

## CURRENCY BOARDS AND CURRENCY CONVERTIBILITY

*Steve H. Hanke and Kurt Schuler*

Standard textbooks characterize the evolution of an economy toward a modern market economy in the following way. Initially resources are privately owned but there is no money, so trade takes the form of unorganized barter. That is extremely costly and inefficient because it requires a double coincidence of wants. The high transactions costs that result are a barrier to any trade taking place at all.

To reduce transactions costs, economic agents attempt to organize barter. Marketplaces develop, with trading grounds divided into trading posts or stalls at which specified pairs of commodities can be traded. Typically, these markets will be open for trade on specified market days. Even such organized barter is very costly, however. For example, the pairwise trading of only 10 commodities requires 45 separate trading stalls.

To further reduce costs, economic agents attempt indirect pairwise trading. That can be accomplished by establishing trading posts for all commodities except one, the exceptional commodity being distinguished from all others by the fact that it is tradeable at all posts. The exceptional, intermediary commodity is money. Money facilitates the development of a modern market system by lowering the costs of acquiring information and making transactions (Brunner and Meltzer 1971).

Now, let us turn our attention from the textbooks to the former Soviet Union. At the very time when the former Soviet Union claims

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that it wants to move toward a market economy, it is regressing toward unorganized barter. The cause is its dysfunctioning money, the ruble, which is inconvertible externally and, to a large extent, internally. If the former Soviet Union wishes to establish a modern market economy it must introduce a sound, convertible currency.

### The Functions of a Sound Currency

A sound currency serves as a satisfactory store of value, medium of exchange, and unit of account. An unsound currency such as the ruble does not fulfill any of those functions. An unsound currency is not a reliable store of value because inflation makes its value highly unpredictable. As a result, people save by hoarding bricks, timbers, food, and other commodities, which retain value better than money and other financial assets. Although commodity hoarding is rational for people in the former Soviet Union at present, it withholds resources from production and slows economic growth.

An unsound currency such as the ruble is not a good medium of exchange. The outside world refuses to accept it. That impedes much-needed Western investment in the former Soviet Union. The inconvertible ruble also impedes foreign trade, which is needed to provide competition with monopolized enterprises and to establish an internationally competitive structure of prices for tradable goods and services within the former Soviet Union. The ruble is not even a good internal medium of exchange within the former Soviet Union. Consequently, barter is common, and almost all transactions for exchanges of large real property are priced and take place in foreign currency (Uchitelle 1992a). Lack of external and internal convertibility slows economic growth.

An unsound currency is not a good unit of account. Inflation distorts prices and makes business calculation more difficult. Without a reliable unit of account, it is impossible to make accounting calculations, to write contracts, and to make meaningful economic decisions. Indeed, without a reliable unit of account, the information that is contained in market prices is lost and the means of efficient communication ceases. A novelist captured this point when describing the German hyperinflation: "Money was rapidly ebbing away from between men, leaving them desperately incommunicado like men rendered voiceless by an intervening vacuum; millions, still heaped on top of each other in human cities yet forced to live separate, each like some solitary predatory beast" (quoted in Scitovsky 1969, p. 2).

The ruble is being issued by a central bank that possesses little, if any, credibility. Citizens of the former Soviet Union have responded to the ruble's untrustworthiness by conducting their own unofficial

monetary reform, substituting foreign currencies for the ruble (dollarization). Flight from the ruble has been significant: it is estimated that households in the former Soviet Union hold \$5 billion to \$10 billion in hard currency (Dempsey 1992, Hanke 1991, Norman 1991b). Indeed, the real value of hard currency holdings by households exceeds the real value of the total ruble supply.

Dollarization is costly. To obtain dollars or other "hard" currencies, citizens of the former Soviet Union must exchange real goods and services for bits of paper that Western central banks produce at almost no cost. Moreover, once obtained, those bits of paper lose value over time. They generate significant profits for Western central banks, resulting in a perverse form of foreign aid that flows from the former Soviet Union to the West (cf. Fischer 1982).

### The Currency Board Solution

As long as the former Soviet Union retains a central bank (or establishes new central banks), the ruble will continue to deteriorate, motivating more barter and dollarization. If the former Soviet Union wishes to transform its economy, it must stop relying on central banking. It requires an alternative to central banking. The currency board system is an alternative well suited for the former Soviet Union.<sup>1</sup>

We now present a proposal for introducing the currency board system in the former Soviet Union. We go into some detail because little information about currency boards is easily accessible, and because few people know how to establish and operate currency boards. In addition to presenting our proposal, we answer some questions that have been raised about currency reform for the former Soviet Union.

A currency board is an institution that issues notes and coins convertible into a foreign "reserve" currency or commodity at a fixed rate and on demand. It does not accept deposits. As reserves, a currency board holds high-quality, interest-bearing securities denominated in the reserve currency (or commodity). A currency board's reserves are equal to 100 percent or slightly more of its notes and coins in circulation, as set by law. (Commercial banks in a currency board system need not hold 100 per cent reserves in reserve-currency assets against their deposits, though.) The board generates profits

<sup>1</sup>Other economists who have recently voiced support for currency boards in the former Soviet Union and Eastern Europe include Milton Friedman (1991), Daniel Gressel (1989), Robert Hetzel (1990), Jerry Jordan (1991), Allan H. Meltzer (1991), George Selgin (1992), and Sir Alan Walters (1991). For more detail on the currency board system, see Hanke, Jonung, and Schuler (1992, 1993).

(seigniorage) from the difference between the interest earned on its reserve assets and the expense of maintaining its note and coin circulation (liabilities). It remits to the government all profits beyond what it needs to cover its expenses and to maintain its reserves at the level set by law. The currency board has no discretion in monetary policy; market forces alone determine the money supply, where the money supply is defined as the public's holdings of notes and coins plus deposits held with the commercial banking system.

The main characteristics of a currency board are as follows.

### *Convertibility*

The currency board maintains unlimited convertibility at a fixed rate of exchange between its notes and coins, on the one hand, and the reserve currency (or commodity), on the other hand. Although the currency board does not convert local deposits denominated in its currency into reserve assets, the exchange rate that it sets will determine terms of arbitrage between the reserve currency and local deposits at commercial banks.

### *Reserves*

A currency board holds reserves adequate to ensure that even if all holders of the board's notes and coins (liabilities) wish to convert them into the reserve currency (or commodity), the board can do so. Currency boards have usually held reserves of 105 or 110 percent of their liabilities, so that they would have a margin of protection in case the interest-earning securities that they held lost value.

### *Seigniorage*

Unlike securities or most bank deposits, notes and coins do not pay interest. Hence notes and coins are like an interest-free loan from the people who hold them to the issuer. The issuer's profit equals the interest earned on reserves minus the expense of putting the notes and coins into circulation. These expenses are usually less than 1 percent of assets per annum. In addition, if the notes and coins are destroyed, the issuer's net worth increases, because liabilities are reduced but assets are not. Seigniorage generated by a currency board is significant.

The chief economic difference between using currency issued by a currency board rather than reserve currency notes and coins is that a currency board captures seigniorage for domestic use, rather than letting it accrue to the foreign central bank that issues the reserve currency. A currency board also has the political advantage of satisfying nationalistic sentiment for a local issue of currency.

*Monetary Policy*

By design, a currency board has no discretionary powers. Its operations are completely automatic, consisting only in exchanging its notes and coins for the foreign reserve currency at a fixed rate. Unlike a central bank, a currency board cannot act as a tool of inflationary government finance; nor can it offer state-owned enterprises credit at below-market interest rates to accommodate a "soft budget constraint," because a currency board cannot issue fiduciary money. Under a currency board system, government expenditures can only be financed by taxing or borrowing.

*Interest Rates and Inflation*

Given the fixed exchange rate between the local currency and the reserve currency, interest rates and inflation in the currency board country will tend to be roughly the same as those in the reserve-currency country.

*Historical Record*

The currency board system is a well-tried system with an excellent record (Schuler 1992). It has existed in over 60 countries, and in all cases maintained convertibility at a fixed exchange rate. Even though currency boards performed well, most currency boards fell victim to intellectual fashions of the 1950s and 1960s that favored central banking. Also contributing to the demise of currency boards was the unjustified stigma of colonialism that attached to them in many former British colonies. Former colonies tended to rid themselves indiscriminately of previously existing institutions, throwing the baby out with the bathwater in the case of currency boards. Today, orthodox currency boards still exist in Hong Kong, Brunei, the Falkland Islands, the Faroe Islands, and Gibraltar.

Among the nations that have had currency boards is Russia. The region around Archangel and Murmansk had a currency board in 1918 and 1919, during the life of an anti-Bolshevik government in the region. The board was the idea of John Maynard Keynes (Hanke and Schuler 1991b). It issued a very successful, stable ruble currency redeemable at a fixed rate of 40 rubles per £1 sterling. Its currency circulated parallel to the inconvertible, unstable currencies issued by other Russian governments at the time. The board's sterling-backed ruble drove the others out of circulation because it was preferred by inhabitants of the region. The experience of North Russia may appear to contradict Gresham's law that "bad money drives out good." However, Gresham's law only holds when the law sets an exchange

rate that favors the bad money. When exchange rates are determined freely, good money tends to drive out bad money (Brunner and Meltzer 1971).

Like the North Russian currency board system, other currency board systems had excellent records. No currency board ever failed to maintain convertibility at the fixed exchange rate with its reserve currency. Currency boards in North Russia and Burma even managed to maintain fixed rates during civil wars. Most currency board countries accommodated money supply growth and strong, noninflationary economic growth. For example, in Hong Kong, average annual growth in real gross domestic product per person was 6.3 percent from 1965 to 1989. Moreover, Hong Kong maintained relatively low inflation in that period.

### Establishing a Currency Board

In a number of cases, including the free city of Danzig, Palestine, and Libya, currency boards have replaced central banks or other monopoly note issuers. However, the case we present is one in which a currency board comes into existence as a parallel issuer of currency, as it did in North Russia. Hence the currency board's currency may circulate competitively against that of a local central bank or of a foreign central bank (as other former Soviet republics now consider the Russian central bank to be). (In Hanke and Schuler 1991c, we discuss both scenarios in detail.)

The steps in establishing the currency board are as follows.

1. The currency board statute is established. (See Hanke and Schuler 1991c, Appendix I for a model statute.)
2. The initial reserves are transferred to the currency board, which we proposed should be a private, not a government, institution.
3. The currency board issues no more currency than the amount of its initial reserves. Hence, the board's currency is backed by 100 percent reserves from the start.
4. The new currency is put into circulation, preferably by a distribution to every citizen according to a predetermined formula.
5. All restrictions on foreign exchange and the entry by foreign financial institutions into the former Soviet Union are abolished.
6. The currency board's currency circulates as a parallel currency and competes with the currency of the local central bank; the exchange rate between the two currencies is freely determined.
7. The currency board stands ready to perform its sole function of exchanging its currency for reserve assets at a fixed rate.

Let us consider the most important questions about these steps.

Step 2: Where can the reserves be obtained? State property should be used to supply the initial reserves. That should not prove to be difficult: the Communist Party and state-owned enterprises in the former Soviet Union deposited \$15 billion to \$40 billion in hard currency overseas in 1991 alone (Dempsey 1992). In addition, revenues from sales of state-owned assets in the former Soviet Union could be used for reserves.

Step 3: How large should the initial reserves of the currency board be? Establishing currency boards in the former Soviet Union would not require enormous foreign reserves. This is particularly the case since we propose to issue a new parallel currency in each former republic that wants one, rather than to replace an old currency with a new currency. In any case, under the currency board system the actual size of the initial reserves is not crucial, because the system allows the supply of new domestic currency to adjust readily to demand.

To appreciate how small the initial reserves could be, suppose a new currency board in the former Soviet Union were to distribute the equivalent of \$15 to each citizen. Although \$15 does not appear to be much at first glance, it exceeds a month's wages for the average worker at present market exchange rates. Since there are about 275 million persons in the former Soviet Union, the total amount needed to provide 100 percent reserves for new currency boards would be just \$4.1 billion. Past currency reforms that *completely* replaced an old currency with a new (such as the German reform of 1948) were able to restart economic activity by using similarly small amounts of new, sound money.

Step 4: How should the currency board's notes be distributed? The exchange rate between the currency board currency and the reserve currency should be one to one, so as to make conversions easy to calculate. (This is merely a matter of convenience. If the exchange rate is, say, 135.33 currency board rubles per U.S. dollar, the nominal amount of currency board notes will be 135.33 times greater than if the exchange rate is one currency board ruble per U.S. dollar. The real amount of currency board notes, calculated in dollars, will be the same in both cases.) The currency board should start the new monetary system by distributing notes and coins representing 100 percent of the value of its reserves. If it has \$4.1 billion in reserves, it should distribute the equivalent of \$4.1 billion worth of its notes and coins. The actual distribution could be designed in various ways. The easiest method would be to give every citizen or household an equal, one-time gift of the new currency. In addition to simplicity, this type of broad-based distribution of the new currency would be

popular, and would motivate support for the currency reform, popular capitalism, and a transition to a market economy (Piñera 1991).

Step 5: What restrictions on foreign exchange and foreign banks are necessary? None. Without restrictions on foreign exchange, currency competition can exist, not only between the issues of the local currency board and the local central bank, but also with foreign currencies (Hayek [1976] 1991). With the freedom to hold and conduct transactions in any currency, good money will drive out bad, resulting in the sound monetary system that is a necessary condition for a successful transition to a market economy.

To make the currency board system yield its full benefits, foreign commercial banks should be allowed free entry into the former Soviet Union. Existing banks in the former Soviet Union lack the credibility that foreign banks possess. In addition to bringing credibility to the banking system, foreign banks will bring with them new techniques and knowledge about financial matters (Uchitelle 1992b).

The currency board system and free entry of foreign branch banks will allow for the natural establishment of commercial ties with the reserve-currency country, because foreign exchange risk for persons in the reserve-currency country who invest in the currency board country and make transfers of capital will be eliminated. Foreign branch banks have always been common in currency board countries. This has given those countries ready access to international capital markets and expertise. The presence of foreign branch banks has made for a more vigorous commercial banking sector in currency board countries (Hanke and Walters 1991).

Step 6: What will be the fate of the currency issued by the central bank? The currency board's notes and coins will enter into circulation alongside the central bank's notes and coins. If the central bank ruble remains an unsatisfactory currency, much of the economy will quickly switch to the currency board ruble as the unit of account because it will be far more stable than the central bank ruble. It will be a matter for individuals and enterprises to decide which currency they wish to use.

If the currency issued by the central bank continues to suffer from high inflation, it will eventually cease to be widely used. That is what occurred in North Russia after local currency board notes were introduced in parallel with the inflationary issues of other Russian governments fighting the civil war. That was also the experience in the Soviet Union from 1922 to 1924, when the nominally gold-backed chervonets circulated in tandem with the depreciating sovznak (Yeager 1981).

As the public becomes convinced that the monetary reform is working, it will deposit its hard foreign currency in local bank



branches. People should be free to convert foreign currency into domestic currency or to hold the deposits in any foreign currency they wish. Permitting foreign currency deposits will promote financial development, as it has in Hong Kong, where foreign currency deposits exceed Hong Kong dollar deposits.

Step 6 (continued): What will be the effects of the currency board on wages and prices? The currency board is based on a fixed rate of exchange with the reserve currency. Using this rate as an anchor, nominal wages and prices within the currency board country must be set accordingly. No one can know in advance what the proper wages and prices should be; thus we cannot give any recommendations on "correct" wages and prices. Market forces should be allowed to set wages and prices freely. The new currency would facilitate the process, though. Some wages and prices will temporarily be set at inappropriate levels, but trial and error in the market will tend to make mistakes self-correcting.

As a first approximation, wages and prices can be translated into their levels in the reserve currency. Thus, if a farmer sells potatoes for 15 rubles per kilo, the floating exchange rate of the ruble is 100 rubles per U.S. dollar, and the fixed exchange rate of the currency board currency is one currency board ruble per U.S. dollar, the price of potatoes should be 0.15 currency board rubles per kilo. (Remember that the currency board ruble has a fixed exchange rate with the U.S. dollar in this example, but it floats against the central bank ruble unless the central bank fixes the ruble to the U.S. dollar also.) As confidence in the new monetary system increases, wages and prices will probably require substantial adjustment from their initial levels. The government should not interfere with price adjustments by imposing mandatory indexation or price controls on the private sector. Such interference will result in an inflexible economy that is incapable of adjusting to changing market conditions (Luders and Hanke 1988).

## Operating a Currency Board

A currency board is simple to operate. Past currency boards have usually had staffs of 10 or fewer people. They have been able to achieve economies by contracting some clerical and investment functions to outside parties. Indeed, most currency boards have used large commercial banks in the countries where they deposited their assets as agents. One of the great advantages of a currency board is its extreme simplicity. It is doubtful whether the former Soviet Union has enough well-trained people to staff a central bank. We shall now describe the basics of operating a currency board.

### *Exchange Policy*

The sole business of the currency board will be to stand ready to exchange its notes and coins on demand at a fixed rate into or from the reserve currency at its offices. To hold a large stock of reserve currency notes and coins would reduce its profits, because the board would not be able to invest those funds in interest-bearing securities. The board should try to do a “wholesale” currency exchange business with commercial banks. However, the public as well as banks should be able to deal directly with the currency board. Some British colonial currency boards dealt only with banks, as a way of reducing their need for staff. It seems unnecessary and unjust to discriminate against the public in such fashion. Most people will exchange currency through banks in any case. Accepting transactions from the public introduces a form of competition with banks, and ensures that their fees for exchanging into the reserve currency will be low, thus tightening the link with the reserve currency.

The currency board should preferably not charge any commission for its exchange services, and should have no lower limit for exchanges. (By nature a currency board has no upper limit for exchanges, unless the public converts all of its notes and coins into reserve currency.) The purpose of a currency board is to costlessly eliminate exchange-rate risk between the board’s currency and the reserve currency. Accordingly, there is no point in erecting barriers to exchange with the reserve currency. The social benefits of not charging commissions far outweigh the pecuniary benefits to the board of charging commissions. The board will earn a return on its assets in the form of interest from reserve-currency securities, which will easily cover all costs of operations.

### *Offices*

The board should have a main office in Moscow, and perhaps a few branch offices in other large cities. The role of the branch offices or agents will be mainly to serve as places for safekeeping currency. It is not necessary to have actual branches. Instead, a commercial bank could act as the board’s agent, as the Bank of British West Africa did for the West African Currency Board. The board should perhaps also have an office in the reserve-currency country to handle business there.

### *Management*

The currency board should have a small board of directors—past currency boards have had three to eight directors—to oversee the

board's managers. The powers of the board of directors and of the managers will be quite limited. Unlike their counterparts in central banks, directors will have no influence over monetary policy. (Later we will suggest how board members should be chosen.)

### *Staff*

The currency board's staff will perform two functions: exchanging its notes and coins for reserve currency (and vice versa), and investing its assets in high-grade reserve-currency securities. The exchange work requires only a small staff of bank tellers. The investment work requires some expert financial traders, but since the board will follow rather routine, conservative investment practices, its expenses should be smaller than those of commercial banks with portfolios of similar size.

### *Reserves*

The board should hold its reserves in high-quality bonds denominated in reserve currency. (Later we will explain how this rule could be modified.) It should not hold assets denominated in local currency, because that would open the way to central banking-type operations. Specifically, commercial bank reserves could be altered by changing the proportion of local currency assets to foreign currency assets held by the board. Besides opening the way for central banking, holding local-currency assets also could expose the currency board to defaults engineered by the domestic government.

It may be desirable to specify in the currency board's charter or by-laws what types of assets it could hold and what the maximum maturity would be. Long-term fixed-rate bonds swing widely in value as interest rates change, although they may offer higher average returns. Some past currency boards that invested heavily in long-term bonds suffered large losses when interest rates in the pound sterling rose sharply because of speculation against sterling, though their additional reserve of 10 percent prevented their reserve ratio from falling below 100 percent.

Past currency boards often divided their investments into a "liquid reserve" and an "investment reserve." The liquid reserve, consisting of securities that had maturities of less than two years, was typically about 30 percent of total reserves. The investment reserve, consisting of securities with longer maturities, made up the rest of the total reserves, equivalent to an estimate of the public's minimum, "hard-core" demand for a board's notes and coins. Liquid reserves should probably exceed 30 percent at the start, although it may be possible to reduce the ratio as time goes by.

### *Expenses*

Judging from the experience of past currency boards, expenses should average no more than 1 percent of total assets, and may be as low on average as 0.5 percent of total assets. The main expense will be printing notes and minting coins. Salaries will be the next greatest expense, and rent, utilities, and remaining costs will be small.

### Protecting the Currency Board

Although the currency board system was a great economic success, most currency boards have disappeared because they lacked the political independence to prevent them from being converted into central banks. Suspicion that a new currency board might be reconverted into a central bank would undermine the board's credibility, defeating one of the main advantages of the currency board system. To strengthen its credibility, a currency board in the former Soviet Union could undertake the following actions.

The currency board should insulate itself from any possible government manipulation. The majority of the board of directors could be appointed by foreign governments or foreign private institutions. Precedents for such an arrangement exist. For example, only three of the eight directors of the Libyan Currency Board of the 1950s were Libyan nationals; the rest were British, French, Italian, and Egyptian nationals chosen by their respective governments.

The currency board could also keep its assets in a safe-haven country such as Switzerland, and could be incorporated as a private entity under the law of the safe-haven country, independent of the governments of the former Soviet Union. (Their permission would of course be necessary for the board to operate on their territory.) The Burmese and Jordanian currency boards, among others, had their headquarters in London even after Burma and Jordan became independent.

Another way for the currency board to strengthen its credibility would be for its notes to contain a statement that they are convertible into the reserve currency at a whatever fixed rate had been established.

The currency board's notes should be printed outside of the country where the board operates, and should be of high quality to protect them from being counterfeited.

### Why Not a Commodity-Backed Currency?

Some economists argue that to obtain credibility, the ruble should be convertible into gold or some other commodity (Angell 1989,

Wanniski 1990). That may indeed be the case, particularly in the southern republics of the former Soviet Union. A commodity-backed currency board is possible. In the past, most currency boards have used a single foreign currency as their reserve currency. However, some currency boards have held gold or silver along with foreign-currency securities as assets.<sup>2</sup> Since no well-developed loan market for physical gold and silver existed, their gold and silver reserves paid no interest. The boards earned less seigniorage than boards that held foreign-currency securities only.

Today, with new markets and financial products, the seigniorage opportunity costs of using gold or other commodities as reserve assets for a currency board would be less than in the past. A currency board whose reserve asset was gold could lend the gold on the London gold loan market at the prevailing interest rate, currently about 2.8 percent a year.

Other commodities or a basket of commodities could also be used to back a currency issued by a currency board. Since organized loan markets for other commodities do not exist, the opportunity costs of using them would even be higher than using gold. Since nominal rates of interest from gold loans are lower than the rates presently available on securities in the leading hard currencies and since other commodities do not yield interest, a currency board that uses a commodity backing would earn less seigniorage than a board that uses a foreign-reserve currency. The credibility that might be gained by using commodities as reserves may exceed the seigniorage lost, however. If so, commodity reserves should be considered for the currency board.

### Why Not Free Banking?

Some have argued that the way to supply sound, convertible currencies in the former Soviet Union is to introduce a free banking system (Anderson 1992). Free banking is the system of banking without severe legal restrictions; in particular, it implies competitive note issue and decentralized reserve holding. Free banking existed in approximately 60 countries during the 19th century and the early 20th century (Dowd 1992). No free banking systems exist today, but free banking is enjoying an intellectual revival as an alternative to central banking.

The most important requisite of stable free banking is strong, competitive banks. Decades of socialism have left the former Soviet

<sup>2</sup>Examples include Mauritius (1849–1934), which held silver coins; New Zealand (1850–56), which held gold and silver coins; and Kuwait (1961–69), which held gold bullion.

Union with no real bankers and bankrupt large banks. Indeed, virtually all banks are burdened by large portfolios of bad loans. Even if the banks are recapitalized or split into "good" and "bad" banks, or if inflation reduces their assets and liabilities to near zero, they will be weak for some time to come (Uchitelle 1992b).

As we argued above, a solution to the problems of the local banking system would be to allow reputable foreign banks to enter the market without restriction, either to buy local banks or to set up new competing branch networks. In free banking systems in some Latin American nations, the Caribbean, and British colonies, foreign banks provided great stability and keen competition. However, these systems arose over extended periods of time, not overnight (see Dowd 1992). If free banking were permitted today in the former Soviet Union, it would initially be characterized by feeble competition among poorly capitalized local banks; the banks would be managed by persons with no experience in banking in a market economy; and the banks would be operating in an environment in which few people trust local institutions.

Such a free banking system would be disastrous. No system of checking accounts and check clearing exists yet in the former Soviet Union, so currency has a greater role in business and personal payments than it does in the West. If no unquestionably reliable domestic currency existed, a few failures by so-called free banks would turn public opinion against competitive note issue and would make it impossible to achieve true, mature free banking, which is characterized by a small number of well-capitalized banks having extensive branch networks, competing with one another nationwide.

The present currency regime makes it too risky for foreign (or domestic) banks to try to establish branch networks in the former Soviet Union. However, if history is a guide, under a currency board system, well-capitalized private banks (most likely foreign-owned), with extensive branch networks, would develop in a relatively short period of time. Once a currency board made the currency regime stable, it would be possible for sound banks to become established and to eventually issue competing parallel currencies along lines envisioned by F. A. Hayek ([1976] 1991) and Roland Vaubel (1978). The currency board would not preclude such an evolution. Indeed, a currency board system would provide the type of stable currency regime required for the development of a free banking system.

Competition between currency board notes and bank-issued notes has occurred before. In the British Caribbean colonies, banks issued notes not subject to any special reserve requirements. Bank notes

competed with currency board notes until the 1950s, when local governments outlawed bank note issue to gain more seigniorage revenue for themselves.

Whether the currency board would continue to exist after a mature free banking system developed would depend on whether consumers wanted to continue holding its notes and coins. If they did not, the board's note and coin circulation would decline toward zero as competing issuers gained circulation. Because the board would have 100 percent foreign assets, it would easily be able to meet competing issuers' demands to redeem its notes and coins. The board would fade away after having served as a bridge between central banking and free banking.

### Why Not a Central Bank?

To date, most persons have blindly assumed the desirability of central banking for the former Soviet Union. (A notable exception has been Paul Volcker 1990.) The new nations formed from the wreckage of the Soviet Union are busily planning to establish their own central banks, and the Bank of England and the Bank of France are training aspiring central bankers (Norman 1991a).

It is extremely unlikely, however, that a standard type of central bank will provide a credible currency in the former Soviet Union. After all, central banks are responsible for the dire condition of the ruble and the weak condition of all other East European currencies. We who live in Western nations, most of which have relatively good central banks, tend to forget how rare good central banks are. Western central banks are the star pupils of the class. They produce convertible currencies that depreciate "slowly." However, for most of the 99 nations that the World Bank classifies as low- and middle-income, central banks produce inconvertible, unsound currencies. For example, in those nations, average annual inflation was 16.7 percent from 1965 to 1980 and 53.7 percent from 1980 to 1989.

To issue a fiat currency that functions properly, a central bank must possess credibility. That will be difficult in the former Soviet Union. For one thing, its historical experience does not inspire hope. Russia has had a government currency issue since 1768, and a central bank since 1860. However, it has had a fully convertible currency for only 35 of those years. The last year of convertibility was 1914. After that, Russia had something approaching sound money only from 1922 to 1924, in the early days of the chervonets currency. A sound, convertible central bank currency is not part of the Russian culture or memory.

Furthermore, the recent behavior of the Soviet (now Russian) central bank behavior has made most citizens distrustful of the ruble.

In early 1991, 50 ruble and 100 ruble bank notes were demonetized. Most persons holding 50 ruble and 100 ruble notes were able to exchange them for an equivalent amount of smaller denominated rubles, but 10 billion to 12 billion rubles were confiscated by officials who determined that they had been obtained through "speculation" and other illegal means (Peel 1991).

In addition to a bad memory and mistrust of the central bank, citizens in the former Soviet Union and other post-communist nations have little trust and confidence in any government institutions (Engelberg 1992). A distinctive feature of the communist regimes was the overall mistrust that penetrated all relationships in society. The relationships among authorities and economic agents have been ones in which each has attempted to mislead the other with false and biased information (Major 1991). With decades of low credibility and mutual irresponsibility of authorities and economic agents, it is hard to imagine that that conditioning can be overcome quickly and credibility established at a central bank. Without credibility, a central bank will lack a necessary condition for the establishment of a sound, convertible currency.

Many believe that once Russia and other former Soviet republics join the International Monetary Fund (IMF), the credibility problem will be solved. That is a false hope. Let us look at recent experience of Yugoslavia, which has been a member of the IMF since 1945. The experience of Yugoslavia shows that, in an environment that has many similarities to that in the former Soviet Union, good behavior, credibility, and sound money have proved as illusive as the holy grail (Hanke and Schuler 1991a).

In December 1989, the monthly inflation rate was 50 percent in Yugoslavia, and for the entire year it had been 2,720 percent. Armed with an IMF stabilization plan, Yugoslavia introduced a currency reform in December 1989. It established a "hard" pegged exchange rate of seven dinars per German mark. To maintain the peg under conditions of low credibility, real lending rates were about 40 percent and real deposit rates were about 25 percent per year in most of 1990. Although inflation came down in Yugoslavia during 1990, the rate remained much higher than in Germany. Hence, the dinar became grossly overvalued and the Yugoslav economy slumped into a deep depression. Eventually, Yugoslavia had to give up on the hard peg and inflation soared (see Silber 1992).<sup>3</sup>

<sup>3</sup>For information about the scandals afflicting the National Bank of Yugoslavia in 1991 and 1992, see Emsberger (1992), Sudetic (1991), and World Bank (1989).



## Conclusion

Unlike a central bank, the currency board system in the form we propose would provide the former Soviet Union with a currency that would serve as a satisfactory store of value, medium of exchange, and unit of account. In doing so, it would lay the foundation for the development of a banking system in which banks could eventually issue their own notes that competed with those issued by a currency board. Therefore, if the former Soviet Union is to make a transformation from socialism to capitalism successfully, it should utilize the currency board system. Indeed, that system should play a central role in the transformation process.

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## THE BENEFITS AND COSTS OF CURRENCY BOARDS

*Allan H. Meltzer*

Steve Hanke and Kurt Schuler have written another interesting paper on currency boards. I agree with most of what they say. Like them I believe that, currently, a currency board would be a better foundation for the monetary system of Russia and other former Soviet states than a central bank, commodity money, or free banking.

This is inevitably a judgment. Economic theory does not permit us to say that a currency board is always an optimal arrangement or when it would not be. No one has described the circumstances under which a currency board, or more generally a fixed exchange rate system, is optimal. Hanke and Schuler suggest that information, credibility, and the size and strength of the banking system are relevant for the choice. These are surely some of the relevant criteria.

### Establishing a Currency Board

The main point on which I disagree with Hanke and Schuler concerns the method of introducing the currency board. They set up a parallel currency with full backing. The new money is distributed equally to everyone and circulates along with the existing currency at a fluctuating rate.

To me, the more appealing way is also more direct. Russia's central bank should acquire foreign exchange by selling Russian assets for foreign exchange until it has sufficient reserves to fix the exchange rate against a reserve currency, close the central bank, and offer to exchange rubles for the reserve currency on demand. These reserves would be invested in foreign securities so they earn income.

Since I agree with most of what Hanke and Schuler say, I want to take up some issues that they do not address. I will discuss, among

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others, budget problems, the inconsistency of trying to fix both nominal wages and the exchange rate, the absence of a lender of last resort, and the pro-cyclicality of money under a fixed exchange rate system. Several of these problems arise in any fixed exchange rate system, but the chief advantages of a currency board—such as heightened credibility, relative certainty about the external value of money, and elimination of discretionary action—impose costs as well as benefits under some conditions.

### Budget Problems

There are two budget problems. One arises from the loss of inflation tax revenue. The social benefits of lower inflation contribute to welfare, but the loss of revenues must be offset or the budget deficit will increase. This brings us to the second budget problem—the need to close the budget deficit when the currency board is established. Government borrowing cannot be larger than the amount that can be financed from domestic saving and foreign lending. The use of saving to finance government spending will have consequences for resource use, efficiency, and future living standards. A currency board can operate if these costs are acceptable, but it cannot survive if the budget deficit is too large relative to the available nonmoney financing.

### The Problem of Inconsistency

Many proposals for stabilization in Eastern Europe fix both the nominal wage rate (or nominal wage rates in the state industries) and the exchange rate. Hanke and Schuler are silent about wages, but the issue is too important to ignore.

A system with fixed nominal wage rates and fixed nominal exchange rates has been proposed in a recent study (Fischer and Gelb 1991) and adopted in Poland and other countries. This system is inconsistent. The economic system cannot in general reach a stable equilibrium at full employment with two fixed prices. Equilibrium is indeterminate. Whether prices fall, rise, or remain unchanged—and whether there is persistent unemployment—will depend on where the exchange rate and the wage rate are set. The reason is that the exchange rate determines the money stock and the price level. Therefore, employment and real wages will be determined by the fixed nominal wage and the fixed exchange rate. A currency board cannot devalue to resolve the problem.

In general, nominal and real wages must be sufficiently flexible to maintain unemployment at a politically acceptable rate. Otherwise pressure for devaluation is likely to destroy a currency board system.

### Absence of a Lender of Last Resort

A currency board does not permit the government to serve as lender of last resort. This problem arises because domestic bank deposits can be converted during a financial panic into domestic currency and then exchanged for foreign currency. Usually, currency reserves are much smaller than deposits, so this adds to the panic and the bank run. Two main solutions to this problem have been used in other contexts. The government can arrange standby borrowing facilities, as I believe principal Scottish banks did during the so-called free banking period. Or the currency board can ask the government to suspend foreign exchange payments as the Bank of England did on several occasions in the 19th century.

### Shortcomings of a Fixed Exchange Rate System

A currency board has the disadvantages associated with any fixed exchange rate system. We know that fixed exchange rates are not an optimal arrangement under all circumstances or for all countries. Money growth is pro-cyclical, as under a classical gold standard. Export booms produce more rapid growth of money, raising domestic prices and encouraging imports, reductions in money, and a subsequent fall in prices. This suggests that with less than fully flexible prices of goods and services, the variability of output may be above an attainable minimum. Also, there is a risk of changes arising from inflation, disinflation, or changes in real exchange rates abroad. These problems are not unique to a currency board arrangement; they arise in any fixed exchange rate system.

No one can establish that any fixed exchange rate system, including a currency board, is optimal for Russia or other former socialist states. Further, not enough is known about the dynamics of the disinflation process to predict the costs of a permanent disinflation or the length of time required to make the benefits of disinflation larger and more apparent to the public than the costs.

A currency board would lower the costs of achieving credible disinflation, particularly if the government adopts a fiscal program that reduces the deficit to near zero. This allows domestic saving and foreign borrowing to be used for investment and economic development—including productive government investment in infrastructure.

Limiting the currency issue to the amount consistent with foreign exchange purchases and sales restricts the government's ability to finance future deficits. This is a step toward a time-consistent policy.

## Conclusion

Unlike dollarization, a currency board retains the seigniorage and the value of lost or destroyed currency for the home country and satisfies nationalistic desires for a home country currency. As in any credible fixed exchange rate system, the currency board provides the public good of enhanced stability of the internal and external value of money. By allowing a parallel foreign currency (the dollar) to be used domestically, the government can augment the credibility of the currency board. The advantages of a currency board are purchased at the costs associated with any fixed exchange rate regime. For Russia, these costs seem to me much lower than the benefits from credible disinflation and a strong commitment to stability of internal and external money values.

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## EURODOLLARS: A TRANSITION CURRENCY

*A. James Meigs*

### The Problem

What can the people and firms in the former Soviet republics and the newly independent Eastern European republics, each with its own untested national currency and poorly developed banking system, use for money in trading with each other and with the rest of the world?

When the Soviet Republics were parts of one large country, exchanges of goods and services among them were directed from Moscow and were paid for with rubles and with barter trading. All of the republics had a large fraction of their economic activity dedicated to inter-republic trade, partly because Soviet plants were geographically specialized (Peck and Richardson 1991, p. 20). Much of the trade of Eastern Europe was also oriented toward Moscow in the Council for Mutual Economic Assistance (COMECON or CMEA).<sup>1</sup>

Under the old regime, production was organized so that a tractor factory near Moscow, for example, had to depend for wheels upon a single source in Ukraine. Now that Russia and Ukraine are separate countries, buying wheels for the tractors has become an international trade transaction. If the Ukrainian factory managers are unwilling to accept Russian rubles or Russian goods in exchange for the wheels, tractor production in the Russian plant will be stalled until the

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<sup>1</sup>According to Stanley Fischer and Alan Gelb (1991, p. 97), "At the start of the reform process, about half the exports of the Eastern European nations went to countries in the COMECON or CMEA system, with the smaller countries mostly exporting manufactured goods and importing energy and raw materials from the USSR."



managers find another wheel factory that will accept rubles or trade goods. Meanwhile, tractors sit outside the plant without wheels. In 1991, a piano factory in Czechoslovakia stacked up pianos all over the plant, hoping old customers in the Soviet Union would find ways to pay for pianos.<sup>2</sup>

Much of the trade within COMECON was an inferior use of resources, if it had been valued at world prices and costs. Nevertheless, these countries must continue to exchange goods and services with one another for their mutual benefit. The terms and volumes of this trade remain to be determined by competition in world markets. Perhaps even more importantly, Eastern Europe and the ex-Soviet republics must open trade with the rest of the world as rapidly as possible.

In writing about the Soviet economy before its 1991 disintegration, Richard Cooper (1991, p. 116) stated, "The opening of the Soviet economy should be an integral part of the domestic economic reforms from the outset and not delayed until many of the other reforms have become effective." He emphasized that foreign competition would strongly reinforce other measures for establishing effective competition; a flexible, innovative economy requires competitive markets to transmit information on changing demands and technological developments through price signals. He also noted that opening the economy through early introduction of currency convertibility would encourage alignment of Soviet prices with world prices from the beginning. Finally, he pointed out that opening the economy to imports would provide goods for workers whose incentive to work is adversely affected by shortages and would increase the quality and quantity of inputs available to Soviet enterprises.

All of Cooper's points on the importance of opening markets clearly apply to Eastern Europe as well as to the ex-Soviet republics. An early opening of their economies to one another and to the rest of the world is essential to progress on all other aspects of their transition from centrally planned economies to market economies. But what will they use for trading currencies?

<sup>2</sup>The tractor factory story is from an anecdote told by Marshall Goldman at a Harvard Club of Princeton dinner (8 November 1990). Ukrainian managers had already balked at being paid in rubles for wheels, although Ukraine was still part of the USSR. I don't know whether or not tractors are still sitting outside the plant without wheels, but I doubt that Ukrainian managers would be any happier today to be paid in rubles. I heard the piano factory story in Prague in November 1991, from an American businessman who had just visited a piano factory. Upright pianos, formerly a standard item for sale in the USSR, were stacked wherever there was any vacant space. The managers had chosen to continue producing upright pianos, until they ran out of storage space, rather than shut down the line. They had plenty of orders for fine grand pianos from Western European customers.

Before the Soviet Union dissolved, the ruble was rapidly depreciating in purchasing power, was subject to brutal so-called currency reforms, and was barely convertible even into domestic goods. Ruble prices were very poor guides for allocating resources. The ruble's market standing under new management has yet to be refurbished. The currencies of the other newly independent republics and the banking systems supporting them are in various stages of development and have been little tested in international trade.

To reestablish trade relations within the former Soviet Union and COMECON, and to develop new trade with the rest of the world, the newly independent republics need an international trading currency, and they need it now.

### The Solution

My proposed solution to the currency problem is to use Eurodollars (or another Eurocurrency) for international transactions, with free trade, free capital movements, independent currencies, full currency convertibility, and market-determined exchange rates.

This solution does not have to be applied by all of the countries at the same time. It is instead a prescription for one country, or a few countries, to follow while the ultimate monetary arrangements for the group evolve. It would allow the people and firms of the republics to choose among competing monies: national currencies—largely for domestic use—and dollars—for trade and capital movements among republics and with the outside world. The use of Eurodollars would provide valuable information on world prices and interest rates to entrepreneurs and consumers for guiding resource allocation, not only for internationally traded goods, but throughout the economy of each republic.

Why Eurodollars and not just dollars? A Eurodollar is a dollar deposited in a bank outside the United States. In the foreign exchange markets, differences between Eurodollars and dollars in U.S. banks are not important. A dollar is a dollar is a dollar in foreign exchange trading. But for international trade transactions and for international investment transactions, Eurodollars offer some transaction-cost advantages. They are not so heavily burdened with the reserve requirements, deposit insurance premiums, capital requirements, prohibitions on certain classes of transactions, SEC registration requirements, and other regulations that handicap U.S. financial institutions in international competition. Consequently, Eurodollar markets operate with narrower interest-rate spreads in many dollar transactions than U.S. banks can afford to offer at home. The Eurocurrency markets are intensely

competitive, with thousands of traders continually searching worldwide for the lowest-cost solutions for financial problems. That should be good for potential users in the ex-Soviet republics and Eastern Europe.

Much of what will be said here about Eurodollars could be said also about Deutsche marks. For many reasons, propinquity for one, people in the newly independent republics might prefer to use marks instead of dollars for international trade and investment transactions—or to use marks along with dollars. That would not contradict the argument of this paper. The key conclusion of this paper is that the newly independent republics do not have to rely solely on their own currencies or on their own banking systems in order to trade with one another or with the rest of the world. The rest of this paper will discuss use of Eurodollars, with the understanding that Deutsche marks or some other currency might replace dollars if that is what people in the market prefer.

Solutions to many of the monetary problems of the former Soviet Union and Eastern Europe that Western advisers agonize over are right under their noses in the Eurocurrency markets. These advisers may overlook the advantages of Eurocurrencies and Eurocurrency markets for the newly independent republics because they are accustomed to relying on governments and international agencies to manage the monetary machinery for international trade and capital transactions.

The Eurocurrency markets have long escaped efforts of governments to manage them. The Eurodollar market developed in the 1950s largely as a way for Soviet bloc countries to keep their dollar balances safe from being blocked or seized by the U.S. government (Yeager 1976, p. 431). It ballooned in the 1960s as U.S. banks and corporations struggled to avoid U.S. interest-rate controls and capital controls. To a considerable degree, the Eurocurrency markets still operate outside of the governmentally installed and managed systems that preoccupy many academic and government experts on international monetary arrangements. The Eurocurrency markets are thus likely to be viewed as problems rather than as resources by some policymakers and their advisers.

Just how powerful and how versatile these market resources have become in recent years may not be fully recognized even by people who are deeply immersed in their daily operations. The Eurodollar market, and its offshoots, such as the Eurobond market and the Asian dollar market, have undergone a forced-draft evolution since the 1960s in order to cope with inflationary and recessionary shocks (Meigs 1990). Their evolution, like that of world financial markets in

general, has gone in four major directions: (1) the time required to react to new information about economic policies and prospects has shortened; (2) new instruments and facilities for hedging against what cannot be forecast or quickly unwound have appeared; (3) securitization of lending and borrowing has increased; and (4) global market interrelationships that cushion shocks and distribute risks more widely have developed. In trying to solve their financial problems, Eastern Europe and the ex-Soviet republics should take note of these important changes.

The arguments of this paper should be viewed more as predictions than as recommendations. Although some expert advisers may overlook the potential usefulness of the Eurocurrency markets, I believe people who have their own fortunes at stake—the emerging capitalists and business managers of Eastern Europe and the ex-Soviet republics—will enter these markets to help them break out into the broader world.

### Why Not Hire a Banking System?

It is widely recognized that Soviet-style banking systems require drastic restructuring if they are to serve the needs of consumers and firms in a market system (Brainard 1991). For years banks were used largely to monitor state enterprises' compliance with central plans. In the Soviet Union and Eastern Europe, banks passively loaned to money-losing state enterprises and acted as liquidity generators or engines of inflation for central governments. In short, banks really were not financial intermediaries in the Western sense.

Western advisers are generally pessimistic about the prospects for reforming and liberalizing the banking systems of Eastern Europe. Ronald McKinnon (1991, p. 121), for example, writes, "In the optimum order of liberalization, . . . the development of ordinary commercial banking may well have to be deferred for some years after liberalization begins, and to wait until overall monetary and fiscal control is secured." Stanley Fischer and Alan Gelb (1991, p. 98) write, "Even more so than other sectors, financial markets depend on underlying legal and informational systems and skills that barely exist at the start of reform." The time chart for the phasing-in of reform for finance and banking shows a four-year period of "preparation" followed by another two years of liberalization (p. 102).

The obstacles to developing efficient banking systems for Eastern Europe and the former Soviet republics that Brainard, McKinnon, Fischer and Gelb, and others identify are indeed formidable. However, the transition to market economies need not wait for each republic to build its own Western-style banking system. Banks in the

Eurocurrency markets will be able to provide a large part of the banking services that the people and the businesses of the republics need, while the banks of Eastern Europe and the ex-Soviet republics learn their new roles. Eurobanks can mobilize deposits, extend credit, transfer funds, buy and sell foreign exchange, provide market information, trade in the securities of ex-Soviet and Eastern European firms, underwrite new issues for them, aid in risk management, and help to teach their ex-Soviet and Eastern European bank correspondents how to run banks. The governments of the republics should welcome the Eurobanks' assistance in accelerating their transition to market economies.

Eurobanks should not be expected to lend with enthusiasm to governments of the republics, or to government-owned enterprises, while an estimated \$65–70 billion in debts of the former Soviet Union remain to be settled. But these debts were incurred by governments. Governments in many parts of the world have proved to be notoriously poor credit risks. However, new loans to privately owned enterprises, in countries that protect property rights, will be much more attractive business for Western banks. Credit risks may be higher for a time than on loans in these banks' home countries, but returns and opportunities for asset growth should be commensurately higher also.

Using Eurodollars, without exchange controls, would greatly speed up the clearing of international trade and capital transactions. That would be extremely beneficial to people and firms who cannot afford to wait weeks for transactions to clear, as many must do now. Efficient machinery for settling and financing international trade and investment transactions is already in place in the Eurocurrency markets.

Most world trade and international investment transactions are settled in dollars (Campbell 1990, p. 2–28). Although other currencies, such as the mark, account for a growing share of international transactions, the dollar is still preeminent. No other country can yet match the size, depth, and resiliency of the U.S. economy and U.S. financial markets on which the dollar is based. The dollar is always convertible into a wide range of U.S. goods and services and financial assets. It is welcome everywhere.

Many of these international transactions come into focus in the Clearing House Interbank Payments System (CHIPS) in New York, which processes payments messages with a daily average value of about \$1 trillion. Most of the transactions processed by CHIPS are related to the settlement of foreign exchange transactions and international trade and investment activity (U.S. Treasury 1991, p. III–32). With CHIPS and with all the banks and other institutions

of the Eurocurrency markets available to them, the republics and their banks do not have to erect much new machinery for international transactions. They merely need to get out of the way so their people can use the international payments machinery that already exists, as most other people in the world do when they have international transactions to execute.

### Turning to the Eurodollar Market Would Speed Reform

One of the major advantages of using Eurodollars for settling international trade and investment transactions is that it could begin as soon as one or more countries are ready to try it. The republics cannot all be expected to move together to a new monetary system. Not one is ready now to join a new area-wide payments system, such as the European Monetary Union (EMU). Some of them may never be ready.

In the interim, countries such as Poland or Ukraine could allow their people and firms to conduct their external trade in Eurodollars. Their governments would not have to set up exchange controls, or operate exchange stabilization funds, or to borrow from the IMF, or even to hold foreign exchange reserves, if they would allow full convertibility and would allow the markets to determine the exchange rates between their currencies and the dollar or Deutsche mark.

A country would not have to yield any of its national sovereignty over its domestic currency. Nor would it have to peg its currency to the dollar or to any other currency, unless it chooses to do so. Free trade and decentralized monetary management would provide maximum scope for policy innovation and experimentation in individual countries.

Evolution of the new trading and payments system would be market-driven. Traders, for example, could initiate transactions with their customers or suppliers to be settled in dollars and could arrange to hold or obtain dollars in banks in their own countries or any other country. Entrepreneurs will have powerful incentives for finding these solutions, if they are free to do so. They have more detailed knowledge of their domestic and international markets than any government could have.

The Eurocurrency markets would provide an automatic, nonpolitical system for grading the republics on their performance in monetary and fiscal policies and on other transition policies that would influence risks and returns. Another of the advantages of the Eurocurrency markets, therefore, is that they would be open to the people and firms of poorly governed republics as well as to the

well-governed—at varying prices. Hundreds of experts in appraising country risks would judge the paper offered them by entrepreneurs and firms of Eastern Europe and the former Soviet republics. People in the well-governed republics accordingly would pay less for credit and other Eurocurrency market services than would people in republics that were slow to master transition problems. That should provide compelling incentives for governments to do whatever would improve access to the Eurocurrency markets for their entrepreneurs and firms. Furthermore, the Eurocurrency markets would supply governments of the republics with market checks on the judgment of IMF officials and other international civil servants who might have set conditionality tests for them.

### Entrepreneurs Will Lead If They Are Given Their Freedom

The proposal to rely on Eurodollars or marks for international transactions assumes that the republics will depend heavily on entrepreneurs to supply growth in output and employment by starting new businesses. Many of the large state-owned enterprises are stranded whales that may not survive in their current form even if privatized. As Fischer and Gelb (1991, p. 92) point out, many were built along Soviet lines. They were organized as large monopolistic firms, in order to facilitate central control. Their international trade was shaped by state agreements rather than by market considerations. But they now employ skilled managers, engineers, and workers who have never had enough freedom to use their talents fully. Many of these people could become entrepreneurs or go to work for new businesses. They own a large stock of underemployed human capital that is ready to be upgraded.

The new businesses should be seen from the beginning as operating in wider markets than any one nation. They must buy resources wherever they can find them and sell wherever they can find buyers. Why not let them make their own arrangements on prices and exchange rates without restrictions? For example, a manufacturer could sell his products for dollars or marks in a neighboring or distant country, basing negotiations on what he can find out about world dollar prices for similar products and for the resources needed to produce them.

Given unrestricted access to Eurodollars or Euromarks, the managers of an exporting firm would not have to worry about the many exchange rates between their country's currency and the currencies of their customers' countries. Nor would the firm have to tie up capital by holding balances in these other currencies. The firm would use

dollars as a vehicle currency instead (see Swoboda 1968). Getting the dollars to pay the exporter would be the customers' problem. No dollars, no deals. Getting their local currency for the dollars would be the exporters' problem—if and when they want to convert. They might use the dollars to buy their materials and equipment from outside. A free market in the local currency then could tell the managers whether they had been using the right production costs in their planning, or producing the right products, or buying their inputs in the right markets to be efficient in the world market.

Entrepreneurs would discover the dollar or mark exchange rates that clear the markets, instead of having to use exchange rates imposed on them by governments. Governments will have more than enough to do trying to maintain stability in the domestic purchasing power of their currencies without trying to manage exchange rates too.

Market-determined exchange rates would insulate individual countries from much of the harm done by monetary policy errors in other countries. Individual countries would have an incentive to strive for stable-value currencies in order to maximize benefits from international trade and investment.

### Some Alternatives

Many Western academic economists, politicians, and international civil servants would prefer to see the republics of Eastern Europe and the former Soviet Union adopt some variant of the Bretton Woods System, the EMU, or a common currency (Bergsten and Williamson 1990, McKinnon 1991, Shelton 1991). Some of the people giving this advice have been employed for most of their careers in trying to improve elaborate monetary superstructures in the West. It is natural for them to carry this intellectual capital with them when they go East, but applying their advice would require time-consuming, arduous negotiations among the republics. Macroeconomic policies would have to be coordinated, exchange rates would have to be adjusted and supervised, and some form of centralized authority would have to be sanctioned.

These grand solutions are not feasible near-term alternatives for Eurodollars in international transactions, given the difficulty of achieving agreement among new governments that have widely differing political foundations, poor understanding of international markets, and low confidence in one another's willingness to abide by agreements. Who would soon trust officials in Moscow, or Kiev, or Minsk, or some other power center, to run a sound monetary policy to which all of the member republics must conform? Mistakes at the center would have painful consequences over the whole area included



in the monetary union, as did mistakes made in Moscow before 1991. Leaders of the republics have abundant reasons for distrusting central authorities.

Constructing a monetary union and/or a common currency, with or without the Soviet republics, would take far too long to be of much use in opening international trade and investment. The governments and central banks of Western Europe, despite their long experience and their armies of skilled monetary technicians and negotiators, have not yet been able to agree fully on an acceptable common currency after years of trying.

Another proposal popular in the West is to peg each republic's currency to one strong foreign currency, such as the dollar or the mark, through use of a currency board or through a central bank (Hanke and Schuler 1991, Hetzel 1990, Jordan 1991, Meltzer 1991). Pegging a currency to the dollar or the mark would mean, in effect, that dollars or marks would be used for international trade and investment transactions. That would indeed solve the problem of finding a currency for international transactions. Furthermore, it should not interfere with use of the Eurocurrency markets.

Pegging to a strong currency would provide world price information for guiding resource allocation decisions within each country and would automatically force domestic wages and prices toward alignment with world wages and prices. It might provide more nearly stable exchange rates for international trade and capital movements than would a system of freely floating rates.

Its chief advantage is that it would give credibility to a government's desire to maintain domestic price stability, by taking monetary policy decisions out of the government's hands and putting them into the hands of a more respectable government. That is the major argument for current arrangements in the EMU, in which the currencies of member countries are essentially pegged to the mark.

Although the contribution to credibility of domestic monetary policy would be desirable, pegging to another currency at the wrong exchange rate could be too great a shock in some countries. It might require too sharp a deceleration in domestic money growth. There are real costs in a sudden deceleration of money growth, as U.S. experience has shown. The Chileans found this out too, when they pegged to the dollar (Friedman 1992, pp. 234–44). Or it could lead to domestic inflation, as it did when the United Kingdom entered the European Monetary System (Walters 1991). The past history of prices in the republics would provide poor guidance in setting the initial official exchange rates. A country that already has a low inflation rate might peg to the dollar or the mark with small domestic adjustment

costs. But countries with high inflation rates could find the transition to a pegged system more costly in output losses and unemployment than would be politically acceptable.

Furthermore, most of the successful recent experiments with pegging a national currency to a strong currency such as the dollar have been conducted in small countries—Hong Kong or Singapore, for example—in which foreign trade is overwhelmingly important. Russia and Ukraine, however, are not small countries. They are large, proud countries in which foreign trade is important but not dominant. Operating a pegged system could lead to the exchange controls and trade interventions that these countries are trying to escape. Whether Westerners approve or not, the newly independent republics are unlikely to cede control over their domestic currencies to outsiders in the near future.

### When and How to Establish Currency Convertibility

How soon and how much entrepreneurs and firms in the newly independent republics can benefit from employing Eurodollars or marks will depend crucially upon when and how the currencies of their countries become convertible. Although most Western experts agree that early convertibility of some sort is essential for the republics' transition programs, many of them advise limiting convertibility to transactions on current account (merchandise trade and service-related transactions) at first. Not until later, after domestic financial markets have matured and various fiscal and monetary stabilization objectives have been achieved, should convertibility on capital account (international investment transactions) be permitted (see Bergsten and Williamson 1990; Cooper 1990, 1991; Feige 1991; Frenkel 1990; Harberger 1990; and McKinnon 1991). Holders of this general view are afraid that if the people of the republics were permitted to invest abroad or to hold money in banks abroad, the savings of their countries would flow out.

Bergsten and Williamson (1990, p. 38) expressed a conventional view when they said, "Unrestricted convertibility enables capital to flee from where it is needed, which is at home in the period of economic reconstruction that lies ahead." Ronald McKinnon (1991, p. 122) suggested another reason for limiting convertibility on capital account when he said that if newly liberalized enterprises in the Soviet Union "could freely borrow (or deposit) abroad," domestic credit restraints would be undermined. I believe that limiting convertibility on capital account for either of these reasons would be like restricting the flow of air to divers in order to save on fuel costs for the air compressors.

In his advice on opening the Soviet economy, Richard Cooper (1991, pp. 118–19) wrote: “Soviet enterprises and households should have free access to foreign exchange for purchase of foreign goods and services, but not for the purpose of buying assets abroad or holding foreign currency.” A system of monitoring would be required to ensure that foreign currency would be used for permitted purposes. In practice, this might require a limit on the amount of foreign exchange citizens could acquire for foreign travel. But Cooper made a major concession when he said, “It will be necessary, however, to have some procedure for Soviet enterprises to invest abroad in distribution and servicing channels for the sake of promoting exports. In today’s world some foreign investment is often required for effective marketing of national products” (p. 119).

If we recognize money as a capital asset in a portfolio of assets, dollars or other foreign currencies held by people and firms of the ex-Soviet republics and Eastern Europe can be seen as crucial investments for the sake of promoting exports (and imports). The currencies of the ex-Soviet republics and Eastern Europe are not yet widely acceptable for international transactions inside or outside the former Soviet bloc. Other currencies, including the Eurodollar or the mark, are clearly superior as trading currencies at this time. Exporters and importers, wherever they are, must invest in a stock of one or more of these currencies in order to conduct trade and investment transactions. Therefore, limiting the opportunities of ex-Soviet and Eastern European people and firms for acquiring dollars, by enforcing capital controls, in effect would limit their opportunities for exporting and importing goods and services and for attracting capital investment. That would be like limiting their air supply.

Limiting convertibility to certain classes of transactions is an outdated mercantilist approach that has succeeded mainly in building intrusive bureaucracies that obstruct trade and capital flows. Exchange controls require bureaucrats to examine transactions to determine whether or not they comply with the regulations, thus slowing the flow of payments. They also induce transactors to use time and resources to circumvent the controls. Business managers who earn dollars or marks by selling glassware or auto parts in another country are unlikely to bring all of the proceeds back into their country if they have to turn part or all of them over to the government and then have to get into line to buy them back the next time they need foreign exchange.

It is doubtful whether Western advisers have adequately weighed the expected benefits of attempting to limit capital flights through abridging property rights with exchange controls against the expected

benefits of protecting property rights across the board. This calculus is especially doubtful when one considers that even advocates of exchange controls on capital transactions must realize that they leak (McKinnon 1991, Frenkel 1990, and Harberger 1990). Yeager (1976, pp. 138–57), who is obviously not an advocate, presents a devastating compendium of methods used in various countries for avoiding capital controls. One of the few Western advisers to recommend early convertibility on capital transactions is Alan Walters (1991, p. 131), who says, “I would argue also for capital convertibility in order to bolster confidence in the newly free currency.”

A policy of restricting convertibility for capital transactions would undermine efforts to establish the secure private property rights that are crucial for success in the transition to market economies. For example, if a firm were to receive a carload of toys from another country in exchange for a shipment of textiles, there would be no question about who owns the toys or what the firm could do with them. But if the firm were to be paid dollars, or other foreign currencies, many Western advisers assume that all or part of the foreign currencies should be turned over to the government. Property in the form of foreign exchange would not receive the protections accorded to toys. Alan Walters (1991, p. 12) says in rebuttal:

Another way of looking at the issue is to say that restricted capital convertibility ensures that it is still possible for the government to draw a ring fence around its subjects and expropriate them at will. . . . I would suggest that capital convertibility, whether with pegged or free exchange rates, as such is a useful restraint on the power of governments to rob their subjects.

When one considers the importance of secure property rights for motivating people to work, save, and invest, a case could be made for allowing the people of the newly independent republics to hold their financial assets wherever they are satisfied with the risks and returns, whether in their own countries or elsewhere. The new capital they would generate by working harder and more productively, and the capital they could attract into their countries from outside, would far exceed the small stock of savings they have been able to accumulate working under their former rulers. It would be far more beneficial for the republics to encourage people to employ their human capital fully than it would be to impound their financial savings.

Foreign investors who want to bring capital in or nationals who want to bring their flight capital back would be encouraged if they believed there would be no restrictions on their freedom to take profits out, or to withdraw capital from losing propositions. Exchange controls have seldom, if ever, worked as advertised to prevent capital

flights where people have had an incentive to send their capital abroad. The way to prevent capital flights is to apply domestic policies that protect property rights, encourage investment, and maintain stable purchasing power in domestic currencies. Latin American countries that are taking steps along these lines find flight capital returning.

### Getting Dollars to Trade<sup>3</sup>

Where will the people and firms of Eastern Europe and the former Soviet republics get dollars to trade?

First, there already is a substantial stock of dollars hidden away in Eastern Europe whose owners have been hesitant to bring them to light. The unusual outflows of currency from Federal Reserve banks in recent years suggest that some U.S. residents have shipped bales of dollars to friends and relatives in their ancestral homelands. Furthermore, the Institute of International Finance has estimated that Soviet state-owned exporters kept about \$14 billion of export earnings abroad in 1991, instead of remitting them to the central government in Moscow (*Wall Street Journal* 1992). There may be other such hoards to be retrieved, for some ex-Soviet officials have been in the Eurodollar markets since the 1950s (Yeager 1976, p. 434).

Second, the people and firms of these countries will have assets that they can exchange for dollars or marks after state-owned businesses and other property are privatized. They also should be able to use some of these assets as collateral for borrowing dollars or marks. This underscores the need for privatizing state property as rapidly as possible in order to supply everyone with a stock of negotiable assets.

Third, entrepreneurs will create new assets in the form of goods and services that they can sell in export markets for dollars. Financing these exports with dollars should be attractive business for American, European, and Japanese banks. Short-term trade finance is bread-and-butter business for banks.

Fourth, banks and investors in other countries will supply dollars for investments in these countries, once they are assured that property rights are secure and that there will be no restrictions on their ability to draw out earnings and principal. North American investors in particular probably will view some of the republics as turnaround opportunities, as some now view investment opportunities in Latin America.

<sup>3</sup>This section draws on suggestions made by Robert Hetzel and Charles Plosser (see Plosser 1991).

## Conclusion

The newly independent republics of the former Soviet Union and Eastern Europe desperately need broadly acceptable, convertible currencies for settling international trade and investment transactions, both within the old Soviet Bloc and with the rest of the world. Their national currencies and their developing banking systems lack the necessary acceptability and experience to serve them well in international trade and investment transactions. Yet opening international trade is crucial to the success of all of their other transition policies.

Many Western advisers on transition policies recommend that the republics build multilateral currency arrangements similar to the European Monetary Union or a common currency for several or all of the republics. Other Western advisers recommend that the republics peg their currencies to a strong Western currency such as the dollar or the mark through a currency board or a central bank. Both of these measures would provide them with dollars or marks for settling international transactions. Although such institutions may ultimately evolve, the republics do not have time to wait for them before finding a way to enter world markets.

The people and firms of the republics are more likely to find an interim solution to their need for international trading and investing currencies in the Eurocurrency markets. The Eurocurrency markets can supply dollars or Deutsche marks for settling international trade and investment transactions. They can supply rapid, efficient clearing of transactions. They also can supply financing for many transactions.

To expedite their transition to market economies by using Eurodollars, the governments of the republics would not have to create any new institutions. They merely would have to get out of the way and allow entrepreneurs of their countries to make their own arrangements. They would realize maximum benefits from use of the Eurocurrency markets if they would make their currencies fully convertible, avoid all exchange controls, permit free trade and capital investment, protect property rights, maintain stable domestic purchasing power for their currencies, and let their exchange rates be determined in free markets.

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