## MONEY AND THE MARKET: WHAT ROLE FOR GOVERNMENT?

#### Kevin Dowd

As communism is at last assigned to its rightful place in the dustbin of history, those who survive it have to come to terms with the task of sorting out the dreadful mess it has left behind. Perhaps the only benefit of having lived through communism is that many of those who have done so have a sound grasp of the dangers of government interference in markets. Such understanding leads naturally to a free-market outlook, and many in the former Soviet empire fully understand that the new order must be a liberal one if they are to have any future worth having. But therein lies an immense problem. We understand that the present situation is a total mess, and we understand that once the transition is made, the new market economy will function smoothly and efficiently, and provide the prosperity and economic security that are so desperately needed. The problem, however, is how to get from here to there, and on that issue we are all to a greater or lesser extent flying by the seats of our pants. We understand reasonably well how healthy free-market economies work, but nursing a chronically sick economy to health is a far more difficult problem that none of us is well equipped to handle, and the problem will not wait until we feel we are ready for it. An immense chasm lies between the present mess here and economic health over there, and we need to think carefully about the transition if the countries of the former Soviet bloc are to avoid falling in it as they attempt to make

Were we dealing with a particular industry, the bakery industry, say, the solution would be relatively straightforward. We would first

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change the legal framework to allow private bakers to set up and then grow. They would quickly erode the market share of the state bakery corporation, and at some point we would simply abolish the latter and sell off its assets for whatever we could get. There would be some adjustment difficulties, of course, but on the whole the reform should go through without our losing too much sleep about it. Reforming the monetary system and the banking industry is less straightforward, and we need to tread more carefully. We could—and should—reform the legal framework to allow private bankers to set up and compete, but we cannot simply expect them to produce new brands of money in the same way that private bakers would produce new brands of bread, and then abolish the state bank and forget about it.

Money, or to be precise, the unit of account, is different from bread in a fundamental respect that demands that we acknowledge it.1 There is no reason to believe that the consumption of bread generates externalities, but we cannot say the same about the use of a particular unit of account. A unit of account is a social convention, like a language, and its utility to a user depends to a considerable extent on how many others use it as well. If one more person decides to use a particular unit of account, his decision generates benefits to those who already use it—benefits that have no obvious analog in our earlier bakery example. A unit of account is like a telephone, the utility of which depends on how many others belong to the same unit of account or telephone network. The problem, from our point of view, is that if the utility of a particular unit of account depends on how many others also use it, then an individual's decision whether to stay with an existing unit or switch to using another will depend on what he thinks the others will do, and each individual of course faces the same decision. This element of strategic interdependence explains why it has proved so difficult in the past to induce spontaneous shifts away from badly managed units of account to alternatives with demonstrably superior risk and return characteristics. We might all appreciate that the existing unit of account is performing badly, and

<sup>1</sup>The text should not be misunderstood. It states that the unit of account is different in a particular, albeit important, way because of network economies. It does *not* suggest—and I would vehemently deny—that *currency* is subject to the same network economies as the unit of account. The issue of currency denominated in a particular unit of account is in many respects much like the bakery discussed in the text, and one would expect major benefits from it. It is the provision of the unit of account that is different. Nor should the text be interpreted as implying that the unit of account is different from conventional economic goods in a way that justifies permanent government involvement in its provision. The free banking system described later in the text should make clear that it is not, and the only reason for having any state involvement at all in the interim is to clear up the mess previously caused by the government itself.

we might each prefer that we all switched over to use some other, but it may not be rational for any of us to switch unless we can be confident that at least a certain number of others will also switch with us.

The optimal strategy for each individual is then to wait for others to take the chance and switch first, and switch himself only when the number of those who have already switched has reached a critical level. Everyone of course adopts much the same strategy, the critical mass is never reached, and the result is that no one ever switches. Everyone then continues to use a unit of account that no one really wants, and that despite the fact that everyone may be perfectly free to switch over to demonstrably superior alternatives. Offering a new unit of account is not the same as offering a new loaf of bread producing better bread presumably suffices to win over those who currently obtain theirs from the state, but offering a better unit of account does not. Simply allowing agents to use an alternative unit of account is not enough to get them to adopt it; something more is required than the introduction of new units of account or the abolition of legal restrictions against competing ones.<sup>2</sup> What is needed is a reform package that takes account of these network factors, but that also allows the maximum possible role for the market forces on which a successful monetary and banking system depends.3

## Stabilizing the Value of Currency

## The Need for Immediate Monetary Stabilization

Perhaps the most urgent need in many countries in the former Soviet empire is to end inflation and stabilize the value of the currency. If the best way to destroy the capitalist system is to "debauch the currency," as Lenin reportedly said (Keynes 1919, p. 77), it is also true that one can never hope to establish a market economy on a sound basis without ensuring that it has a stable currency. Inflation injects "noise" into the relative price signals that

<sup>&</sup>lt;sup>2</sup>Again, to anticipate any misunderstanding, let me state that I fully support the removal of legal restrictions on competing private currencies, and I have nothing against the introduction of new units of account. However, it seems to me that advocates of new currencies or currency competition have never come to terms with network factors, and the failure to do so would appear to be an important reason why so many (otherwise relatively) market-friendly economists have been so lukewarm about competing currencies (see Dowd and Greenaway 1993).

<sup>&</sup>lt;sup>3</sup>There is no point reiterating here the arguments for free banking that are covered in detail elsewhere. The interested reader might take a look at White (1984, 1989), Dowd (1989), Glasner (1989), or Selgin (1988b).

markets give out to guide resource allocation decisions, and distorted price signals lead markets to malfunction and, in some cases, to break down completely.

Damaging as inflation is, both economic theory and experience indicate that it is relatively simple to stop it. It can be stopped by a monetary reform that imposes some discipline on the issue of money and reins in the excessive monetary growth that is at least the proximate cause of inflation. One way to do so would be to impose a monetary growth rule on the central bank, but a better solution is to make the currency convertible. The price of the currency would then be fixed against something else, and with the price fixed, the issuer(s) would have no control over the quantity. The quantity in circulation would consequently be determined by the demand to hold it, and any amounts in excess of that demand would be returned to the issuer(s) for redemption. The price level would then be determined by the relative price of the "anchor"—the commodity or asset whose nominal price is fixed—against goods and services in general, and the trick is to choose an anchor that would generate a stable nominal price level by having a stable relative price against everything else.

In the past, such monetary reforms usually involved the reestablishment of the gold standard, and were remarkably successful. The historical evidence clearly indicates credible reforms to make currencies convertible can eliminate even hyperinflation, and can eliminate it very rapidly indeed. In the early 1920s, most of Eastern and Central Europe was ravaged by inflation. Germany, Austria, Hungary, and Poland—all countries then suffering from hyperinflation—implemented radical monetary reforms that ended their inflations within a short period of time (Sargent (1986, p. 115). These reforms reestablished the gold standard and reinforced the credibility of the commitment to peg the price of gold by limiting or prohibiting the government's right to borrow from the banking system. In each case the inflation was apparently over well within a month, and in several cases virtually overnight (see Bresciani-Turroni 1937, p. 334).

The same period also saw more moderate inflations cured by similar reforms in France in 1926 and Czechoslovakia in 1919. In both countries inflation stopped very rapidly once a credible monetary reform program was announced, and the key elements in each

<sup>&</sup>lt;sup>4</sup>Convertibility is superior to a Friedman-type monetary rule in various respects. It has a far better track record; it has an automaticity that the monetary rule lacks, and therefore avoids the public choice and other problems of discretionary management; and it avoids the slippage between target and performance that can occur when the meanings of monetary aggregates change, and which in practice has plagued monetary rules whenever they have been tried.

case were the restoration of the gold standard and the adoption of legal restrictions against government borrowing from the banking system (see Sargent 1986).<sup>5</sup>

### A Currency Board to Stabilize the Value of the Currency

What is required, then, are monetary stabilization programs that can be implemented quickly and easily. An attractive option is to set up a currency board as suggested recently by a number of writers. A currency board is an institution that issues and buys back the domestic currency on demand at a fixed price in terms of some foreign currency, but that also observes a reserve ratio so high that the currency it issues can be considered almost perfectly sound. The board's sole function is to satisfy the public's demand for currency. One can think of the board as providing hand-to-hand currency and, perhaps, redemption media to be used by the commercial banking system, but it would not issue deposits as such.

Currency boards typically hold reasonably safe assets that are dominated in the currency to which the domestic currency is pegged, but that also bear some pecuniary return (for example, treasury bills). The reserve ratio is usually over 100 percent in case the prices of these assets should fall (as when foreign interest rates rise) and inflict losses on their holders. The excess over 100 percent, therefore, provides a cushion to keep the board's net worth positive should it suffer any losses on its assets. The board would make profits equal to the difference between the net earnings on those assets and its own operating expenses, and experience suggests the latter should be about 1 percent of the value of assets (Hanke and Schuler 1991a, p. 4). Any profits above the level needed to maintain the board's reserve ratio could be remitted to the government as payment for the board's assets, which the government itself would have to provide

<sup>5</sup>The evidence also indicates that these reforms were not followed by the chronic unemployment problems that Phillips-curve analysis would predict. In Poland and Germany, for instance, unemployment actually *fell* following the monetary stabilization (Sargent 1986, chap. 3), and so too did unemployment in France after 1926. There are apparently no figures available for Hungary or Czechoslovakia, and the only country where unemployment actually rose is Austria, where it was rising already. It is hard to extrapolate from these experiences to predict what would happen to unemployment if comparable reforms were carried out today in the former Soviet bloc. My own guess is they would be followed by relatively rapid recovery once markets could start operating properly—remember Germany in 1948—but no one can be sure, and it seems to me that these economies are so messed up anyway that their finance ministers have no real option but to press ahead and be dammed.

<sup>6</sup>See, for example, Carrington (1992); Hanke and Schuler (1991a, 1991b); Schuler and Selgin (1990); and Schuler, Selgin, and Sinkey (1991).

when it established the board.<sup>7</sup> The board would need to be safeguarded in various ways against the danger of political depredation.<sup>8</sup> It would therefore own the assets it holds for as long as it existed, and most of those assets would be held abroad where they would be safe from plunder. The board would also be legally independent, perhaps with a legal seat in another country, and with its directors serving staggered terms and a number of them being foreign nationals appointed by foreign institutions (for example, specified commercial banks) that would not be accountable to the domestic government.<sup>9</sup> The currency could be protected further by prohibiting the government from borrowing from the domestic financial system.<sup>10</sup> The appropriate peg for the domestic currency would be a strong Western currency, and perhaps the best one for any country in the former Soviet bloc would be the Deutsche mark.<sup>11</sup>

Currency boards are ideal for governments that seek a quick and effective means of establishing the stable monetary conditions that are essential for economic recovery. With a currency board, there is virtually no room for discretion, because the monetary system operates more or less automatically. Currency boards are independent of government and are well protected against the danger of political interference. The currency they issue is fully secured by

<sup>7</sup>From the government's point of view, the main expense of the system would therefore be the operating cost of the board—the government would provide the board with its assets, but would still get the return it would have obtained from them minus the operating cost of around 1 percent. Such costs can hardly be considered excessive, especially in view of the monetary stabilization benefits they would bring. The only problem in practice might then be for the government to obtain the foreign securities to set up the currency board in the first place, but one would imagine that a credible commitment to embark on such a reform would produce increased confidence on which the government could rely for loans of the securities it would need. This of course would be especially so if the monetary and banking reforms were carried out in conjunction with privatization, price liberalization, and fiscal reforms to revive economic life and put government finances on a sound basis. For any government committed to genuine reform, the currency board would be pretty much self-financing.

<sup>8</sup>Adequate safeguards are essential if the reform is to be credible, and credibility is critical if private agents are to build the new regime into their expectations of the future and adjust in the least costly way. If private-sector agents do not believe the reform will last, they will continue to anticipate ongoing inflation and act accordingly, and many of the benefits of the reform would be lost. Agents would still be reluctant to commit themselves for the future, they would be reluctant to supply goods to the market because they anticipated further price rises, they would still have difficulty reading price signals, and so on. A reform that lacked credibility might still be able to deliver price stability, or something like it—if it managed to last—but it would do so at a potentially much higher cost.

<sup>9</sup> For more details on how the currency board might operate, see Schuler, Selgin, and Sinkey (1991) and Hanke and Schuler (1991a, 1991b). The latter also provide a draft law for Bulgaria on pages 28–29 that could provide the basis for legislation anywhere else. My only reservations—

sound foreign assets and is effectively as secure as the foreign currency to which it is anchored. Currency boards are very easy to establish—all that is required is that the legislation be passed to set up the board, the directors be appointed, the right to issue currency be transferred to the board from the existing government bank of issue, and the board be provided with its assets by the government.<sup>12</sup> In sum, currency boards can be established very quickly if there is the political will to do so. They also have a proven track record, and have worked well even under the most unstable political conditions (see Hanke and Schuler 1991a, p. 5).

### Competition for the Currency Board

Unlike historical currency boards, the one proposed here would have no exclusive right to issue currency. There would be complete freedom to issue currency subject only to laws against the unauthorized copying of the currency issues of others and subject to the commercial law that would provide for the enforcement of legally binding promises, such as the promise to redeem currency on demand. New issuers would therefore be allowed to issue their own currency. But given the network problems already mentioned, it is likely that the only ones that would gain any major acceptance would be those denominated in the existing (and now stabilized) unit of account. Like historical free banking systems, there would be one widely accepted unit (or medium) of account—a role usually performed by a gold-defined unit of account in the past<sup>13</sup>—but there would in time be multiple issuers of media of

though they are important ones—is that the legislation should explicitly eschew any monopolistic privileges on the part of the currency board, and that it should stipulate a sunset clause that would provide for the board to be liquidated when there was no longer any need for it. The reasons for these provisions will become apparent later in the text. <sup>10</sup>Such a provision would prevent the government from running up debts in the domestic currency, and then being tempted to avoid repayment by intervening later to devalue the currency or abolish its convertibility. The historical monetary reforms discussed earlier all incorporated such measures, and it would be most unwise to omit them. Even if later governments turned out to be "well-behaved"—and one cannot assume they would—such measures would nonetheless contribute to the success of the reform by strengthening its credibility.

<sup>&</sup>lt;sup>11</sup>If the country concerned picked the currency of its major Western trading partner, then it would also obtain the benefits of maximizing the stability of its real exchange rate in international trade. The main trading partner of any Eastern European country once it has adjusted to free (?) international trade would be Western Europe, and given the exchange rate bounds of the Exchange Rate Mechanism (ERM), picking the mark would promote real exchange rate stability with the whole European Community (EC). Picking the dollar or the yen instead would stabilize real exchange rates with the United States or Japan, but those gains would be more than offset by the losses from the instability of the real exchange rate vis-à-vis Western Europe.

exchange of one kind or another whose issues would be clearly distinguishable from each other. <sup>14</sup> To gain acceptance, however, any private currency would have to be able to compete with that issued by the currency board, and perhaps the main requirement to be able to do so is that the private currency be regarded as of comparable soundness. Since no one would normally choose any currency with a significant default risk over the virtually default-free currency provided by the currency board, private currency would gain acceptance only once its prospective issuers had established themselves as sound and reputable financial institutions in the domestic economy.

One would imagine that the first commercial banks to make headway with the issue of private currency would be the large foreign banks that are already setting up branches in Central and Eastern Europe and are increasingly well known there. In the course of time domestic banks would also establish themselves, and they too would issue their own currency to compete with that issued by the currency board and the foreign banks. In time one would also expect the commercial banks—domestic or foreign—to out-compete the currency board in the issue of currency. Commercial banks would eventually establish nationwide branching systems, and each branch would take in the currency of other issuers and hand out its own currency over the counter to the public. 15 These banks would be able

<sup>12</sup>One common objection is that these governments may not have the initial assets with which to endow the currency board in the first place, but as noted already, the government can always borrow the necessary assets if its overall reform program is credible. If it lacks the credibility to do that, then its real problem is its own reform program, not its current lack of assets as such, and it will continue to face severe finance constraints until it gets its act together.

<sup>13</sup> In the United States, for instance, the dollar used to be defined as a particular weight of gold. A dollar note was then only a claim to a dollar (that is, the amount of gold just specified), and not a dollar per se. Under the system proposed here, the unit of account would be initially defined for legal purposes as the amount of the foreign currency implied by its exchange rate, but as the text goes on to explain, its legal value would eventually be market-determined.

<sup>14</sup> While this arrangement might sound unfamiliar, it only appears so because we are used to thinking in terms of a single monopoly issuer of currency. Under a typical historical free banking system, on the other hand, each bank took the commodity-defined unit of account—usually some amount of gold—as given, and issued convertible exchange media denominated in that unit of account. There were (external) economies of scale—network economies, to use the term in the text—in the use of the unit of account, but there was no indication of any tendency toward natural monopoly in the provision of financial instruments denominated in that unit of account. The reader is referred to the various case studies of historical free banking collected in Dowd (1992a).

<sup>18</sup>It is in each bank's own interest to replace competitors' currency with its own, so it will always hand out only its own currency over the counter. At the same time, a bank will also accept the currency of other banks (provided they are considered sound) and then return

to use their conveniently situated branches to keep their own currency in circulation, and though it may operate some branches, the currency board would not be well placed to compete because of its own rigid operating rules. (Remember that the board is not designed to compete in this sort of market, and it would lack the incentive and institutional flexibility to do so.)

### The Eventual Need to Liquidate the Board

The time would therefore come when the currency board's market share would fall to negligible levels and the board itself would have no useful further role. The legislation establishing the currency board ought to anticipate this development by incorporating an explicit "sunset clause" that would allow for the automatic closing of the board when it ceased to have any further use. The legislation might say, for example, that the board was to be closed three months after its share of the total currency outstanding over the past two months had fallen to 5 percent. It is important that the board be liquidated and not allowed to continue once it has ceased to serve any useful purpose. The board would not only be redundant, but its rigid institutional structure would generally make it inefficient as an asset manager, and it would be better that it be dissolved so that the resources under its control could be reallocated. Perhaps the best option would be simply to have the board automatically dissolve after its currency share hits the stipulated threshold and have its assets sold off with the proceeds returned to the government.

The main reason for liquidating the currency board is not because it is either useless or inefficient, but because a future government might use it as a platform to establish some form of central banking. The history of currency boards very much bears out this concern. There was (and still is) a tendency to regard currency boards as transitional arrangements between the earlier (relatively) free banking systems that preceded them and the central banking systems that replaced them. A central bank is viewed as necessary to any but the most insignificant of countries, and a central bank, like a national parliament or in many cases a national airline, is regarded almost as a symbol of a country's sovereignty. As a result, virtually all historical currency boards were eventually replaced by central banks, or were transformed into them, and the transition to central banking was considerably eased by the argument that the existence of the currency

it to the issuer. Doing so not only enables it to replace the other banks' currency with its own, but the historical experience suggests that competitive banks would find it in their mutual interest to accept each other's notes and arrange for returns via a formal clearinghouse (see White 1984, Selgin 1988b, and Selgin and White 1987).

board already conceded the government's right to go further if it wished and established a central bank. The money-creation powers of the central bank inevitably invited political interference, and the central bank to a greater or lesser extent always succumbed. Convertibility constraints against the issue of money were gradually relaxed, and eventually abolished altogether, and the central bank was turned into an engine of inflation.

If the new monetary regimes of the old Soviet bloc are to avoid the pitfalls into which their counterparts in the West and elsewhere have fallen, it is very important that their currency boards be only transitional arrangements that result in fully private systems of money and banking with no government presence that could be used to undermine their monetary systems later on.

### The Danger of Imported Monetary Instability

The monetary system by this stage would still have one major weakness: the currency would only be as sound as the foreign currency to which it was tied. Should the issuer of that foreign currency inflate, the domestic currency would have to inflate with it because the issuers would still be committed to maintaining its exchange rate with the inflating foreign currency. This danger to domestic monetary stability should not be underrated. Even the Bundesbank—arguably the best of the major Western central banks in terms of its inflation performance—has a good record only in comparison with that of its counterparts, and its record in absolute terms is actually quite poor judged by the more appropriate yardstick of price-level stability. Nor can one assume that the Bundesbank would be able to maintain even this poor inflation record. The limits to its much-vaunted independence from the German government have become much more apparent in the past couple of years, and the German government is in any case now committed by the Maastricht Treaty to replace the mark with a new common currency by 1999. The common currency is supposedly to have a stable value, but one has good reason to be skeptical that this commitment will be honored. The issuers of most existing currencies are also committed to maintaining their values, but that "commitment" still does not prevent them from inflating their currencies, and there are good reasons in the Western European context to doubt the value of any commitment to price stability. The fact that much of the drive for a European central bank comes from dissatisfaction with the (relatively) conservative policies of the Bundesbank can only imply that the other European monetary authorities want more inflationary policies, and there is the ever-present danger that the financial problems of the EC will lead to it pressuring the "independent" European central bank for cheap loans to be financed by printing money (see Dowd 1990).

## The Value of the Currency Determined on the Market

The solution is to look to the market rather than the political authorities to safeguard the value of money. The political authorities should be allowed only a very temporary power to legislate or otherwise control the value the currency—the power needed to clean up the mess that they or their communist predecessors have created—but denied all powers over the currency once monetary stability has been established. Instead of specifying what the value of the currency should be, except at the beginning, the legal framework would allow the definition of the currency in terms of goods, services, foreign currencies, or whatever to be determined on the market. It might say, for instance, that the value of the ruble is initially so many marks, but private agents would be allowed to use their own "brands" of the currency if they wished to do so. If the currency is the ruble, equal in value to so many marks, they might issue "new" rubles or "superior" rubles, or whatever they choose to call them, equal in value to anything they want. 16 They could issue them with values pegged to pounds, dollars, the CPI, or anything else, subject only to the constraints that they must make their own brands distinguishable from existing ones, and they must not violate existing contracts. Let us now consider each of these requirements in turn and their implications for the behavior of the banks.

The first requirement—that private-money producers differentiate their brands—prevents banks from issuing an inferior currency (for example, one pegged to something that generates more inflation, or perhaps one not pegged to anything at all) that they can pass off as if it were the same as the existing brand(s). This requirement is important if issuers are to have sufficient incentive to protect their

<sup>16</sup>The monetary system would therefore be an indirectly convertible one in which the banks redeemed their currency with a redemption medium that was something other than the good (or basket of goods) whose nominal price is held fixed. Indirectly convertible systems are perfectly feasible, but the reader is referred elsewhere to more detailed discussions of how they work (see, for example, Coats 1989, Dowd 1991b, and Yeager and Woolsey 1991). If the objective is to maximize price-level stability, the best anchor whose price should be stabilized is one based primarily on the basket of commodities and services of which the CPI represents the price. This anchor would have an almost perfect correlation with the CPI itself, so stabilizing its nominal price should yield a very stable price level (see especially Dowd 1992b). For our purposes in the text, it merely suffices to establish that the preferences of currency holders win out, and if they want price-level stability maximized, then that is what the banks will provide. How the banks do so is then a technicality, albeit a very important one.

currencies, but is really only the same as requiring that brand names be legally distinguishable. If I can produce autos that look like BMWs, say, but are of inferior quality, and I am also allowed to pass them off as if they were genuine BMWs, then my ability to undercut the genuine BMW producer will obviously make it very difficult for him to maintain his quality, and there is a danger of quality standards falling continuously as the two of us fight it out for market share. The solution, of course, is to protect the genuine BMW brand name by penalizing those who use it as a cover to sell a different product. If that is done, car producers can compete on a sound playing field and the public will get the quality of product it demands, and there will be no tendency for competition among producers to lead to falling quality standards. So it is with the currency. If I was allowed to pass off an inferior currency as if it were identical to an existing one, competition among producers would lead to the progressive deterioration of the real value of any guarantees, and the value of the currency would fall to its ultimate marginal cost (about zero) in the competitive hyperinflation scenario sometimes described in the literature (see Friedman 1960, p. 8).

If brand names were protected—if a particular brand of ruble had a particular definition in terms of commodities or something else then anyone who issued exchange media denominated in that brand of rubles would have a legal obligation to maintain their price at the level implied by the commodity definition of that ruble brand. Any issuer who failed to honor his commitment would be in default of contract and open to the appropriate legal penalties, assumed to be high enough to discourage default unless the bank was genuinely insolvent. Once this first requirement was satisfied, different banks would be free to compete with different brands of the existing currency. One bank might offer a brand with a convertibility guarantee chosen to stabilize the price level, while another might offer one that would lead to a small amount of inflation. Each brand would have an implied (expected) price-level path attached to it, but brands would otherwise be similar.<sup>17</sup> Competition for market share would consequently lead banks to converge on the brand—price-level path—most preferred by the public. The path of the price level over time is thus driven by public demand as expressed through the public's willingness to hold different brands of the currency. If the

<sup>&</sup>lt;sup>17</sup>A new brand must have the same value as the old when it is introduced, but it would imply a different rate of price-level change over time. One that did not have the same initial value as the existing brand would be incompatible with its network, and that network would therefore function as an entry barrier against it.

people desire zero inflation, as they probably do,<sup>18</sup> then the banks' competition for market share would lead them to offer the public exchange media denominated in a brand of the currency that implies zero inflation.<sup>19</sup> No other brand of the currency would be able to survive in competition with it, and so one would only observe that one brand in equilibrium. It is the threat that inferior banks might lose their market share to banks offering a superior brand that would keep any individual bank or group of banks in line and compel them to provide the brand the public desire. People would always be able to offer alternative brands, but the only circumstance in which a new brand would out-compete the old is if the old one provided an "inferior" price-level path (that is, one the public did not want).

The other requirement is that issuers honor any legal commitments they have freely entered into. This constraint has several important implications. One, already mentioned, is that a bank that refused to redeem its exchange media when required to do so would be vulnerable to the penalty for breach of contract. It would therefore have considerable incentive to honor its commitment to buy its issues back, and a law of reflux would then operate to ensure that exchange media were roughly compatible with their equilibrium values as implied by the particular brand of the currency.<sup>20</sup> Another implication

<sup>18</sup> Some writers have argued, however, that the public would prefer deflation to price-level stability. Friedman (1969) suggests that the optimal path is a rate of deflation roughly equal to the rate of interest, and Selgin (1988a, 1990) suggests a "productivity norm" by which the price level would move with changes in productivity, and which would therefore fall in the presence of productivity growth. These arguments deserve serious scrutiny, but it seems to me they both ultimately fail. I would refer the reader to Dowd (1991a) for the detailed arguments, but whether those arguments are correct or not is in a sense not particularly important. What is important is that the system delivers an optimal price-level path by catering to currency holders' desires. If I am wrong and Selgin is right, then free banking would deliver an optimal price-level path that would normally involve deflation. If I am right and he and Friedman are wrong, then free banking would deliver an optimal price-level path that would involve price-level stability. Who is right and who is wrong is insignificant—what matters is that we would get the optimal price-level path anyway, whatever that might be.

<sup>16</sup>One counter-argument raised by Jerry Jordan in his discussant's comments is that the public may have no preference for any particular inflation rate, and he points to opinion polls that suggest that members of the public have different preferred inflation rates. I am inclined to the view that people do want zero inflation, or something close to it, and I am skeptical of opinion polls that often ask inappropriate questions and have no safeguards to ensure that people give consistent, economically rational answers. To give but one example, polls typically suggest that the current rate of inflation is too high, but that the public also wants lower interest rates in the short run, which usually requires higher monetary growth and higher inflation in the longer run. Poll preferences are thus normally inconsistent, and I am somewhat sceptical of them.

<sup>20</sup>In effect, any bank would be committed to buy and sell its currency at a fixed price on demand. Any excess supply would therefore come back—hence the term "reflux"—to the is that it would severely restrict banks' ability to change the brand of the currency, and this restriction in turn should further help to promote public confidence that the banks would not introduce gratuitous or harmful currency reforms. Imagine, for the sake of argument, that a bank wished to inflate its currency for some reason, so it announced its intention to replace the existing brand with one that would generate the inflation it desired. It would be immediately constrained by past commitments, of course, and it could not unilaterally change the meaning of the term ruble in pre-existing contracts without exposing itself to lawsuits from creditors who (rightly) considered themselves defrauded. The bank would therefore have to provide its customers with the required advance notice, which could be very long, and to the extent that the latter preferred to stay with the old brand, the bank would either have to offer them business denominated in the old brand, offer them compensation to switch over, or see them go elsewhere. In the first case, the bank would end up having to abandon its plan, or incur the expense of operating on two brands simultaneously; in the second, it would lose out from the cost of compensation; and in the third case it would lose its market share. Any or all of these cases could occur, and the bank would have to pay some penalty in any of them. Even if the bank could maintain its market share by compensating its customers, the very fact that it would have to compensate them because of their preference for the existing brand would put the bank at a competitive disadvantage, and the bank would not be able to maintain the new brand in the longer run. Remember that it is the public's preferences that would be decisive, and not those of the bank(s).

In any case, there is no particular reason to suppose that an individual bank or group of banks would actually prefer inflation even if it could keep its market share at a low or negligible cost. Inflation (or, for that matter, deflation) would add to its own accounting costs even if it was fully predictable. Inflation (or deflation) never is predictable, of course, so the bank would also suffer from the noise and related problems created by its own inflation. These costs might be bearable if inflation generated sufficient benefits to offset them, but the benefits of inflation to the issuer, such as they are, come primarily from "catching out" those who did not anticipate the inflation, and the bank could hardly engineer a "surprise" inflation

issuer for redemption. The only circumstance where the value of a bank's currency could deviate significantly from this level would be where the bank itself failed, but even in that case, we would still expect other banks to pick up the failed bank's market share, and the value of most of the currency stock would still be at the normal equilibrium level.

precisely because it would be constrained by its own past commitments. Those commitments would force it to announce its intentions well in advance, and its announcement would warn off those it hoped to catch off-guard. It turns out, then, that a competitive bank (or group of banks) would almost certainly be unable to engineer any price-level path other than the zero inflation desired by the public, but it is very much doubtful that such a bank would want any other path than zero inflation anyway.

The idea of entrusting the value of the currency to the unfettered market might sound unorthodox, but there is no reason to distrust it, and there is certainly no good reason for preferring to give the task of protecting the currency to the politicians instead. One does not put the predator in charge of the chicken house.

## Banking and Financial Reform

The measures outlined above are necessary but by no means sufficient to establish the foundations of a sound, free banking system. If they are to succeed, they must be underpinned by other reforms that are essential to any well-functioning market economy. Foremost amongst these is the establishment of clearly defined property rights. The bulk of the property currently belonging to the state or its collectives needs to be privatized, and privatized as soon as possible. Those who obtain it must have a clear and unambiguous title to it, and that title must also include the unrestricted freedom to sell, lease, rent, or use property as collateral to obtain loans. The establishment of solid property rights would also allow individuals the wherewithal to start or expand their own businesses, and to pledge their property as security for bank loans. It would therefore promote an entrepreneurial class from which would come much of the demand for bank credit, but it would also give that class the means to obtain that credit. The result would be a growing effective demand for the asset services provided by banks, and profit opportunities for those banks that stepped in to meet that demand.

The banking system itself would need a sound framework of law in which to operate. By and large, banking laws should be governed by the same principles that underscore good commercial law in general. Banks and firms generally need to have well-defined legal identities modeled on Western corporate law, and there need to be clear notions of default and bankruptcy and of the rights and obligations those conditions imply. Entry to the industry should be free and open to all who satisfy certain basic standards. Foreign banks should be free to open and operate on the same terms as domestic banks. Banks should be free to maintain branches wherever they choose. They

should be free to engage in any business they want, including insurance, stock underwriting, real estate, and foreign exchange. They should be free of any legal restrictions regarding the reserves they keep, their capital adequacy, the interest they charge or pay, the loans they make, and the deposits they accept. There should be no government-sponsored lender of last resort to protect the banks, and no official deposit insurance scheme. Such schemes only undermine the banks' incentives to maintain their own financial health, and substitute taxpayers' funds for the equity that the banks should maintain themselves. Finally, like most other major institutions, banks should be required to

publish accurate financial statements frequently. The financial disclosure requirements should be modelled after American and British practice, not after German and Swiss practice that allows banks to keep "hidden" reserves off balance sheets. Stringent disclosure requirements plus the ordinary penalties on fraud should keep embezzlement at an acceptably low level [Schuler, Selgin, and Sinkey 1991, p. 10].

The process of building up the banking system could also be enormously facilitated by foreign banks, and the government should do nothing to discourage them. They would have the advantage of being experienced and already well established in their own countries. They would have their own adjustment problems, of course, but they may well have the initial edge over domestic institutions that would start off with little or no experience, capital, or reputation. A large influx of foreign banks would bring in much-needed bank capital, leading to a more rapid development of the banking system, and a more rapid growth in bank lending. It would also introduce Western banking and financial practices and promote the spread of basic accounting skills, of which all the former Soviet economies are woefully short, and it would give domestic banks clear models from which they could learn good practice more quickly and at less cost than might otherwise be the case.

What applies to banks also applies to foreign firms in general. Foreign direct investment facilitates the rebuilding of the economy's capital structure, promotes the introduction of Western practices, and assists the general shaping up of domestic industry. Domestic firms badly need capital, but there is as yet relatively little of it to be obtained in their own economies and it could take many years before domestic supplies of capital are large enough to meet their demands. Governments should not be afraid to encourage foreigners to invest, and they should resist any xenophobic reactions to foreign "domination" of the economy. The more foreigners who wish to come in and

"buy up" the country, the better.<sup>21</sup> Foreign investment is an important part of the growth process for countries that need more capital than they can generate themselves, and it implies that investors abroad have confidence in the economy and are willing to invest there because they believe its prospects are good.

Foreign direct investment is desirable not just because Western capital is needed to build factories, introduce Western business practices, restore the infrastructure, and so on. A combination of factors—most industries chronically uncompetitive on world markets, relatively little private property that could be sold off to foreigners, few foreign currency reserves, and a desperate need for Western imports of all kinds—means that these countries have no option but to run up large current account deficits, and financing those deficits requires correspondingly large capital account surpluses (that is, net investment from abroad). Significant amounts of foreign investment are therefore essential if consumers are not to go short of the food and other goods they need, and if industry is not to be starved of raw materials and other necessary imports. A liberal approach to foreign investment can thus provide a major boost to accelerate the overall recovery process. Without it, consumers could go short of basic goods for years, industry will be crippled for a long time by financial constraints, and economic recovery will be very painful and very slow.

#### Conclusion

It might be useful to say something about the timing of the various measures discussed here and how they relate to the overall reform process. Two of the reforms suggested—the establishment of a solid foundation of property law and all that that entails, and a monetary stabilization package—are absolutely basic to the whole reform program and should be implemented as quickly as possible. Delaying these reforms will only lead to further economic decline, and until they are attended to, any significant economic recovery will be virtually impossible. As mentioned already, the monetary stabilization legislation should also ensure adequate protection for the currency board it was setting up, and the same legislation should also authorize the complete removal of any remaining controls on foreign exchange or foreign investment and of any restrictions against the use of alternative units of account. The establishment of a sound foundation

<sup>21</sup>Xenophobic reactions to foreign investment are nothing new, but very misguided. As Selgin, Schuler, and Sinkey (1991, p. 17) point out, "For more than a century after independence, British investments in the United States were so large that some Americans feared British economic domination. Nothing of the sort happened; in fact, British investment sped America's rise as the world's greatest industrial nation." America's current generation of Japan bashers would do well to take note.

of commercial and banking law should follow as soon as possible afterwards, and as with property law, legislators could speed up the process by borrowing large chunks of it from successful legislation in the West. If these measures are to be fully effective, however, it is very important that they form part of a coherent overall recovery program that would also involve the privatization of the mass of state property inherited from communist days, the deregulation of prices and wages, and the rationalization of the public sector and its finances. The reform of the monetary and banking system is essential, but it is not sufficient on its own, and it is only when all these measures have been attended to that one can be confident of having laid the foundations for a secure and prosperous market economy.

Despite the needs of the moment, it is very important that those responsible for reform in Eastern Europe resist the temptation to become totally preoccupied with short-term solutions and spare no thought to their longer-term consequences. It goes without saying that the short term must be addressed, but it is also important to lay down sound foundations for the future. In the longer run, economic prosperity does not depend on the choice of particular policies by particular governments so much as on the choice of the institutional structure within which everyone has to work. That choice has to be made now, and it is vital to get it right. As many would-be reformers are all too aware, it is much easier to make the right institutional choice in the first place than try to change it once a mistake has been made and then cast into stone.

In trying to make these decisions, it is also important that reforming governments be discriminating in what they copy from the West, and nowhere more so than in money and banking. The West offers many models that could be usefully copied—many of its legal codes, business practices, and so on—but it is also the source of many mistakes to be avoided, and the biggest of these is the institution of central banking. Central banking in the West has now produced apparently permanent inflation, and while it might make sense to peg former East bloc currencies to a (relatively) strong Western currency as a short-term crutch, in the long run ex-communist countries (ECCs) should aim to do better and put their currencies on a firm, noninflationary basis. The former Soviet countries should also avoid the disastrous mistakes that Western countries have made by other interventions in banking. The worst of these was the establishment of federal deposit insurance in the United States, which has now resulted in the de facto nationalization of much of the U.S. banking industry and in a public finance catastrophe unparalleled in world history.

For all its present problems and immediate dangers, the present state of flux offers many opportunities for worthwhile reform that are unlikely to recur for a very long time. If policymakers in ECCs are wise enough to embark on market-oriented reforms and to avoid the pitfalls into which the West has fallen—in money and banking especially—then there is every chance that the former East bloc countries could not only reach Western standards of prosperity, but in the long run could eventually surpass them.

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## CREDIBILITY, THE MONETARY REGIME, AND ECONOMIC REFORM IN THE FORMER SOVIET UNION

## Peter J. Boettke

I find myself in substantial agreement with Kevin Dowd's (1993) discussion of money and markets in economic reform. His discussion of the network externality problem with the free banking alternative raises the pertinent theoretical question that advocates of free banking must address in order to make their policy solution more attractive to skeptics. On the other hand, his discussion of the failure of monetary growth rules to provide adequate institutional constraints against the public choice problems associated with government discretion logically point to a market-based monetary regime as the only viable solution. In addition, Dowd raises some very interesting questions concerning possible shortcomings of the currency board alternative for reforming the monetary system in the former socialist economies. In particular, Dowd points out that the currency board would have to develop safeguards "against the danger of political depredation." Historically, currency boards have always been an intermediate step on the way to a central banking system.

It is precisely this point, however, that I think Dowd could stress more forcefully. The issue of establishing a binding and credible commitment to sound monetary policy is not a footnote issue, but is perhaps the central issue in monetary reform.

#### The Failure of Perestroika

Perestroika as a policy of economic restructuring and renewal failed miserably. The economic crisis that Mikhail Gorbachev inherited

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 $<sup>^1</sup>$ See Boettke (1993) and Goldman (1991) for a general discussion of the failure of the reform effort from 1985 to 1991.

grew more acute and the political system simply fell apart. In large part, the official debacle of the Soviet system was a necessary precondition for fundamental reform to take place. But, understanding the debacle should still be a priority.

Perestroika failed because it was not attempted. From 1985 to 1991, Gorbachev introduced at least 10 major economic programs under the banner of perestroika, but not a single one was ever implemented. Moreover, even the policies that were introduced represented half-measures and incoherent policies. Most of the Gorbachev reforms were incentive incompatible with the development of the economic forces needed to resurrect the Soviet economy. Gorbachev's efforts, however, failed not only because of the incentive incompatibility of most of the reform decrees, but also because of the adverse reputational effect of constantly shifting and changing the status of reform policies. No one was sure whether a Gorbachev liberal zig today would not become a more repressive zag tomorrow, and as a result nobody had any incentive to invest in the official economy.

Nowhere was this felt as directly as in the monetary system itself. The Gorbachev era was characterized by a flight from the ruble. As the official economy sank deeper, individuals selected out of rubles to engage in exchange. Rubles, for a long time externally inconvertible, increasingly became domestically inconvertible as individuals found it more difficult to purchase goods and services with ruble notes at state stores.<sup>2</sup> Hard currency was sought in the black market to expand the array of choices available to consumers, and complicated barter arrangements emerged to coordinate the plans of economic actors. This unofficial exchange system came to dominate the economic landscape.3 The competitive duality between the official sector and the unofficial sector allowed individuals within a desperate economy to survive—some even to prosper. But, it also convincingly demonstrated the extreme failure of the Gorbachev reform efforts. Individuals preferred to incur the costs associated with a complicated barter system rather than deal with the official monetary system that was no

<sup>&</sup>lt;sup>2</sup>It was, of course, always the case that a ruble was not always a ruble. A ruble in the possession of a Communist Party official had a much higher purchasing power than a ruble in the possession of Ivan. Thus, despite the slight discrepancy in official income between high officials and average workers, there was quite a discrepancy in the real income distribution in the former Soviet Union. Moreover, in an administratively fixed-price economy it is conceptually difficult to talk about convertibility in a meaningful manner. But, the main point is that under Gorbachev the ruble became even less of an internally convertible currency then it was before. 
<sup>3</sup>It was estimated that only 40 percent of food, for example, was obtained through the official distribution system by 1990 (see Peck and Richardson 1991, p. 24).

longer credible. Without a well-functioning monetary system, though, systemic economic reform will continue to be absent.

## Centrality of Money

In a monetary economy the generally accepted medium of exchange represents a link in all exchanges. Money, in other words, is one half of all exchanges; that is, it is the joint linking all transactions. This jointness aspect of money translates into the proposition that if policy alters the value of the monetary unit it also changes the pattern of exchanges throughout the economy, distorting the industrial structure and misleading economic actors.

The Bolsheviks knew from Marx that monetary exchange was at the heart of the commodity circulation system. The original Marxian aspiration was to abolish the commodity production system and with it monetary circulation. But, this project in Marxian economic rationalization led to the complete collapse of the economy of Soviet Russia by the spring of 1921, forcing the Bolsheviks to change course with the New Economic Policy (NEP).<sup>5</sup> During NEP, the Bolsheviks even tried to revert to a gold standard to renew faith in the monetary unit with the chervonets reform.

NEP failed because the government backed out of its policy commitment to economic liberalization domestically and internationally. Discretionary action by the Soviet government undermined the monetary system and destroyed any incentive that peasants may have had to market their wares. By the end of the 1920s, the "market" was simply not a secure outlet for economic actors.

The Soviet experience with economic policy provides many important insights, but perhaps none as important as the central role a stable and credible currency plays in economic development. Without such a currency, development of the productive forces of society are thwarted. Recognizing the centrality of the monetary unit in any economic system forces economists to pay particular attention to systemic questions concerning the monetary regime itself and the rules under which it operates as opposed to particular pro- or counter-cyclical policies that are suggested by advocates of either demand-side or supply-side management of the economy.

<sup>&</sup>lt;sup>4</sup>See Peck and Richardson (1991, pp. 2–3; 29–33; 55; 89) for a discussion of the economic crisis in the former Soviet Union near the end of the Gorbachev period.

 $<sup>^5\</sup>mathrm{See}$  the discussion of the original Bolshevik project in Boettke (1990) and Roberts (1991).

## The Credibility Problem

Only if a reforming regime can convince the populace that it will honor its promise to respect their rights and create a stable environment for economic activity, will the economic liberalization reforms ever get off the ground. Conveying such a commitment, however, is the major problem in establishing a workable constitution of economic policy.

One of the major difficulties facing any reforming regime is somehow signaling to its citizens that it will honor its promise of reform and not renege. There are two strategic problems confronting the reforming regime. First, a strategic incentive game is generated by reform proposals. A policy or promise announced at one time may bring forth a response that in the next time period provides one player with a greater opportunity for personal gain by reneging rather than honoring the promise. When I am having trouble falling asleep, for example, I may attempt to solicit my wife to rub my back with the promise, "I'll rub your back, if you rub mine." However, if her soothing back rub produces the intended result, then I will be much better off by reneging than honoring my promise—since I will now be asleep. My wife, of course, knows that I will renege on the promise, and therefore, except for the kindness of her heart, will refuse to believe the promise and not rub my back.

A similar situation faces the government and its citizens when formulating public policy. Without a binding commitment to honor its promise, citizens will realize that the government may gain in future periods by reneging on the policy, and thus will not trust the policy announcements of the government unless the government can establish a binding and credible commitment to the policy.

This problem is compounded when we realize that the situation is not limited to the strategic incentives, but also includes an informational problem that may be even more difficult to overcome. Faced with a reforming government, citizens do not really know who they are playing with. The citizens' only prior knowledge of the regime was the "old way" of doing things. Reform signals a break from the past, but why should citizens believe the regime? Without citizen participation, though, the reforms will stall.

The regime's problem, then, is not simply limited to the difficult problem of solving the basic paradox in establishing constraints on its activities that do not deter its positive ability to govern. In order to get economic liberalization off the ground, the rulers have to simultaneously establish binding constraints on their behavior and signal a sincere commitment to reform to the citizenry. During war, for

example, if his troops crossed over a large river to do battle with opposing forces, the commanding officer may order the bridge burned—thus precommitting his troops to the battle ahead by eliminating the only possible escape. At the same time, however, opposing troops witnessing the smoke have received a signal that the other side will fight a hard battle. The reforming regime must do something similar to the commanding officer's burning of the bridge to establish trust and bind itself to the liberalization policy. If it does not, then neither domestic citizens nor foreigners will have much of an incentive to invest in the economic future of the region.<sup>6</sup>

## Monetary Regimes and Credibility

Economic liberalization demands a convertible currency. One of the main problems of the transition of the former Soviet economy to a market economy lies in the inconvertibility of the currency. A market economy requires a widely accepted medium of exchange that can purchase goods and services on the domestic market (internal convertibility), and that is easily converted into foreign currency (external convertibility) at free-market rates. The reality of the Soviet economy under Gorbachev was that the ruble was neither internally nor externally convertible. Despite the wide variety of proposals for ruble convertibility, most have in common the reliance of a central banking system to institute the reform.

Successful monetary reform, however, can be nothing short of complete depolitization of the monetary system. The reasons for depolitization of the monetary system are straightforward. Depolitization of the monetary system eliminates the inflationary ability of the government and forces government to either borrow in the capital market or raise revenues through taxation to finance its affairs.

<sup>6</sup>Dani Rodrik (1989) has addressed the issue of commitment signaling with regard to policy reform in a game-theoretic framework. As he sums up his argument: "At the outset of any reform, the public will typically be unable to fathom the true motivations of the government undertaking the reform. Since the distorting policies in question have been put in place by those in power to begin with, what reason is there to believe that the authorities now 'see the light'? . . . Signalling via policy-overshooting can then help reduce the confusion. . . . The more severe are the credibility problem and its consequences, the more likely it is that a sharp break with the past will be viewed as attractive" (p. 771). Therefore, if the credibility gap is particularly important, as it was in the Soviet situation, all notions of gradualism must be put aside for the appropriate signal to be conveyed. Policy overshooting can distinguish a sincere reform government from its insincere counterpart. Thus, policy overshooting will have the effect of rendering the policy reform more credible than it otherwise would be, and alleviate the problems associated with lack of credibility.

The logic of the depolitization of money is also fairly straightforward.<sup>7</sup> The market for monetary services is no different than the market for other commodities. There is no need for government to "manage" money. Rather than a regulated banking system based on central bank monopoly note issue, a more viable alternative can be found in an unregulated banking system of competitive note issue.

The fundamental problem with central banking, however, is not the problem of political manipulation of the monetary unit. The real problem is that central banking presupposes the capability of state authorities to access information that is neither in their interest nor ability to gather.<sup>8</sup> For central banking authorities to manage the supply of money accurately, they would have to possess knowledge of the conditions of supply and demand that is not available to any one mind or group of minds. Both the political and economic problems of central banking are inherent in the institution itself.

Competitive note issue will set in motion an entrepreneurial process that will adjust supply decisions of bank managers to meet the public's demand for monetary notes. The clearing mechanism under free banking will ensure that managers will receive the appropriate signals for effective resource allocation. The clearing mechanism provides signals concerning debit and credit that follow from the bank's under- or overissue of notes. This information will cause bank managers to adjust their liabilities accordingly. Moreover, in a free banking system of competitive note issue, the return of notes and checks for redemption in base money will also provide incentives and information that is vital for the proper administration of the money supply. Monopoly note issue by a central bank simply cannot generate the incentives or information required to adequately manage the money supply. Central banks are not well equipped to know whether an adjustment in the supply of money is needed; nor are they well equipped to assess changes in the demand for notes.

Competition in note issue, however, promises all the same benefits that competition in any other commodity does. The availability of

<sup>7</sup>See the discussion of free banking theory in White (1989) and Selgin (1988). For a historical discussion of the operation of a free banking system, see White (1984). A key episode in White's discussion of the Scottish system is how the banking system handled the Ayr Bank failure of 1772. As White points out, the Ayr Bank, which was in operation from 1769 to 1772, engaged in reckless management and extended a great deal of bad credit through note issue. The bank's failure also led to the failure of eight other private bankers, but it did not threaten the financial system as a whole. The note exchange system that emerged in the Scottish system served as an important check against overissuance by a single bank and provided market incentives to discipline those that attempted to engage in overissue of its notes through the law of reflux (White 1984, pp. 30–32, 126–28).

<sup>8</sup>For a discussion of this problem with central banking, see Selgin (1988, pp. 89–107).

substitutes will force bank managers to act prudently in forming their business decisions. Brand names will be important in the competitive process as some bank notes will become more respected than others. But as long as freedom of competition persists, then an effective administration of the money supply will result.

In the current situation of the former Soviet Union, the ruble has become basically worthless. The Russian Republic is running its printing presses 24 hours a day. Free banking offers an alternative to this monetary chaos.

Banks could offer notes backed by hard currency or some bundle of commodities or gold. The banks would offer deals on ruble exchanges to attract customers. Individuals would gravitate to bank notes that were most widely accepted for market transactions. Central bank rubles would disappear, as would the institutional organs of central banking, but monetary order would emerge and the money supply would be free of the manipulation of the political process.

One final note: free banking offers an answer to the policy dilemma highlighted above concerning commitment conveyance. Eliminating government control over the money supply not only precommits the regime, it also signals to market participants that the government is sincere in establishing restraints on government's leading role in the economy. It will take such a drastic step—policy overshooting—that signals binding constraints on government action to get economic liberalization policies on the right track. Allowing competitive note issue under a regime of free banking offers the best chance for achieving the simultaneity required for conveying and establishing a credible precommitment to liberal economic reform.

#### Conclusion

Liberalization requires a transformation of the previous institutions and practices of the "old regime." The monetary system is central to any economic system, and, therefore, represents the most fundamental focal point of economic policy. Depolitization of the monetary system offers the best chance for the emerging market economies of Eastern Europe. Competition in note issue is not only a theoretically viable system; it represents a practical solution to the problem of precommitment and signaling that government's discretionary role in the economy has been constrained in a credible manner.

<sup>&</sup>lt;sup>9</sup>A private currency board, therefore, could represent a viable alternative. But, a government-run currency board possesses severe theoretical and practical shortcomings.

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# GETTING THE RULES RIGHT Jerry L. Jordan

Kevin Dowd's paper consists of several parts. In the introduction, Dowd argues that there can be no spontaneous creation of a new stable unit of account. In the next section, he explains how a currency board could be used during a transition period to stabilize prices and to allow the evolution of private money. He goes on to discuss how a private insurer of media of exchange would drive the currency board out of business and why competition among private currency issuers would ensure price stability in the unit of account. In a final section, he discusses the need to establish property rights and to extend them to foreigners. He also encourages specific legal reforms to spur the development of banking and other financial institutions.

Two fundamental principles should be kept in mind as we discuss how to structure a monetary regime for the transition to a market economy. First, money arises in a market economy in order to reduce information costs and facilitate transactions. We often use the phrase "monetization of the economy" to mean the development of markets for goods and services that had previously been produced at home. Historically, markets and money have arisen simultaneously. This role of money is poorly understood by economists, yet is critical for the operation of a market economy. In particular, fostering sound money is an important precondition for the evolution and maintenance of credit markets. The cost of starting and operating markets for credit will be much lower without the uncertainty and mistrust that invariably accompany inflationary policies.

Second, the power (or the right) to create money may be an important source of revenue, especially when a government is new and weak. Because the inflation tax will appear as a safety valve to

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release the short-run pressures that build as coalitions struggle over the resources that government controls, it is important that the inflation option be made difficult to exercise. We should seek practical approaches, through constitutional means, to limit the power of governments to debase the currency.

## Money as a Determinant of Productivity

Karl Brunner and Allan Meltzer (1971) and Armen Alchian (1977) explained how every society will use some goods as money. The goods chosen will be those that economize best on the use of other real resources in gathering information about relative prices and in conducting transactions. The presence of money reduces the costs of making and clearing markets. An efficient currency based on a stable unit of account is especially important in more primitive economies that rely heavily on currency for making transactions.

Almost all formal macroeconomic and public finance analysis of optimal monetary policy ignores this important role for money. Yet the welfare triangles associated with alternative policies in those formal models are no doubt swamped by the welfare losses that occur when such policies reduce the efficiency of money in facilitating market clearing. When Milton Friedman (1969) argued for the optimal deflation rate, he implicitly assumed that markets cleared costlessly and that allowing the unit of account to appreciate over time would not interfere with the efficiency of the price mechanism. When macroeconomists argue for aggregate demand management (and against rules for price stability), they almost never take into account the cost of making the price system less efficient.

Credit markets thrive on good information and on trust among market participants. That is why our first experience with credit is usually with friends and family. Credit extension will be essential for the successful privatization of Eastern European economies. One advantage of the market system is that the market collects and disseminates information in a way that no individual or government agency can match. But the efficiency—indeed the likelihood of survival—of credit markets is much higher if the price system gives good information about economic value and if the government can be trusted to stabilize the unit of account.

If the former Soviet republics and Eastern European countries already had sound money, they would have greater wealth and fewer credit problems. Although the ultimate goal of the reform movement is to create wealth, or to raise living standards, the success of any reform will also require making credit available to potentially productive enterprises.

Reformers should be careful when adopting our institutions. The West has endured considerable inflation in the last two or three decades. Our credit markets have flourished despite this inflation, not because of it. As a matter of record, we know that the rise of inflation has closed many long-term markets and spawned others whose only apparent purpose is to hedge the risk associated with uncertain inflation policies.

#### Inflation as a Source of Revenue

Debasing the currency has been a common method of taxation for a few thousand years. Considering all of the available options at any given time, history has frequently recorded instances where inflation was deliberately chosen as the least undesirable method of taxation. Unfortunately, such instances are almost always associated with war finance or with a government on the verge of collapse. A government that is limited to inflation as a primary form of taxation in peacetime has lost the capacity to govern.

Those who give advice about the optimal monetary policy must spend some time thinking about the optimal tax policy. Surely the advice to forgo the inflation tax would be more credible if it were presented as part of a realistic and comprehensive tax package.

Ultimately, the success of monetary reform will depend on the successful management of the government budget. In the former Soviet Union, or maybe even Russia currently, the government budget deficit is approximately 25 percent of GDP. It also happens that military expenditures are approximately 25 percent of GDP. Monetary creation is necessary to finance government expenditures—given the lack of debt markets, a stable currency, and so on. Monetary creation is necessary to meet the payroll of four million soldiers. We cannot assume away the problem. Until the fiscal imbalance is corrected, monetary stability requires foreign capital inflows. These countries cannot simply raise explicit tax revenue, or stop paying the armed forces. As desirable as it may be for the former socialist economies to slash expenditures and to dismantle the military forces, the only way that monetary creation can be contained during the transition is through access to foreign capital.

## Money as a Network

Dowd's analogy about the telephone network is a good one. The introduction of a successful telephone network requires more than just an adequate supply of telephones. If we were told, for example, that Romania has a terrible telephone system, we would not solve the problem by contracting with a manufacturer to ship several million

inexpensive plastic handsets to Bucharest. Similarly, giving or loaning foreign currencies will not fix the monetary systems of the transition economies. Instead, the emerging market economies need to encourage the natural tendency of money and markets to evolve simultaneously. One way is to adopt the institutions and technologies that other countries have developed.

In an important sense, however, the telephone analogy is weak. People will always have something to say, so the advantages of having a telephone system are obvious. It is not so obvious how people in the emerging market economies will benefit from a newly formed monetary-exchange system; they must first have something to trade. That is why reform must begin with the assignment and protection of property rights.

## **Currency Boards**

As Dowd suggests, monetary reformers may want to adopt more than just the technology of their more financially sophisticated neighbors. By the use of a currency board, they might also borrow the stability and credibility of their neighbor's currency. To accomplish this, an emerging market economy in Eastern Europe could peg its new currency against one of the major currencies, such as the Deutsche mark, since this would tend to stabilize the new currency vis-à-vis the European market. In this way, a new government might import the stability of the Deutsche mark as well as the credibility of the Bundesbank without actually adopting the mark as the medium of exchange.

Ironically, Germany itself was in this situation just four decades ago. After World War II the Deutsche mark was tied to the U.S. dollar before it became a standard of value in its own right. Monetary reform in West Germany included institutions that successfully dealt with the overhang of currency from an earlier period of price controls and excessive monetary growth. It also enacted specific restrictions strictly limiting the amount of government debt that could be monetized. Although these restrictions were imposed by an occupation army, they were ratified by the German government when the currency became convertible in 1957 and are, at least in part, a reason for the relative stability of the Deutsche mark today.

Dowd is skeptical of currency boards for two reasons. First, they tend to turn into central banks. Some form of private money would evolve along with markets, even where the government did nothing more than define and protect property rights. To speed up this natural market evolution, Dowd advocates government intervention, but wants it to be temporary. Although I am sympathetic to the things that

can go wrong when the government is a monopoly provider of money, I see little chance that the emerging democracies will adopt private money.

Because those nations are likely to adopt central banking institutions, it seems wise to consider the restraints, the checks and balances, that would increase the prospects for price stability. These include constitutional limits on the ability of the central bank to monetize government debt, limits on the size of government itself, a substantial degree of political independence for the monetary authorities, and a clear set of priorities that ensure accountability to the public.

Second, the use of a currency board and a fixed exchange rate may lead to imported inflation. This problem might be overcome with an indexed peg. For example, suppose the currency were pegged to the U.S. dollar and it was believed that the dollar was inflating 2 percent faster than the desired rate. One solution would be to create a crawling peg that allowed the domestic currency to appreciate 2 percent per year against the dollar. Of course, this approach assumes that the trend rate of inflation in the U.S. dollar is predictable. A more secure method to insure against imported inflation may be to use the exchange rate as an intermediate target to achieve a long-run goal for a domestic price index, as the Swedish *Riksbank* did in the 1930s (See Keleher 1991).

## Competing Private Currencies

I am not convinced by Dowd's argument that competition among private currency issuers would ensure price stability. The paper does not mention *specific performance* and the necessity of legal institutions that will enforce contracts in the terms of the contracts rather than in some politically enforced legal tender. Without legal enforcement of specific performance, Dowd's privately issued currency system simply will not function.

Implicitly, Dowd defines a superior brand of currency as one offering more price stability and says that a type of consumer sovereignty will ensure that the inferior brands (that is, eroding currencies) will not survive. His private producers of currency are issuing media of exchange, but he concludes that competition will ensure a stable unit of account (if that is what the public wants). He asserts that this is probably the case, but offers no proof. On the contrary, the only evidence he presents points in the other direction. He argues that, in the European Community,

the common currency is supposedly to have a stable value, but one has good reason to be skeptical that the commitment will be

honored. The issuers of most existing currencies are also committed to maintaining their values, but that "commitment" still does not prevent them from inflating their currencies, and there are good reasons in the Western European context to doubt the value of any commitment to price stability. The fact that much of the drive for a European central bank comes from dissatisfaction with the (relatively) conservative policies of the Bundesbank can only imply that the other European monetary authorities want more inflationary policies, and there is the ever-present danger that the financial problems of the EC will lead to it pressuring the "independent" European central bank for cheap loans to be financed by printing money [Dowd 1993, pp. 566–67].

Dowd cannot have it both ways. He simultaneously argues that the lack of popular political support for price stability means dismal prospects for monetary stability in Europe, while maintaining that privately issued currencies in Eastern Europe and the former Soviet republics will be stable because the public wants stable currencies. Dowd does not make a clear distinction between consumer preferences as expressed in the marketplace and voter preferences as expressed in the polling booth. Yet, some explanation is needed to reconcile his evaluation of the current state of monetary affairs in the EC with his belief about the public's desire for price stability.

Dowd might investigate the issue in a framework such as that used by Allan Meltzer and Scott Richard (1981) in their mean-medium voter model. One could explore the conjecture that the people most likely to vote in a democracy are better hedged against the consequences of mild inflation than is the population at large. Perhaps the less-educated, lower-income renters in society are both less likely to vote and less able to protect themselves against the consequences of inflation.

#### A Litmus Test for Successful Reforms

We will know that monetary reform has worked when we see substantial, voluntary inflows of foreign private equity and debt capital. If there is a substantial inflow of foreign private capital (or in countries such as Latin America, repatriation of capital), then foreign official capital will not be needed. But, if we do not see a substantial voluntary inflow of private debt and equity capital, then no amount of foreign official capital would solve the problems of these countries. Foreign official credit may even undermine incentives for rapid implementation of essential economic reforms such as privatization of government enterprises. If these countries get the rules right, they

will see an inflow of private capital and will not need foreign official credit. If they do not get the rules right, then foreign official credit is a waste, at best.

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