the BCRA's balance sheet, the largest amount of reserves is invested in "deposits to be realized in foreign currency," but the type of financial assets in which the reserves are invested is not specified. Table 2 shows the convertibility rate required to change the monetary base based on net reserves for the past twelve years and the monthly evolution in 2014, assuming that all net reserves are liquid.¹³

A conversion rate of twenty ARS per one USD is required to remove all ARS from the market and replace them with USD. Because the ARS will cease to exist, there will no longer be an exchange rate that can be politically managed to devalue the ARS against the USD, as the BCRA has done frequently since 1935. However, there will be an important one-time differential effect on wealth that occurs between those who hold ARS and those who already hold USD. This effect is a transition

11. See Katz and Shapiro 1985, 1994 and White 1999, chap. 5.

12. Different economists and analysts who closely follow the BCRA have produced different estimates of the net reserves. In this document, we use the value of "net external assets" disclosed by the BCRA in the consolidated financial statements of its balance sheet.

13. This calculation does not account for lost and destroyed paper and coins or for units that are held as collectibles. Thus, the calculation assumes that all pesos are in good physical condition and will be exchanged for USD. According to Schuler and Hanke, approximately 5 percent of European currencies were not exchanged for the new euros in January 2002 (2002, 14–15). If 5 percent of the Argentine monetary base is not exchanged for USD, the conversion rate for April 2014 would be 18.43 rather than 19.4.

Table 2
Convertibility Rate, Argentina, 2002–2013

Year	Base Money (millions of ARS)	Net Reserves (millions of USD)	Convertibility Rate	Month (2014)	Base Money (millions of ARS)	Net Reserves (millions of USD)	Convertibility Rate (%)
2002	29,200	8,700	3.4	January	363,900	14,900	24.4
2003	46,400	11,100	4.2	February	344,800	16,600	20.8
2004	52,500	11,100	4.7	March	349,000	16,400	21.3
2005	54,700	19,700	2.8	April	352,200	18,200	19.4
2006	80,100	26,500	3.0	May	348,900	17,800	19.6
2007	99,100	40,800	2.4				
2008	109,400	35,800	3.1				
2009	122,400	36,700	3.3				
2010	160,400	38,400	4.2				
2011	222,900	34,700	6.4				
2012	307,400	29,200	10.5				
2013	377,200	15,600	24.2				

Note: The convertibility rate is the rate necessary to change the base money into USD (column 1 divided by column 2).
Source: Calculations based on BCRA data obtained from <http://www.bcra.gov.ar/pdfs/contad/Sericanual.xls>.

cost that would have been avoided if the government had implemented dollarization in 2001 rather than opting for a strategy of default and devaluation.

Holders of ARS will receive one USD per twenty ARS, and all contracts will be rewritten at this conversion rate. The USD, however, is quoted at eight ARS per one USD and twelve ARS/USD on the official market and the blue market, respectively. The required devaluation means that debtors will see the amount of their debt fall by 40 percent, and the holders of those debts (e.g., banks) will see the value of their loan assets fall by half. Similarly, holders of deposits in banks will see the value of their deposits fall by 40 percent. These effects imply a significant contractionary effect on the economy (we discuss ways to reduce this contractionary effect in the following section).

The treatment of coins should be different. A mint run by the government should supply local coins of low denomination and should exchange, for instance, a one-dollar bill for one coin with a face value equivalent to one USD (and vice versa).¹⁴ Private mints should also be allowed, and both government-issued and private coins should circulate. The potential private competition to the government mint will provide an incentive to run it efficiently.¹⁵

Monetary Reform II: The Central Bank

With the elimination of the ARS as the national currency, there will no longer be any reason to have a central bank. Even if the BCRA were to retain some functions, its role would no longer be that of a true central bank. Deposits of financial institutions and banks should be returned to their owners.

However, the BCRA has 39 percent of its assets in nontransferable bonds issued by the Treasury (at the end of 2013), which means that it cannot sell these bonds in the market. Accordingly, it is likely that the BCRA will have outstanding financial liabilities after its financial assets are sold. Because the nontransferable bonds must return to the Treasury (the issuer), this debt will be automatically cancelled. Table 3 shows the BCRA's balance sheet as of March 31, 2014. We can use this balance sheet to illustrate how the closure of the BCRA might be accomplished. We are going to assume that the BCRA cancels its USD liabilities at the moment of its closure.

For the purpose of this exercise, we use round numbers. First, using the official exchange rate, we can convert the international reserves from ARS to USD (\$) for a total of \$27 billion. Second, to determine the net reserves, we subtract the following items from the liabilities: (1) current accounts in other currencies (private USD bank deposits held at the BCRA), (2) deposits from national government and

14. Shipping coins from the United States could be expensive relative to their value. Countries that use the USD, such as Ecuador and Panama, have their own locally issued coins.

15. For a historical analysis of private coinage, see Selgin [2008] 2011.

Table 3
BCRA's Balance Sheet as of March 31, 2014

Assets (in thousands of ARS)		Liabilities and Net Equity (in thousands of ARS)	
International Reserves	216,323,259	Monetary Base	349,029,355
• <i>Deposits to be realized in foreign currency</i>	170,112,377	Means of Payment in Other Currencies	2,365,497
• <i>Other reserves</i>	46,210,882	• <i>Pay-off checks in other currencies</i>	160
Government Securities	364,280,567	• <i>Certificates of Deposits for investment</i>	2,365,337
• <i>Nontransferable bills from the national Treasury</i>	343,677,265	Current Accounts in Other Currencies	64,014,274
• <i>Others</i>	20,603,302	Deposits from National Argentine Government and Others	3,446,487
Temporary Advances to the Argentine Government	189,050,000	Other Deposits	166,497
Loans to the Argentine Financial System	4,882,386	International Monetary Fund Special Drawing Rights	3,941,480
Contributions to International Agencies on Behalf of the Argentine Government and Others	27,766,506	Obligations to International Agencies	1,719,503
Other Assets	49,333,454	Securities Issued by the BCRA	177,909,777
		Contra Account to Argentine Government Contributions to International Agencies	17,725,612
		Other Liabilities	121,513,757
Total Assets	851,636,172	Total Liabilities	741,832,239
		Net Equity	109,803,933
		Total Liabilities + Net Equity	851,636,172

Note: Official exchange rate: 8.0098 ARS per 1.0 USD.

Source: Data obtained from BCRA, <http://www.bcra.gov.ar/pdfs/contad/Serieanual.xls>, as of March 31, 2014.

others, (3) certificates of deposit for investment, and (4) multilateral debt.¹⁶ Therefore, if the BCRA returns USD deposits to their owners and cancels its liabilities, the net reserves come to \$16,339 million. With a monetary base of 349 billion ARS, the convertibility ratio is twenty ARS per one USD. One way to acquire these USD is to privatize all public banks, which is also a central part of this proposal

16. The value of the multilateral debt is estimated based on previous balance sheets. This value is included in "other liabilities" and is no longer reported separately on the BCRA's balance sheet.

(discussed more fully later), and to transfer the proceeds of the privatization to the federal government for use in the currency swap.

The government could reduce its debt-to-GDP ratio if this strategy were implemented. In the third quarter of 2013, the Ministry of Economics disclosed a public gross debt of 45.6 percent of GDP. For the sake of simplicity, we assume that the necessary USD are acquired only through debt.¹⁷ However, because government debt held by the BCRA would go back to the Treasury, this debt would cancel itself (because the Treasury would hold its own bonds). There are two important components of government debt: (1) temporary advances to the Argentine government and (2) nontransferable bills from the national Treasury, for a total of 532,727 million ARS. This debt cancellation means that the debt-to-GDP falls to 26 percent. However, the government would still need USD in the short run to take the ARS out of circulation. If the government takes debt in USD to bring the dollarization rate to eight ARS per one USD, the debt-to-GDP ratio becomes 34 percent.¹⁸

The remainder of the balance sheet still needs to be settled. In thousands of ARS, on the assets side, this operation leaves 82,000 million. On the liabilities side, 321,257 million ARS remain. Net equity has a value of 109,804 million ARS. Thus, assets plus net equity fall short of liabilities by 129,453 million ARS.¹⁹ Adding these liabilities means the debt-to-GDP ratio becomes 38.8 percent. This operation implies a decrease in debt-to-GDP of 6.8 percent.

Other BCRA assets, including buildings, might be reduced as the operations of the BCRA wind down, although the BCRA could keep the physical space necessary to perform clearing and minimum regulatory operations.

The BCRA might be merged with the Superintendency of Financial Institutions and Exchange Bureaus, and its employees might focus on gathering reliable and valuable statistics, ensuring compliance with domestic and international financial regulations, and in the short-run become the clearinghouse for Argentine

17. Another way to close the gap between the convertibility rate and the exchange rate is for the BCRA to transfer its USD liabilities to the Treasury instead of canceling them. This way the convertibility rate falls only to nineteen ARS per one USD.

18. Data from the Ministry of Economics website, http://www.mecon.gob.ar/finanzas/sfinan/?page_id=37. An agreement between Argentina and the Paris Club that involves an extra payment of 3,700 million USD has not yet been updated in the ministry's report. Taking this increase in debt into account has a negligible effect on the debt ratio; it would be 32 percent instead of 31.8 percent. Note that the Argentine government must still "recognize" other debts, such as delayed retirement transfers (which has been ordered by the courts but not yet executed by the government). In addition, at the moment the U.S. litigation between Argentina and holdouts of the debt restructuring after the 2001 crisis has ended with a negative ruling for Argentina, and negotiations between the parties are in place to define the means of payment. If Argentina refuses to pay to the "holdouts" of the debt swap, it will again fall into default. Future trials of other holders of same bonds can initiate legal action against Argentina as well as further increasing the amount of foreign debt.

19. The difference between the contributions to international agencies on behalf of the Argentine government (assets) and the contra account to the Argentine government contributions to international agencies (liabilities) can be put into the net equity. For the purpose of this exercise, this adjustment does not change the results.

commercial banks. However, the BCRA will definitely cease to conduct monetary policy.

With the elimination of the BCRA's central-bank powers, all regulations in the exchange-rate market should be abolished immediately. Argentina should become a free-currency country where contracts can be set in any currency agreed upon by the parties and savers can store value in any currency they choose, even if the government continues to use the USD as its currency of choice to collect taxes. Firms should be allowed to send profits to their headquarters, and importers should be permitted to buy all intermediate and final goods from abroad if doing so helps them to run their businesses more efficiently.

Monetary Reform III: Privatizing Public Banks

To avoid the temptation to use any back doors to expand the money supply as a means to finance spending and fiscal deficits, further steps are required. Specifically, public banks should be sold, in particular the Banco de la Nación Argentina (Banco Nación), which is the largest public bank at the national level. This public entity is a major player in the market and is subject to strong political influence. For the same reason, provincial banks should also be sold. Keeping these banks in the sphere of public administration would risk the stability of the economy and financial institutions because both federal and provincial governments have shown a lack of self-control in the use of public banks to finance deficits. Because banks will be allowed to issue banknotes under our proposal, the Banco Nación might become the new de facto central bank if it were to remain a public bank. The competition between the Banco de la Provincia de Buenos Aires and the Banco Nación before the establishment of the BCRA in 1935 is telling.

In addition to improving fiscal responsibility at the federal and provincial levels, the privatization of all public banks will contribute to the reform in two other ways. First, the sales proceeds and tax contributions will supplement Treasury revenues. Second, efficiency and credit allocation will improve once the banks move out of the public sphere and become private competitors in the market. Some of these banks, such as the Banco Nación and the Banco de la Provincia, participate extensively in the market. Thus, the benefits of improved efficiency would not be trivial.

The government does not need to own banks to run social programs. Social initiatives can be channeled through the Treasury, the tax revenue agency, a social bureau in the government, or nongovernment organizations. Benefit recipients could receive funds at the private bank of their choice.

Similarly, the reform should not only close the BCRA but also explicitly prohibit regional governments from issuing their own currency. Strict limits are necessary at the provincial level because it is unlikely that the provinces would manage

their own currencies any better than the BCRA has done. However, if this is not feasible, and provinces issue their own currencies, these currencies will likely have a limited (and perhaps temporary) circulation as long as the USD (or the market's currency of choice) is valued higher than the provincial government currencies.

Monetary Reform IV: The Banking Sector

Banks should be allowed to issue their own convertible notes. Although this practice may appear strange to the Argentine economy, it is a well-known and documented phenomenon in economic history and is still practiced in some countries. Before the twentieth century, most countries had commercial banks that issued their own banknotes. In fact, free-banking countries have historically outperformed countries with central banks in terms of economic and financial stability.²⁰ This proposal can be described as a free-banking system in which the base money comprises fiat currencies, such as the USD, rather than gold.

There remains some confusion regarding the Law of National Guaranteed Banks in Argentina, which was in force between 1887 and 1890. This period is mistakenly described as “free banking,” and because the experiment concluded with the Baring Crisis of 1890, it may lead to the notion that a free-banking system is unstable. However, historical evidence regarding free-banking systems contradicts this conclusion. Moreover, the Law of National Guaranteed Banks was not a free-banking system, nor was the system in the “U.S. free-banking era” that inspired the Argentine regime (with the narrow exception of the Suffolk System in place between 1825 and 1858).²¹ The Law of National Guaranteed Banks was an arrangement through which the national government used commercial banks to issue foreign debt. It was not the banks' instability that triggered the crisis, but the national government's reluctance to pay the bonds held by the guaranteed banks as collateral. This reluctance affected the guaranteed banks' solvency and triggered the Baring Crisis of 1890.²²

With respect to the “free-banking era” in the United States, two particular regulations stand out.²³ First, banks were not allowed to open branches across state lines. The result was a large number of small banks that were unable to diversify risk.

20. See Dowd 1988, 1990, 1992, [1993] 1996, 2001; Selgin 1988, 2000, 2001, [1996] 2002, 2010a, 2010b, 2011; Selgin and White 1988, 1997; Smith [1936] 1990; Krozner 1995; White [1984] 1995, 2003, 2011, 2014; Dwyer 1996; Briones and Rockoff 2005; Laidler 2005–2006; Sechrest [1993] 2008; Cachanosky 2010; Fink 2013; Zegarra 2013. Note also that the central banks' failure to overcome the inherent instability of financial markets was due to financial problems that originated either in the banks' regulations or in fiscal deficits. See Dowd 1990 and Smith [1936] 1990.

21. For the U.S. free-banking era, see Selgin 1988, 12–15, and Dowd 1992, chap. 11.

22. For a more detailed discussion, see Cortés Conde 1989 and Cachanosky 2012.

23. The system in the United States was under too much regulation for free banking to be a fair representation (regardless of the “free-banking” laws in place at the time). For a more detailed discussion about banking in the United States, see Dowd 1992, chap. 11; Selgin and White 1994; Dwyer 1996.

For instance, a bank operating in a town where mining activity was the primary economic market force had no option but to allocate most of its investments to the mining industry, thereby tying its fate to a single economic activity in a single geographical location. Second, state-chartered banks were required to back their notes with state-issued bonds (which were presumed to be low risk). This requirement meant that the money supply could not adjust to cyclical changes in money demand (e.g., due to the agricultural cycle), which led to the bank crises of the late nineteenth century and triggered financial distress when multiple states were unable to continue bond payments. Countries that experienced freer “free-banking eras” performed better than the United States, where regulation was both abundant and inconvenient.²⁴

There are two ways that bank-issued convertible banknotes can contribute to financial and macroeconomic stability: the role of reserves and seigniorage income. Bank reserves play an important role in signaling banks when credit should be expanded (or contracted) to achieve monetary equilibrium in the market. When banks have more reserves than they think is necessary, they expand credit by issuing more banknotes. If banks have fewer reserves than they consider prudent, they take convertible banknotes out of circulation. As banks compete with one another, reserves leave less efficient banks and accumulate in more efficient banks. The elimination of the ARS and the BCRA will bring confidence to the market and encourage citizens to return hoarded reserves to the banks, which will in turn expand banks’ reserves and contribute to the development of a healthy credit market.²⁵

In addition, the issuance of convertible banknotes will contribute to money-supply elasticity, which is a necessary feature of monetary equilibrium and financial stability. The presence of convertible banknotes frees the central bank from the responsibility to correctly adjust the money supply and instead leaves this mechanism to a competitive and more efficient market. Furthermore, with a central bank, no competitive replacement exists if the central bank makes poor decisions regarding monetary policy. In contrast, historical studies show that in a competitive market of note issuers, banks that manage reserves inefficiently lose market share to more efficient banks, thereby improving the overall efficiency of the financial markets.

24. For a comparison between the United States and Canada, see Selgin 2010a, 493–95. We note that there were no bank failures during the Great Depression in Canada despite the absence of a central bank there until the mid-1930s. In addition, the reason that Canada founded its central bank had more to do with political motivations and ideology (the idea that a central bank is necessary) than with the inherent instability of the banking system.

25. A proposed return to the gold standard still has some adherents. However, even if the gold standard has more merit than is typically assumed, this system is not a viable option for the monetary reform in Argentina. A system based on the gold standard requires gold to be an international currency, which is no longer the case. Instead, the USD currently plays the role of international currency. Therefore, a unilateral return to the gold standard by Argentina would fail to achieve the monetary stability that was once provided by this system. Gold may still perform as a store of value, but it is no longer a medium of exchange. Because Argentina would be the only country with this system, there would be no international clearing of gold, which is a fundamental mechanism required by the gold standard system. See White 1999, 2008, 2012.

If there is any role for the BCRA to play in the short run, it is as the first efficient clearinghouse in the market because the BCRA already has accounts for bank operations in Argentina. However, nothing prevents the development of private clearinghouse arrangements, which history shows was a common practice in free-banking systems. The clearinghouse also works as a quality check for member banks. Historically, only banks with a certain level of efficiency were allowed to connect to the clearing network with other member banks. There is no guarantee that an Argentine public entity could perform clearinghouse activities better than the private sector, which has a genuine interest in separating efficient from inefficient banks. If banks prefer to run their own clearinghouse, they should be allowed to do so, and competition will motivate improvements in clearinghouse services.

In addition, the issuance of convertible banknotes can become a profitable line of business for banks. Banks in Scotland, Northern Ireland, and Hong Kong currently issue their own banknotes,²⁶ and the total value of private banknotes in circulation has increased in each of these countries in recent years. According to Thomas Hogan (2012), 95 percent of the notes in circulation in Scotland are issued by private banks, and the British Treasury estimates that the business of issuing private banknotes in Scotland and Northern Ireland yielded total earnings of \$145 million in 2005.

Accordingly, there are potential profits for banks that issue their own banknotes, which makes the issuance of banknotes a profit opportunity rather than a cost of doing business. In the short run, these profits will contribute to bank earnings and financial solvency. In the long run, they will translate into better interest rates for consumers and enhanced banking services as banks compete with one another for customers.²⁷ Allowing banks to issue their own banknotes also means that the value of seigniorage, which is now in the hands of the Argentine government, will be available to residents and domestic banks rather than to the U.S. Federal Reserve.

Banks must overcome a pragmatic barrier also, however. In the case of the gold standard, there is a practical reason for using banknotes rather than gold in specie: it is easier to carry and use banknotes than gold itself. In our proposal, banks will have to invest in measures to incentivize clients to use their banknotes rather than USD notes. Selgin offers some suggestions for overcoming this problem (1988, chap. 11). Banks can use discounts, benefits, cash-back rewards, and better interest rates, to incentivize their clients to use private banknotes rather than USD notes. Banks in Argentina can also provide better-quality banknotes than the used and worn-out USD notes that currently circulate in Argentina. Private notes

26. Banks that are currently allowed to issue private banknotes are the Bank of Scotland, the Royal Bank of Scotland, and the Clydesdale Bank in Scotland; the Bank of Ireland, First Trust Bank, Northern Banks, and Ulster Bank in Northern Ireland; and the Hong Kong Shanghai Banking Corporation, Standard Chartered Bank, and the Bank of China in Hong Kong.

27. See Hogan 2012, appendix A, for a model to estimate profits from private banknotes.

can be written in Spanish and bear a design that is more palatable to the Argentine citizenship than the design on the USD note—for instance, featuring famous soccer players, artists, and national parks.

The issuance of convertible banknotes should not be mandatory for all banks, however. Small banks may be better off using other banks' notes rather than issuing their own; this was a common practice in many free-banking systems. Smaller banks can also use USD notes or form a consortium to issue banknotes jointly.

Monetary Reform V: Other Issues

Currency Competition. As in Friedrich Hayek's ([1976] 2007) currency competition, this reform allows banks to issue their own fiat currency. Although there is not enough historical evidence regarding competition among banks in the issuance of fiat currencies to draw a solid conclusion about how such a scenario would develop, fiat currencies are possible under this proposal if banks find that the issuance of fiat currencies is more profitable than the issuance of convertible banknotes against the USD or other fiat currencies.

Nonetheless, it is doubtful that a multiplicity of fiat currencies will emerge under the proposed reform. With convertible banknotes, all issuers share the same unit of account (for instance, the USD), which avoids problems relating to a multiplicity of exchange rates. However, in the case of currency competition, each privately issued fiat currency is its own unit of account. In addition, a banknote is a contract of debt from the bank to the client and cannot be ignored without legal consequences. On the contrary, a bank that issues a fiat currency promises only to keep the purchasing power stable. However, if the bank ignores its promise after deposits are collected, there is no legal breach on the bank's part.²⁸

Accordingly, we expect that even if currency competition is a possibility, customers would choose convertible banknotes to keep their deposits safe, and banks would choose them to signal their commitment to clients.

No Need for Constitutional Reform. The original Argentine Constitution was written in 1853, when the issuance of banknotes by private banks was a common practice around the world. There is no requirement in the original Constitution that the Argentine currency *must* be provided by a central bank, and multiple modifications of the Constitution have left this characteristic intact. Article 75, item 6, gives Congress the power to establish and regulate a federal bank *as well as other* national banks with the power to issue currency.²⁹ Item 11 of the same article states that Congress has the power to coin money, fix its value, and fix the value

28. See White 1999, chap. 12; Nash 2002; Endres 2009; Luther 2011.

29. Constitución de la Nación Argentina (CN), Artículo 75.6: "Establecer y reglamentar un banco federal con facultad de emitir moneda, *así como otros* bancos nacionales."

of foreign monies, but it does not state that Congress *must* coin money.³⁰ Furthermore, Article 126 states clearly that Congress has the power to authorize the provinces to issue currency and to grant charters to issuer banks.³¹ The Constitution thus presents no impediment to the proposed reform. In addition, the Law of Financial Entities does not prohibit banks' issuance of banknotes.³²

Article 30 of the BCRA's Carta Orgánica states that the central bank is the only entity authorized to issue currency. Because the Carta Orgánica would lose validity the moment the BCRA is closed, it is not an impediment to the proposed reform.

Responses to Some Objections to Flexible Dollarization

Dollarization Requires Argentina to Resign Its Currency Sovereignty

One of the first and most common objections to any monetary policy that would constrain the BCRA's power to intervene in the market is that Argentina should not resign its national currency sovereignty.³³ This argument is not economic but political or nationalistic; it is based on "national sovereignty" and not on economic efficiency. The notion that a true sovereign nation has its own currency is what drives this objection. However, there is no reason to conflate national sovereignty with a national currency (which is an instrument, not a national symbol). In fact, economic history shows that national currencies are a modern phenomenon and not a distinctive characteristic of national independence.

Until the de facto end of the gold standard during World War I, there were no national currencies. The unit of account and ultimate means of exchange was gold, which was an international commodity with decentralized production that many countries used as a shared currency. Under the gold standard, central banks issued IOUs or convertible banknotes. These banknotes were money substitutes,

30. CN, Artículo 75.11: "*Hacer* sellar moneda, fijar su valor y el de las extranjeras; y adoptar un sistema uniforme de pesos y medidas para toda la Nación."

31. CN, Artículo 126: "Las provincias no ejercen el poder delegado a la Nación. No pueden celebrar tratados parciales de carácter político; ni expedir leyes sobre comercio, o navegación interior o exterior; ni establecer aduanas provinciales; *ni acuñar moneda*; ni establecer bancos con facultad de emitir billetes, *sin autorización del Congreso Federal*; ni dictar los Códigos Civil, Comercial, Penal y de Minería, después que el Congreso los haya sancionado; ni dictar especialmente leyes sobre ciudadanía y naturalización, bancarrotas, falsificación de moneda o documentos del Estado; ni establecer derechos de tonelaje; ni armar buques de guerra o levantar ejércitos, salvo el caso de invasión exterior o de un peligro tan inminente que no admita dilación dando luego cuenta al Gobierno federal; ni nombrar o recibir agentes extranjeros."

32. For the Ley de Entidades Financieras, see <http://www.infoleg.gov.ar/infolegInternet/anexos/15000-19999/16071/txact.htm>.

33. In this section, we lay out some of the objections raised to Hanke and Schuler's proposal (with similar argumentation), and we add some potential objections in our update of their proposal.

not high-powered money or base money, just as a check is a substitute for the funds in a checking account. Countries under the gold standard were no less sovereign than they are today. However, the gold standard did prevent governments from printing money to finance fiscal deficits. This constraint did not reflect a lack of national sovereignty but represented an institutional check on the size of the government. A sovereign nation must impose efficient limits on the power of the state.

Today, it is not difficult to find dollarized countries, including Ecuador and Panama, that are full sovereign countries. In fact, Panama suffered to a lesser extent than many other countries during the 2008 crisis despite the lack of a central bank to “manage external shocks.” Countries in the Eurozone have adopted “euro dollarization,” but no one questions their independence as countries. Even if it is true that the European Central Bank does not belong to any country in particular (unlike the U.S. Federal Reserve), it is also true that no Eurozone country has the autonomy to conduct its own monetary policy.³⁴ In fact, it is easier (more “sovereign”) to unilaterally enter into and exit from dollarization than it is to adopt a monetary-union regime that requires agreements between members.

Our proposal moves the issuance of banknotes from a government monopoly to private banks operating within Argentina. This shift means that domestically issued currency would still be present in the form of privately issued banknotes. In this sense, there is no loss of sovereignty. Moreover, a country is sovereign because its domestic arrangements are not constrained by other countries and it capably protects the freedom and well-being of its citizens, not because it has its own currency.

The relevant issues here are the true identity and intentions of the purported “sovereign.” The real sovereign is the people, not the government. A national currency that goes against its citizens’ freedom and well-being is more appropriately described as an “antisovereign” scheme. Our proposal actually returns monetary sovereignty to its original holders, the people, and takes it away from a government that has consistently damaged citizens’ savings and the ARS’s purchasing power and has limited citizens’ freedom to use other currencies. A country whose citizens do not have the freedom to choose the currency of their savings is, after all, a country with a questionable type of monetary sovereignty.

Optimum Currency Area

Another possible objection might be that Argentina does not belong to the USD optimum-currency area, and the costs of joining the USD are higher than the benefits. There are two reasons why this argument is weak. First, most studies that attempt to define optimum-currency areas start by defining the costs and benefits for

34. Eurozone countries also have their own local coins with unique local markings. These coins can be used freely in any country in the Eurozone.

consumers rather than letting consumers' preferences define the costs and benefits. As Hanke and Schuler (1999b) argue, if Argentines demand USD, which they clearly do, then for Argentines the USD is a currency area superior to the ARS regardless of the findings of economic studies. Optimum-currency areas are best defined by allowing the market to choose its currency.

Second, nothing in this proposal ties Argentina to the USD. Although we think that going from the ARS to the USD is a likely first step in the changes we propose, residents and banks are free to use any currency they choose. For instance, if the euro becomes a better choice than the USD, nothing forbids the market from moving to the euro.³⁵ We believe that a competitive market with currency competition is a better mechanism for sorting out the best currencies for Argentina than a central government that lacks the interest and conviction required to maintain its own currency.

Argentina Is Too Big for Dollarization

Although Argentina is a larger economy than other dollarized countries, such as Ecuador and Panama, it is not too big for dollarization. In 2006, the size of Argentina's GDP (1.5 percent of U.S. GDP) was similar to that of several U.S. states, including Missouri, Connecticut, Louisiana, and Oregon. If Argentina is too big for dollarization, then many U.S. states should also cease using the USD and issue their own currencies.³⁶

In addition, countries such as Belgium, Greece, Ireland, Portugal, Cyprus, Estonia, and Finland have adopted the euro as their currency, and their relative sizes compared to the Eurozone are similar to Argentina's relative size compared to the United States. In sum, there is no reason to think that Argentina is too big for dollarization.

Currency Overexpansion

It is commonly believed that free banking gives rise to a significant risk of banknote overexpansion, which is essentially the same problem that this proposal seeks to minimize. Any bank that overexpands the circulation of its banknotes, however, will lose reserves through adverse clearing to other banks. Thus, no bank can unilaterally increase the supply of notes without losing reserves. If banks collude to expand in concert, the mean or average reserves in any bank may remain stable but

35. The costs of printing the new currency wouldn't be a factor because USD are printed by the United States. Commercial banks would have to pay for their own notes if they choose to have them, though.

36. For these data, see the Bureau of Economic Analysis, http://bea.gov/newsreleases/regional/gdp_state/gsp_newsrelease.htm, and the World Bank's WDI database, <http://databank.worldbank.org/data/databases.aspx>. There are no reliable data for Argentina's GDP since 2007.

reserve volatility increases. This increased volatility requires banks to increase their respective levels of precautionary reserves to avoid potential bankruptcy, thereby forcing the banks to cease the expansionary behavior (see Selgin 1988, 80–82, and 2001). Therefore, the market provides checks to both unilateral and concerted banknote expansion. Furthermore, the problem of overexpansion is absent from documented historical cases of free banking.

Fraud and Counterfeiting of Banknotes

A fraudulent bank would be a bank that establishes a branch in Argentina with the intention of receiving deposits in USD (or any other fiat currency), issuing banknotes to its customers, and then absconding with the deposits. However, this risk already exists under the present banking regime in Argentina; a bank can open a branch to receive deposits in ARS and then become a fugitive. Fraudulent activities are prevented with efficient policing, not restrictive banking policies. After the BCRA's decommission as a central bank, it might assume an oversight role in the banking industry and thereby ensure that this type of fraudulent activity does not occur. In any case, this problem is not an issue in other countries where banks are allowed to issue their own banknotes.

In addition, studies of historical cases of free banking do not indicate that counterfeiting has been a problem.³⁷ On the contrary, scattered passages in these studies refer to the relative lack of counterfeit banknotes in Scotland and England. Even today, counterfeiting is not a serious problem in countries where private banknotes are issued because banknotes are likely to return more frequently to the issuer bank in a competitive banking market than they are to return to a central bank that issues irredeemable banknotes, and counterfeiting activity has a negative relationship with the turnover of banknotes.³⁸

What If the USD Becomes an Unstable Currency?

If U.S. monetary policy becomes a problem for Argentina's monetary stability, then nothing stops banks and economic actors from moving away from the USD to any other currency, which is what Argentineans currently try to do every time the ARS becomes unstable. The euro, the British pound, the Brazilian real, the Japanese yen, or any other currency can easily replace the USD. This flexibility is a benefit that is absent from the current system, in which economic agents are not free to keep contracts and savings secure by moving away from the ARS to a more stable currency. It is certainly odd to defend the ARS by arguing that another currency may become unstable.

37. See the sources cited in note 20.

38. For a more specific discussion of these two problems, see Selgin 1988, chap. 10.

Nonetheless, lack of stability is an understandable concern given the monetary policy conducted by the U.S. Federal Reserve since the 2008 crisis. However, this proposal does not deprive Argentineans of the option to use other currencies; rather, it gives them more opportunities and freedom to diversify currency risk by changing their currency of choice at any time.

A Lender of Last Resort

It may be argued that there would be no lender of last resort under this proposal. However, this is not exactly the case. Although there would be no *Argentinean central bank as lender of last resort*, nothing stops banks from going to other banks or to international markets to acquire loans.

The precise definition of the term *lender of last resort* should be clarified here: it can refer either to a bank that lends to other banks under any circumstances or to a bank that lends to another bank if the recipient institution is solvent but illiquid.

A lender of last resort that does not distinguish between solvent and insolvent banks fails to add efficiency to the system because it rewards inefficiency. It also promotes problems associated with moral hazard. A lender of last resort that lends to banks at a premium rate, as in Bagehot's rule, is a lender of last resort that is actually trying to mimic the market, which would perform a credit check before lending to any bank in need.³⁹ A lender of last resort like this is unnecessary because the market already provides this type of service.

International Competitiveness

Because of the convertibility experience during the 1990s, Argentina's policy makers associate the idea of dollarization with low competitiveness in international markets. This association is inaccurate for two reasons. First, as discussed earlier, Argentina was not dollarized in the 1990s but under a weak currency board. Second, the experience of Hong Kong contradicts this association. Hong Kong has been dollarized since 1983 and remains one of the most competitive economies in the world despite its small size and lack of natural resources. In contrast, Argentina possesses abundant geographical space and natural resources but has a weak and uncompetitive industry because of the lack of market-friendly regulations and institutions.

The elimination of the ARS will mean that the exchange rate can no longer be used to produce "artificial competitiveness" for exporters. Sustainable competitiveness is the outcome of a healthy and growing economy with good transportation, energy, and communication infrastructures. Competitiveness also depends on

39. Bagehot's rule states that the lender of last resort should lend to banks at a premium rate. By doing this, the lender of last resort separates illiquid but solvent banks that are willing to use the discount window from banks that are both illiquid and insolvent.

low and simple taxes, an efficient government that is able to provide law and order in a timely manner, and the absence of regulations that inhibit entrepreneurial activity and creativity. If devaluation and a “competitive exchange rate” were sources of competitiveness, Argentina would be one of the most competitive countries in the world. It obviously is not.

Weak Institutions

To argue that a reform like the one we proposed would not survive because Argentina has weak institutions, meaning that they are easily reformed and abolished by policy makers, is arguably the strongest argument against monetary reform in Argentina. On its own, however, it is applicable to any reform. If any reform can be distorted due to rent seeking or otherwise easily abandoned, then reform of any kind would be futile. But institutional reforms can make it more costly for the political class to influence or ignore formal institutions. For example, with this proposal in place, it would be harder for the government to depreciate its currency at a rate of 50 percent per year as the BCRA has done during its tenure.

Argentina’s institutional weakness has led some economists, such as Jorge Avila (2004), to argue for institutional internationalization. For instance, by signing a free-trade agreement with the United States, Argentina would “force” itself to import better “institutional behavior” from abroad. On the matter of banking, institutional internationalization would require not only the use of an international currency but also the reliance on offshore banks that are under another country’s legal jurisdiction.

Conclusion

In their proposal, Schuler and Hanke state that “Argentina’s choice is not whether to dollarize; it is in which form dollarization will be implemented. Under the current monetary policy or under floating, the economy will continue with its creeping unofficial dollarization because nobody trusts the peso” (2002, 39).

More than ten years later, it seems that Hanke and Schuler were not far off the mark. The increasing number of regulations imposed by the government to restrict access to the USD show that Argentina has followed “creeping unofficial dollarization” despite an apparent perception of ARS stability (until 2007).

Certainly, dollarization is insufficient to solve Argentina’s weak economic performance over the long run, but it is a necessary measure in light of the government’s abuse of the BCRA. A proposal like ours is an important step toward fixing the Argentine economy and constraining a government that cannot help itself to devalue its currency. Furthermore, the core of this proposal, which we describe as “flexible dollarization and free banking,” can be adapted to other countries with troubled currencies.

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