

## REFLECTIONS ON EXCHANGE RATE REGIMES

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The dramatic events in Asia, Russia, and Brazil during the past year have generated a torrent of commentary about exchange rates, hot money, exchange controls, and dollarization. As someone whose views about exchange rates in Asia have been vindicated (*Far Eastern Economic Review* 1998), who predicted that the Russian ruble would collapse shortly after midyear (Hanke 1998a), and who concluded that the Brazilian real would fall apart after the October 1998 presidential elections (Hanke 1997), I offer my thoughts as to why most of the commentary has either been misinformed or dead wrong.

Officials at the U.S. Treasury and the International Monetary Fund have misdiagnosed the patients and prescribed the wrong medicine in Asia, Russia, and Brazil. But that has not stopped them from telling a different story, one that is contradicted by the facts. In late January, for example, U.S. Deputy Treasury Secretary Lawrence H. Summers remarked, "The financial turmoil that has affected Asia, Russia, and Brazil in the past year would have been worse without the IMF" (Dow Jones 1999).

### The World's Changing Currency Landscape

To put reflections on exchange rates into perspective, it is instructive to consider recent changes in the world's currency landscape. Its morphology has been in a state of flux during the decade of the 1990s. Volatile hot money flows have battered pegged exchange rate regimes, causing volcanic-like eruptions in the European Exchange Rate Mechanism (1992–93), the Turkish lira (1994), the Mexican peso (1994–95), the Thai baht and the other Asian currencies (1997–98), the Russian ruble (1998), and the Brazilian real (1999).

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Balkanization has also been a prominent force in the 1990s. With the collapse of the Soviet Union, a large unified currency area was dismembered. In consequence, 15 national currencies officially circulate where the ruble once ruled. Much of the same occurred after Yugoslavia broke apart. Now five currencies circulate as legal tender in a region where one currency used to do the job.

The last time currency balkanization occurred on such a grand scale in Europe was during the monetary chaos that followed World War I. In 1914, Europe had 10 currencies, all with fixed gold parities and fixed exchange rates. By 1920, Europe had 27 paper currencies, none with a gold parity or a fixed exchange rate.

Even more dramatic than the trend toward balkanization has been that of unification. Argentina, Estonia, Lithuania, Bulgaria, and Bosnia have unified their domestic currencies with stronger anchor currencies by establishing currency board systems.<sup>1</sup> And in 1998, Indonesia and Russia flirted with currency board proposals.<sup>2</sup> Those two episodes merit special attention for the light they shed on the international politics of currency reform and the Machiavellian role played by the U.S. Treasury and the IMF. To many observers, the Clinton administration appeared determined to topple President Suharto through monetary chaos (*Singapore Straits Times* 1999). When President Suharto embraced the currency board idea in February 1998, the U.S. Treasury and the IMF opposed the idea and mounted a swift and massive counterattack. The Russian story was quite different, however. In August 1998, the Clinton administration was desperately trying to prop up the ruble and rescue President Boris Yeltsin. That is why a Russian currency board was viewed in a favorable light by the U.S. Treasury and the IMF. They knew that Bulgaria's currency board system had provided a quick fix for the hyperinflating lev in July 1997.

On January 1, 1999, 11 European countries embarked on the greatest monetary experiment of the century by unifying their national currencies and replacing them with a new currency, the Euro. This currency unification was accomplished by establishing a monetary union. The European Monetary Union has been followed by calls to

<sup>1</sup>Until the 1950s, orthodox currency board systems were widely used, particularly in Africa, the Caribbean, and Asia. In 1983, Hong Kong reestablished a currency board system, but it deviated from orthodoxy in several important ways, as do all the currency board systems introduced in the 1990s. All currency board systems have performed well even during civil wars. For a general discussion of currency boards and a more detailed explanation of their main features, see Walters and Hanke (1992).

<sup>2</sup>For a discussion of the Indonesian currency board episode, see Hanke (1998b) and Culp, Hanke, and Miller (1999). For the Russian episode, see Hanke (1998c).

establish other monetary unions, most notably among the Mercosur countries and among some Asian countries.

In addition to these dramatic changes in the world's currency landscape, Russia and Belarus are negotiating a monetary union in which the ruble replaces the "hare," and Argentina is considering dollarization—that is, officially replacing the peso with the U.S. dollar (Fidler and Warn 1999). Argentina's move has stimulated monetary unification discussions in Central and Eastern Europe, as countries in that region consider replacing their national currencies with the Euro or the U.S. dollar.

## Exchange Rate Regimes

There are three types of exchange rate regimes: freely floating rates, fixed rates, and pegged rates. Each type has different characteristics and generates different results. Although floating and fixed rates appear to be dissimilar, they are members of the same family. Both are free-market mechanisms for international payments.<sup>3</sup> With a floating rate, a monetary authority sets a monetary policy, but has no exchange rate policy—the exchange rate is on autopilot. In consequence, the monetary base is determined domestically by a monetary authority. Whereas, with a fixed rate, a monetary authority sets the exchange rate but has no monetary policy—monetary policy is on autopilot. In consequence, under a fixed rate regime, the monetary base is determined by the balance of payments. In other words, when a country's official net foreign reserves increase, its monetary base increases and vice versa. With both of these free-market exchange rate mechanisms, there cannot be conflicts between exchange rate policy and monetary policy. Consequently, balance of payment crises cannot occur. Indeed, under freely floating exchange rates and rigidly fixed rates, market forces act to automatically rebalance financial flows and avert balance of payments crises.

While both floating and fixed rates are equally desirable in principle, it must be stressed that floating rates, unlike fixed rates, do not perform well in developing countries because those countries usually have weak monetary authorities and histories of monetary instability (Hanke 1999). Indeed, currencies in developing countries rarely float on a sea of tranquility. Knowledge of this fact would, no doubt, have prompted IMF Deputy Managing Director Stanley Fischer to temper his remarks concerning Indonesia's float of the rupiah. On the day

<sup>3</sup>This explains why Milton Friedman, who is known for his advocacy of floating exchange rates, has also been a strong advocate of currency board systems and fixed exchange rates for developing countries (see Friedman 1973).

of the float, August 14, 1997, Fischer (1997) proclaimed, "The management of the IMF welcomes the timely decision of the Indonesian authorities. The floating of the rupiah, in combination with Indonesia's strong fundamentals, supported by prudent fiscal and monetary policies, will allow its economy to continue its impressive economic performance of the last several years."

Fixed and pegged rates appear to be the same. However, they are fundamentally different. Pegged rates are not free-market mechanisms for international payments. Pegged rates, such as those that were employed throughout most of Asia and in Russia and Brazil before the recent currency crises, require a monetary authority to manage both the exchange rate and monetary policy. With a pegged rate, the monetary base contains both domestic and foreign components. Unlike floating and fixed rates, pegged rates invariably result in conflicts between exchange rate and monetary policies. For example, when capital inflows become "excessive" under a pegged system, a monetary authority often attempts to sterilize the ensuing increase in the foreign component of the monetary base by reducing the domestic component of the monetary base. And when outflows become "excessive," an authority attempts to offset the decrease in the foreign component of the base with an increase in the domestic component of the monetary base. Balance of payments crises erupt as a monetary authority begins to offset more and more of the reduction in the foreign component of the monetary base with domestically created base money. When this occurs, it is only a matter of time before currency speculators spot the contradictions between exchange rate and monetary policies and force a devaluation.

## Hot Money and Exchange Controls

Hot money flows are principally associated with pegged exchange rates. Many analysts have misdiagnosed the hot money problem because they have failed to appreciate this all-important linkage. In consequence, they have prescribed exchange controls as a cure-all to cool off the hot money. That prescription treats the symptoms. It fails to treat the disease, which is pegged exchange rates. Until pegged rates are abandoned, there will be volatile hot money flows and calls to cool the hot money with exchange controls.

Paul Krugman (1998) is the most notable promoter of exchange controls. Alas, Malaysia's mercurial Prime Minister, Mahathir Mohamad, took Krugman's bait and imposed draconian controls on September 2, 1998. Krugman has now washed his hands of that deed, which is perhaps the most devastating critique of controls. But there is more.

Currency convertibility is a simple concept. It means residents and nonresidents are able to exchange domestic currency for foreign currency. However, there are many degrees of convertibility, with each denoting the extent to which governments impose controls on the exchange and use of currency.

The pedigree of exchange controls can be traced back to Plato, the father of statism. Inspired by Sparta of Lycurgus, Plato embraced the idea of an inconvertible currency as a means to preserve the autonomy of the state from outside interference. It is no wonder, therefore, that the so-called Red-Brown (communist-fascist) coalition in the Russian Duma has rallied around the idea of exchange controls and an inconvertible ruble. This also explains why the leadership in Beijing finds the idea so user friendly.

The temptation to turn to exchange controls in the face of disruptions caused by hot money flows is hardly new. Tsar Nicholas II first pioneered limitations on convertibility in modern times, ordering the State Bank of Russia to introduce, in 1905–06, a limited form of exchange control to discourage speculative purchases of foreign exchange. The bank did so by refusing to sell foreign exchange, except where it could be shown that it was required to buy imported goods. Otherwise, foreign exchange was limited to 50,000 German marks per person. The Tsar's rationale for exchange controls was that of limiting hot money flows, so that foreign reserves and the exchange rate could be maintained. The more things change, the more they remain the same.

Before more politicians come under the spell of exchange controls, they should reflect on the following passage from Nobel laureate Friederich Hayek's 1944 classic, *The Road to Serfdom*:

The extent of the control over all life that economic control confers is nowhere better illustrated than in the field of foreign exchanges. Nothing would at first seem to affect private life less than a state control of the dealings in foreign exchange, and most people will regard its introduction with complete indifference. Yet the experience of most continental countries has taught thoughtful people to regard this step as the decisive advance on the path to totalitarianism and the suppression of individual liberty. It is in fact the complete delivery of the individual to the tyranny of the state, the final suppression of all means of escape—not merely for the rich, but for everybody [Hayek 1944: 92n].

Hayek's message about convertibility has regrettably been overlooked by many contemporary economists. Exchange controls are nothing more than a ring fence within which governments can expropriate their subjects' property. Open exchange and capital markets,

in fact, protect the individual from exactions, because governments must reckon with the possibility of capital flight.

From this it follows that the imposition of exchange controls leads to an instantaneous reduction in the wealth of the country, because all assets decline in value. To see why, it is important to understand how assets are priced.

The value of any asset is the sum of the expected future installments of income it generates discounted to present value. For example, the price of a stock represents the value to the investor now of his share of the company's future profits, whether issued as dividends or reinvested. The present value of future income is calculated using an appropriate interest rate that is adjusted for the various risks that the income may not materialize.

When convertibility is restricted, risk increases, because property is held hostage and is subject to a potential ransom through expropriation. As a result, the risk-adjusted interest rate employed to value assets is higher than it would be with full convertibility. Investors are willing to pay less for each dollar of prospective income and the value of property is less than it would be with full convertibility.

This result, incidentally, is the case even when convertibility is allowed for profit remittances. With less than full convertibility, there is still a danger the government will confiscate property without compensation. That explains why foreign investors are less willing to invest new money in a country with such controls, even with guarantees on profit remittances.

Investors become justifiably nervous when they expect a government may impose exchange controls. Settled money becomes "hot" and capital flight occurs. Asset owners liquidate their property and get out while the getting is good. Contrary to popular wisdom, restrictions on convertibility do not retard capital flight, they promote it.

This type of capital flight (and unofficial dollarization) has been occurring on a grand scale in capital-starved Russia. Indeed, Russians swapped \$13 billion worth of rubles for greenbacks in 1997, a year in which the dollar-ruble rate was stable and inflation was falling rapidly. This unofficial dollarization amounted to a capital export that exceeded all capital imports to Russia in 1997. The actions of the Russian people indicate that, among other things, they anticipated the possibility of the imposition of exchange controls.

Restrictions on convertibility also promote other noxious activities. For example, if capital account convertibility is restricted or limited and convertibility on the current account is allowed, a two-tier currency market will be either formally or informally established. In that case, the "investment currency" will trade at a premium over the

price of the relevant foreign currency on the official market for current account transactions. With two prices for the same currency, there are profits to be derived from having capital account transactions “reclassified” as current account transactions. That ad hoc reclassification can usually be bought by crony capitalists, for a price.

Full convertibility is the only guarantee that protects people’s right to what belongs to them. Even if governments are not compelled by arguments on the grounds of freedom, the prospect of seeing every asset in the country suddenly lose value as a result of exchange controls should give policymakers pause.

## Currency Unification via a Currency Board or Dollarization

As we enter the 21st century, globalization (the liberalization of financial and trade flows) is threatened. Volatile short-term capital flows are identified as the problem and exchange controls the remedy. That prescription, which is based on a wrongheaded diagnosis, will lead to monetary nationalism and the type of economic chaos the world encountered after World War I. The only way to avoid such a disaster is for developing countries to unify their currencies with stronger ones by establishing a currency board or by replacing a national currency with a strong foreign currency (official dollarization).

An orthodox currency board system is a monetary institution that issues notes and coins fully backed by a foreign reserve currency and convertible into the reserve currency at a fixed exchange rate on demand. In addition, an orthodox currency board cannot act as a lender of last resort, does not regulate reserve requirements for commercial banks, only earns seignorage from interest on reserves, and does not engage in forward exchange operations.

Hong Kong’s currency board, as well as those established in the 1990s, all deviate in important respects from orthodoxy. While these boards have performed well, something even the skeptics have admitted, they are not trouble free. For example, even though Argentina weathered the storms of 1995, the spread between interest rates on Argentine 30-day loans in pesos and U.S. dollars varied between 0.5 percentage points and 4.4 percentage points during 1998. If the peso-dollar fixed exchange rate was perfectly credible, those spreads should have been close to zero.

The peso-dollar interest rate spreads are not zero because the Argentine currency board deviates from orthodoxy. It engages in lender-of-last-resort activities, regulates reserve requirements for commercial banks, and up to one-third of the dollar-denominated

reserves it holds to back its monetary liabilities can be held in the form of Argentine government bonds. Also, its foreign exchange reserves can exceed its monetary liabilities, indicating sterilization.

To make Argentina's currency unification with the dollar perfect, President Carlos Menem has suggested that Argentina replace the peso with the dollar. Official dollarization would close the peso-dollar interest rate spreads, peso notes would no longer circulate, and Argentina would no longer earn seignorage from its currency board system. Argentina could easily implement official dollarization by exchanging its dollar reserves for outstanding peso notes and coins and by declaring that all peso assets and liabilities in Argentina be denominated in dollars.

At least 120 countries have officially used the currency of another country at some time. Today, the best-known country that is dollarized is Panama, which did so in 1904. However, there are 27 other countries and dependent territories that currently do not have a national currency and use a foreign one instead. Even though the record unambiguously supports official dollarization as a superior monetary regime, Deputy Treasury Secretary Summers does not seem to like the idea. Indeed he has already confidently asserted that monetary unification via dollarization would not provide a "quick fix" for monetary crises (Fidler 1999).

## The Record of Currency Boards and Dollarization

Some analysts fret about the inflexibility imposed by currency boards and dollarization. *The Economist* summarized these sentiments in an article, "The Great Escape," which appeared in the May 3, 1997, issue. That article asserted that currency boards cannot cope with external shocks; that they are vulnerable to surges in inflation triggered by capital inflows; and that with limited lender of last resort capacities, they cannot deal effectively with financial emergencies.

The evidence does not support those oft-repeated assertions. Data from 98 developing countries for the 1950–93 period show that countries with fixed exchange rates experienced growth rates of per capita GDP that were 54 percent greater than those of countries with pegged exchange rates. Furthermore, the variability of those growth rates (as measured by their standard deviations) was virtually identical, indicating that the lack of discretionary monetary policy with fixed exchange rates did not result in any greater incidence or vulnerability to external economic shocks. As for inflation, fixed rates have proved far superior to pegged rates, with average inflation rates being 4.9 times higher in countries with pegged rates and 4.2 times more variable. In

terms of budget deficits, measured as a percentage of GDP, countries with pegged rates had deficits that were, on average, 65 percent larger and 1.4 times more variable than those of countries with fixed rates. Finally, countries with fixed rates experienced fewer financial emergencies (Hanke 1999).

## Conclusion

Until recently, most economists have downplayed currency boards and dollarization as viable reform proposals for developing countries. Many experts simply declared that fixed rates are “inappropriate” or claimed that the facts are “erroneous.” There is nothing new here. Indeed, in his book, *Personal Knowledge*, Michael Polanyi (1958: 138) concluded, “The normal practice of scientists [is] to ignore evidence which appears incompatible with the accepted system of scientific knowledge.”

With the failure of pegged and floating rates in Asia, Russia, and Brazil, the tide has begun to shift. This shift is welcome and has left me feeling a bit like Winston Churchill on his return from the Boer War, when he remarked, “Nothing in life is so exhilarating as to be shot at without success.”

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