

# The International Monetary System and the Case for a World Currency

*Robert A. Mundell*

*1999 Nobel Prize Winner in Economics,  
Professor of Economics, Columbia University, New York, USA*

Leon Koźmiński Academy of Entrepreneurship and Management (WSPiZ) and TIGER

Distinguished Lectures Series n. 12

Warsaw, 23 October 2003

**Grzegorz W. Kołodko, Director of TIGER:** In the spring of 2000 Professor Robert Mundell initiated the *WSPiZ and TIGER Distinguished Lectures Series* related to the issues of globalization, liberalization, integration and transformation. Three and a half years ago he was speaking on the “International Financial Architecture, The Euro Zone and Its Enlargement in Eastern Europe”. At that time the euro was still at its very early stage of existence. Today it hovers around the strongest level ever against the American dollar. The debate about the conditions upon which the forthcoming new members of the European Union – including Poland and other seven post-socialist countries of East Central Europe – will be joining the eurozone is getting momentum. Professor Mundell since the beginning has been in favor of the European Union enlargement, including the implications of this process for expansion of the Eurozone. Now, just half a year before the integration of eight transitional economies (and two Mediterranean countries) will take place, the monetary convergence is closer than at any time before.

Leon Koźmiński Academy of Entrepreneurship and Management (WSPiZ) and Transformation, Integration and Globalization Economic Research (TIGER) *Distinguished Lectures Series* has continued all the time since the first lecture delivered by Professor Mundell in 2000<sup>1</sup> and today the 12<sup>th</sup> lecture is presented again by the 1999 Nobel Prize laureate in Economics and the Chairman of the Scientific Advisory Board of TIGER – Professor Robert Mundell.

Professor Mundell does not need to be introduced as he is our frequent guest here – both, at the Academy and in TIGER – however, one must point out that he is considered worldwide, and not without a reason, the father of the optimal currency zones theory. For this purpose his

---

<sup>1</sup> The lectures delivered in the *Series* are available on the TIGER website at [www.tiger.edu.pl](http://www.tiger.edu.pl). They can be also mailed upon request.

contribution to the introduction of Euro is unquestionable and widely acclaimed. Hence – I believe – today we will all be very interested in listening to his views on the topic “The International Monetary System and the Case for a World Currency”. Is one world currency a reliable option for the global economy, and might it be a better solution than the existing international multicurrency system? Such option seems to be more and more attractive since we experience many problems in managing currencies and exchange rate regimes all over the world, and hence the dispute between different schools of economics continues.

I have a great honor to know Professor Robert Mundell and to work with him already for dozen or so years and have had a privilege to contribute together with him to the volume on “Exchange Rate Policies in Developing and Post-Socialist Countries”<sup>2</sup>, as well as to the book on “Building the New Europe. Eastern Europe’s Transition to a Market Economy”<sup>3</sup>, of which he is the co-editor. More than a decade has passed since we had been working on these two early projects, but both these books, I believe, have made an important contribution to the theory of economics and, due to their policy-oriented character, have had certain influence on policymaking. However, the world has changed since then. At the time of the conference on the exchange rate policies, which was held in West Berlin in early 1990, the Berlin Wall was still there. And now – after the long lasting process of transition to the market economy – we are on the eve of joining the European Union and soon afterwards the eurozone. Professor Mundell through his research and advice has contributed to the success of such remarkable changes, too. Again, welcome Bob. The floor is yours.

**Robert A. Mundell:** It is a great pleasure for me to be back in Poland and to share with you my thoughts on the subject of a world currency.

## 1. Early Plans for a World Currency

Going back some thirty-five years ago, I made a presentation for the Subcommittee on International Monetary Reform of the US Joint Economic Committee of the US Congress entitled “A Plan for a World Currency.”<sup>4</sup> That was in September 1968, and the issue then was international monetary reform: how could we save the fixed exchange rate international

---

<sup>2</sup> “Exchange Rate Policies in Developing and Post-Socialist Countries”, edited by Emil-Maria Claassen, ICS Press, San Francisco, 1991.

<sup>3</sup> “Building the New Europe. Volume 2: Eastern Europe’s Transition to a Market Economy”, edited by Mario Baldassarri and Robert Mundell, St. Martin’s Press in association with *Rivista di Politica Economica*, Rome, 1991, 1993.

<sup>4</sup> “A Plan for a World Currency” *Joint Economic Committee Hearings*. Washington, D.C. September 1968.

monetary system that had been endorsed at the 1944 Bretton-Woods meeting. In my view, the post-war system had one major flaw: the absence of a world currency. I believed that the best way to preserve the system was to create the world currency. Even if such a construction was not politically negotiable—and in that period of tension it was not—a focus on the major problem of the system would point to viable alternatives.

The proposal for a world currency today sounds radical, but you should know that it was not completely removed from advanced thinking sixty years ago. In 1941, the President of the United States, Franklyn D. Roosevelt, directed his Secretary-of-the-Treasury, Henry Morgenthau Jr., to make plans for the post-war economic order. In this directive he was explicit about the need for making provision for the world currency. Harry Dexter White, who was then Director of Research at the Treasury, was put in charge of preparing the American plan. This plan did include the world currency, which he called “*unitas*.” Across the Atlantic, almost concurrently, Keynes was preparing the British plan for what was called a “Clearing Union.” This plan also included a provision for a world currency, which Keynes dubbed “*bancor*,” utilizing the French word for gold in the suffix. In other words, both of the major blueprints out of which the Articles of Agreement of the International Monetary Fund emerged as a compromise, included plans for the world currency.

What went wrong? What factor blocked the creation of the world currency at the time of the Bretton Woods meeting? There was virtually no public discussion of the subject. It was just taken off the agenda. “Whenever the British brought up the issue, the Americans changed the subject,” Lord Robbins tells us in his diary. We can probably conjecture what happened. The US administration had begun to despair that a provision that included the world currency would pass the US Congress or—in that presidential election year (1944)—would be good politics. In President Roosevelt’s message to Congress on “The Bretton Woods Money and Banking Proposals,” he made explicit the fact that the Bretton Woods plan did not include a world currency:

“It is time for the United States to take the lead in establishing the principles of economic cooperation as the foundation for expanded world trade. We propose to do this, not by setting up a super-government, but by international negotiation and agreement, directed to the improvement of the monetary institutions of the world and of the laws that govern trade....”

“A good start has been made. The United Nations monetary conference at Bretton Woods has taken a long step forward on a matter of great practical importance to us all. The conference submitted a plan to create an International

Monetary Fund which will put an end to monetary chaos. The Fund is a financial institution to preserve stability and order in the exchange rates between different moneys. *It does not create single money for the world; neither we nor anyone else is ready to do that* (my italics). There will still be different money in each country, but with the Fund in operation the value of each currency in international trade will remain comparatively stable. Changes in the value of foreign currencies will be made only after careful consideration by the Fund of the factors involved....”

It is worth reflecting that the US position at Bretton Woods fits the conjecture I have made before: that there is a tendency for the dominant country to reject the world currency. The basic fear is that the global currency represents a threat to the position of its own currency. The counterpart of the conjecture is that actual or potential rivals try to pursue international monetary reform to clip the wings of the dominant power and to redistribute power. There is some casual support for this conjecture in history. In the late nineteenth century it was France, the former dominant power, that organized international monetary congresses and advocated the world currency, and the French position was supported by the United States, the dominant power to be. The presiding power, Great Britain, however, took an observer status and in the final analysis would not participate, in effect scuttling the project.

A half century later, when the dollar had become the dominant currency, it was the United States that stood apart and at the London Economic Conference in 1933 rejected the British and French proposals for the restoration of the international gold standard. Clearly at this conference, President Roosevelt, after having just floated the dollar a few months earlier, did not want a part of any agreement that would tie the hands of the U.S. and possibly impede economic recovery. The following year, however, the United States did return to gold on its own terms and in a way that made dollar the most coveted currency in the world. Ten years later in 1944 Roosevelt did not want the creation of a world monetary authority that would hamper the ability of the United States to pursue its dominant objective of full employment. Just as Britain did not want the world currency in the nineteenth century because it would infringe on the universality of the pound, so the United States did not accept the world currency at Bretton Woods because it would reduce freedom of action with respect to the dollar.

## 2. The Special Role of Dollar in the Post-War System

A world currency was considered in the planning for Bretton Woods but was rejected even before the event. We don't know how it would have worked out in reality had one been adopted. No detailed blueprint had been made for its management and maybe the monetary and political technology was not available. Instead, the Bretton Woods Agreement was based on the two mainstays of the existing system, gold and the dollar. The system that was ratified was neither a gold standard nor a dollar standard; it was a hybrid system with features of both standards. It was partly a dollar standard because all the major countries fixed their currencies to the dollar (within narrow margins), countries held part of their reserves in dollars and used the dollar for purposes of intervention in the exchange market. It was partly a gold standard because par values for currencies were denominated in gold (or in the 1944 gold dollar of 1/35 ounces), countries held reserves in gold, and the U.S. had a commitment to convert dollars into gold for foreign monetary authorities.

The asymmetry in the system arose because of the extraordinary position of the U.S. and the dollar in the world economy. The U.S. had become the largest economy in the world soon after the Civil War, but in the twentieth century it had become larger than several of the next largest countries put together. After the breakdown of the international gold standard in World War I, and the collapse of the restored gold standard in the 1930s, the dollar had become the only major currency convertible into gold and the anchor for many of the leading currencies. The IMF charter did not in fact create a new system but rather ratified and regulated the system that had already come into existence after the US devaluation in 1934. At the Tripartite Agreement in 1936, the United States, Britain and France had agreed to advance notification of exchange rate policies and this agreement can be looked upon as a precursor to the Bretton Woods Agreement. But the asymmetrical form of the system was already in place: the dollar was "as good as gold", and other major countries fixed their currencies to the dollar.<sup>5</sup> The United States did not fix to other currencies; it fixed to gold and was the only country, except for Switzerland, to do so.

---

<sup>5</sup> What came to be called a „dollar shortage” began with the devaluation of the dollar in 1934 which apparently overvalued gold made it safe for other countries to fix their currencies to the dollar rather than gold.

The asymmetrical role of the dollar, however, went largely unrecognized-even, I think, by Keynes and White.<sup>6</sup> What else would account for the fact that the exchange rate provisions would have required the United States to intervene in virtually every currency market, a practice completely foreign to the US policy? World War II had made the position of the dollar even stronger. The early drafts of the IMF rules required countries to keep the currencies of other members fixed within a small margin of their gold (or 1944 gold dollar) parities. But in the free New York foreign exchange market, currencies fluctuated at prices far below their parities. Had the exchange rate rule been applied to the United States, it would have meant that the United States would have been required to support every one of these foreign currencies. When this fact was noticed, the gold clause, Article IV-4(b) was inserted, asserting that a country that notified the Fund that it was buying and selling gold freely at a fixed price was deemed to be fulfilling the exchange rate requirement. The United States was the only country in a position to take advantage of that rule, which exempted the United States from intervention. The full responsibility for the exchange rate management was therefore put on other countries. The US balance of payments-defined as gold sales and increases in dollar balances of foreign monetary authorities-was therefore a residual, its total amount determined by the appetite of the rest of the world for reserves, and its dollar-gold composition by its preferences for gold and dollars.

At the time of the IMF meetings, the outer countries held reserves in dollars and gold while the United States had reserves mainly in gold. A few years later, in 1948, the US gold holdings reached the peak of about 700 million ounces, 70 per cent of the world's monetary gold stock. The other countries, which were mostly anchored to the dollar, could maintain equilibrium in their balances of payments by suitable monetary policies. But there was no mechanism for keeping the world price level in line with the price of gold, as under the old gold standard.

Theoretically, the U.S. could have let its monetary policy be governed by its gold flows as under the old gold standard. But this automaticity was a casualty of the Great Depression. Allowing the monetary policy to be governed by the balance of payments, so the argument went, was a case of the tail wagging the dog. In the post-war world, the United States became committed to the primacy of the internal balance and this was written into the Full Employment Act of 1946. The monetary policy was therefore committed to the internal

---

<sup>6</sup> I learned some of the details about this issue from the late Edward M. Bernstein, who was at the US Treasury since the 1930s and participated in the Bretton Woods discussion. He became the first Director of Research at the IMF.

balance and this meant that its gold flows would have to be sterilized. When \$1 billion of gold was sold, the Federal Reserve Bank of New York would turn around and buy \$1 billion dollars worth of Government Securities. What happened to the money supply, then, was entirely at the discretion of the monetary authorities. In modern parlance you could say that they did inflation targeting despite the fact that the U.S. was part of the international monetary system.

There was now a missing equation in the system. The price of gold was fixed but there was no mechanism for keeping the price level in line with the price of gold. The international monetary system endorsed at Bretton Woods was therefore a disequilibrium system. It soon became clear that it was on a collision course between the fixed price of gold and the world price level. If the price level kept rising while the price of gold stayed constant, a scarcity of gold would develop that would bring on a crisis. This did happen because the US commitment to price stability was not very secure, taking into account the inflations of World War II and its aftermath, the Korean War, the Viet-Nam War and secular inflation in between. The weak point in the system was that the U.S. pursued the inflationary monetary policy in the post-war period and so the price of gold, at \$35 an ounce set in 1934, became obsolete.

The IMF Articles of Agreement did contain a provision for raising the price of gold in terms of all currencies in the event that gold became scarce. In the language of the Fund, there could be an agreement on a “universal reduction in the par values of currencies,” i.e., the reduction in the amount of gold per unit of currency. Halving the “gold content” of all currencies would mean doubling the price of gold in terms of all currencies. But politically, a substantial (doubling or more) rise in the price of gold ran into apparently insurmountable political hurdles. Five main arguments against it were, first, that an increase in the gold price would enrich the two largest gold producers: South Africa, with its discriminatory system of apartheid, and the Soviet Union, the enemy in the Cold War; second, that such an action by the United States would seem to betray those countries which had, at US’ urging, held on to the dollar balances rather than convert them into gold; third, that an increase in the price of gold might create expectations of a further increase later on if the problem of gold scarcity reappeared; fourth, that an increase in the price of gold might be inflationary; and fifth, that an increase in the price of gold that was large enough to end speculation would force on the U.S. huge gold purchases of the kind experienced after the devaluation of 1934. None of these

arguments were conclusive but they provided ammunition for the opposition to an increase in the price and made it politically difficult to initiate the process.<sup>7</sup>

What came to be called the “Triffin Dilemma” played a role in the diagnosis of the problems of the system. Named after Robert Triffin, an astute Belgian economist teaching at Yale University who wrote a key book named *Gold and the Dollar Crisis* in 1959, the Triffin Dilemma was that if the United States corrected its balance of payments deficit, the rest of the world would run out of liquidity, with deflationary consequences for the world economy; on the other hand, if it failed to correct its deficit, the U.S. would not be able to keep its commitment to convert dollar balances into gold and there would be a crisis of confidence in the system.

How to solve the problem? With an increase in the gold price ruled out, the alternative was a kind of sleight of hand: paper gold. The existing gold stock could be “stretched” by issuing claims to purchasing power valued in terms of gold. As long as countries were willing to accept this “paper gold” at its face value, it would be used as reserves and exchanged at par with gold without changing its price. It would introduce a fiat component in the world money. Thus was born the Special Drawing Rights (SDRs), as the paper gold was called, and one unit was defined as the equivalent of one “1944” US dollar, i.e., 1/35<sup>th</sup> of an ounce of gold. Agreement on the SDRs was made at the 1967 Rio de Janeiro annual meeting of the IMF, and it was ratified, as the First Amendment to the Articles of Agreement of the IMF, in the following year. Each country would receive an “allocation,” based on its quota in the Fund, and would be obliged to accept SDRs up to three times its allocation. After the Rio agreement there were great expectations not only that the SDRs would provide the needed supplement to the gold reserves but become the embryo of a genuine global currency.

### **3. The Breakdown of Bretton Woods**

How would the creation of the SDRs solve the problem of the system? Because of its gold guarantee, it should have been a substitute for gold. Because it bore interest, it would also be an attractive asset to accumulate as an alternative to the dollar. Instead of accumulating dollar balances, other countries would accumulate SDRs, thus reaching their reserve targets without having a counterpart in a deficit in the US balance of payments. Instead of growth of dollar

---

<sup>7</sup> Arthur Burns, who was Chairman of the Council of Advisors under Eisenhower, and adviser to Nixon in the 1968 campaign and after his election, Nixon’s choice as Chairman of the Federal Reserve Board, did go to Europe and canvass opinion of the Europeans on the subject. Apparently they were willing to go along with the move but when he returned, Burns was unable to convince Nixon that the move was desirable.



balances, there would be growth of SDR balances. In the long run, a better balance would be achieved with reserves composed of gold, (gold-guaranteed) SDRs, and dollars.

Nearly \$30 billion were allocated over a period of three years, starting in 1970. This was a substantial amount, nearly doubling the world stock of monetary gold held by monetary authorities and there was every expectation that if carried through as planned, it would alleviate the problem. Unfortunately, two events undermined it. One was the crisis in March 1968 when a surge of speculation pushed the price of gold in the London market above the official price. The Bank of England was unwilling to intervene in this market (which is a dollar market) unless it could be sure that it could recover its gold from the US Treasury. The result was that the US Treasury issued the “March Communiqué,” which established what was called a “two-tier system”<sup>8</sup> in which the market price of gold would be allowed to float above the official price of \$35, and countries would refrain from purchasing gold in the private market. This meant that gold would trade among central banks at \$35 an ounce, but be free to float way above that in the free market.

Decisions made under the pressure of crisis are not usually well thought out. The problem with the two-tier system is that it undervalued the gold held by central banks. No official wanted to be blamed for selling gold at \$35 an ounce when the free market said it was worth \$100 an ounce. The result was that gold reserves became effectively immobilized!<sup>9</sup> The task facing the new issues of SDRs was suddenly and enormously increased.<sup>10</sup>

But this “two-tier system” had a consequence that was not foreseen in the SDR agreement. In effect, it immobilized the official gold stocks: no central banker wanted to be blamed for selling gold at a price to other central banks that was below what the market said it was worth. At one fell swoop, usable international reserves were suddenly cut by about \$35 billion. This reduction in usable reserves made the planned SDR allocation just a drop in the bucket. The reform came too little and too late.

The second, decisive blow was when the international monetary system the SDR was desire to preserve, was discarded. In early August 1971, President Nixon and his new Treasury Secretary, John Connolly, made a decision to take the dollar off gold. The

---

<sup>8</sup> It was Guido Carli, the highly respected Governor of the Banca d’Italia, who gave the two-tier system its name. It is an exaggeration to call it a „system” because it amounted to the opposite, the abandonment of the system.

<sup>9</sup> The problem was not a drop in wealth, which rather increased (because of expectations of a higher realizable price), but rather that the wealth became illiquid.

<sup>10</sup> The two-tier system arose when the Gold Pool, formed among major gold holders to divide up available gold supplies from the private market, was not willing to supply gold to the London market to keep its price from rising above the official price of \$35. Already by 1967, demand in the private market for gold, centered in London, overtook private supply. In the fall of 1967 France withdrew from the Gold Pool, and in the following winter the other nations followed, and the market price was allowed to go its own way.

announcement of the new policy was planned after the meeting of the main presidential advisers at the presidential retreat in Camp David, Maryland, following the British request to convert additional dollars into gold. The package of measures, soon referred to in Asia as the “Nixon Shock,” included a 10% ‘surtax’ on imports, price controls and, most important, the closing of the “gold window.” This meant that the fixed exchange rate international monetary system no longer had the legal sanction of the Articles of Agreement of the International Monetary Fund.<sup>11</sup>

The decision to end the convertibility of the dollar was by no means forced on the United States. It is sometimes loosely referred to as a “run on gold,” but it was far from that. The decoupling of the dollar from gold was a conscious policy choice based on the idea that the costs of the international monetary system to the United States exceeded its benefits. On one hand, it relinquished monetary leadership; on the other, it ended a commitment that, arguably, benefited its partners more than the U.S. Connolly saw the asymmetrical position of the dollar as an impediment to US policy, depriving it of the ability to devalue its currency and improve its trade balance. This view was by no means universally shared in the United States or abroad, and one influential person, Arthur Burns, the Chairman of the Federal Reserve System at the time of the Camp David meetings in August 1971, and the most experienced economist among Nixon’s advisers, strongly objected to the decision.

The European Economic Community—the predecessor of the European Union—had announced its decision at the Hague Summit in December 1969 to proceed toward economic and monetary union in Europe. As this plan got under way, the US Treasury considered its impact on the US interests, and concluded that the U.S. should treat the plan for the monetary union in Europe with “benign neglect.”<sup>12</sup> There is no doubt that the act of taking the dollar off gold and moving to flexible exchange rates was a serious blow to the prospective members of the European currency zone because up to that time European exchange rates, interest rates and inflation rates had converged around the dollar. Whether this factor played a role in the

---

<sup>11</sup> The badly-written Article IV of the Fund charter required that countries keep the currencies of all other members within 1% of their parities. Early in the post-war period, it became apparent that this clause was unworkable. An IMF by-law solved the problem by specifying that a country that maintained its currency fixed in terms of a convertible currency would be deemed to fulfilling its obligations under Article IV. The convertible currency meant in most cases the US dollar. We have already noted the special provision for a country that was fixing the price of gold. When, however, the U.S. took the dollar off gold, it ceased to be in conformity with Article IV. Moreover, neither were the other countries that fixed to the dollar because the dollar was no longer convertible.

<sup>12</sup> This conclusion was arrived at a US Treasury Consultants meeting in, I think, 1970; I was informed of the conclusion by Gottfried Haberler.

decisions to abandon the international monetary system is not known, but the effect was clear: flexible exchange rates set back the creation of a European currency by at least two decades.<sup>13</sup>

#### **4. The Smithsonian Dollar Standard**

When President Nixon announced, on Sunday, August 15, 1971, that, along with other measures, the United States was taking the dollar off gold, it sent shock waves through the system. As it happened, the next day was a holiday in Continental Europe and exchange markets in many countries were closed for the rest of the week.<sup>14</sup> Germany proposed a joint float of European currencies, but this was turned down by France, which preferred controls on capital account while keeping its exchange rate with the dollar constant. By the end of August, most currencies were floating against the dollar.

Floating exchange rates, however, were not at this time thought to be in the general interest. Pierre Paul Schweitzer, the Managing-Director of the Fund, stressed the urgency of agreement on a new pattern of exchange rates.<sup>15</sup> Connolly emphasized the need for a turnaround of \$13 billion in the US trade balance. France argued that in search for the new exchange rates, the U.S. should devalue the dollar in terms of gold. Throughout the following months the new exchange rates were negotiated, culminating in the agreement, made at the Smithsonian Institution in Washington, D.C., on December 15-16, 1971. The U.S. lowered the dollar's parity against gold, raising the price<sup>16</sup> to \$38 per ounce, and other major currencies were revalued. The new agreement, however, did not restore the "Bretton Woods System," however, because the dollar was no longer convertible, even for foreign monetary authorities, into gold. The system set up at the Smithsonian Institution was a pure dollar standard.

Unlike the Bretton Woods arrangements, the U.S. had no reciprocal commitment to discipline. Under the pure dollar standard, the U.S. is theoretically free to conduct monetary policy in its own interests. But, in fact, the dollar standard would be acceptable only if the US monetary policy suited the interests of other countries. The weakness of the "dollar area" after the Smithsonian Agreement was that there was no explicit commitment to or agreement on

---

<sup>13</sup> My own plan for a European currency was first presented in December 1969 and circulated to the European Commission in Brussels. There is no doubt that the negotiation and creation of a European currency would have been much easier in 1969 or 1970 when European inflation rates and interest rates had already converged under the dollar anchor, and when fiscal accounts were kept in balance.

<sup>14</sup> The Feast of the Assumption of Mary.

<sup>15</sup> Solomon, 193.

<sup>16</sup> As Milton Friedman put it, the U.S. raised the price at which they were neither buying nor selling gold!

the nature of price stability. Should the United States stabilize its own price level or should it take into account the interests of the participating countries? If so, how?

The dollar standard set up at the Smithsonian Institution broke up in less than a year and a half. The US monetary policy was expansionary in the 1972 presidential election year and the balance of payments deficit built up large dollar balances in Europe and Japan. In February 1973 the U.S. raised the official price of gold to \$42.22 an ounce (where it remains to this day). This devaluation only served to whet the appetites of speculators and the crisis intensified. The market price of gold soared and exchange markets became turbulent. Once again, the European countries made a try for a joint European float and this time it had more success, although Britain did not take part in what was called the “Snake.” By the spring of 1973 the Smithsonian dollar standard had transmogrified into generalized floating--soon to be characterized as “managed flexible exchange rates.”

## **5. Generalized Flexible Exchange Rates**

Few officials were happy with the flexible exchange rates. It was looked upon as something between a temporary lapse from grace and entry into chaos. Europe suffered because it no longer had an anchor to achieve the convergence needed to proceed toward the monetary union. There was no longer an international monetary system. Each country was on its own, as the Committee of Twenty put it, and could deal with inflation in its own way.

The Committee of Twenty worked long hours for two years to restore the fixed exchange rate international monetary system but was unable to reach an agreement.<sup>17</sup> The Second Amendment of the Articles of Agreement endorsing a “managed flexible exchange rate system” was an act of desperation rather than a carefully planned blueprint for the new international monetary system.

Many policy-makers make the mistake of thinking that the regime of flexible exchange rates gave a country an extra degree of freedom for economic policy. In the instruments-targets framework developed by Tinbergen, countries had an additional instrument (the exchange rate) of policy. They no longer needed to use monetary policy to keep the balance of

---

<sup>17</sup> The mechanism for creating a new system left much to be desired. Unlike the comprehensive agreement at Bretton Woods, which was conceived as a compromise between the plans of two outstanding individuals (John Maynard Keynes and Harry Dexter White), the Committee of Twenty was a cumbersome group that included the twenty IMF Executive Directors with their deputies and advisers, totaling over 150 individuals, all of whom, Robert Solomon tells us, were men. It is not surprising that it was a waste of time. For a detailed description of the laborious procedures see R. Solomon's excellent book, *The International Monetary System 1945-76..* New York: Harper & Row. Ch. 14.

payments in equilibrium but could use it instead to achieve their employment or price level objectives. But this view was a total misconception, a bad mistake in the economic theory. The fixed exchange rates are a monetary rule that delivered a particular kind of stabilization: domestic inflation would be equal to coincident with the inflation rate of the currency area as a whole. Removal of that monetary rule would only provide an extra degree of freedom if no concern were given to stabilization policy. The replacement of the fixed exchange rate monetary rule with the “inflation-targeting” monetary rule does not provide an extra degree of freedom.

A second misconception was that because flexible exchange rates would guarantee equilibrium in the balance of payments, countries would no longer need gold or foreign exchange reserves. Nothing could be further from the truth. Sir Roy Harrod had argued persuasively in the 1960s that countries would feel the need for more reserves under the flexible exchange rates than under the fixed exchange rates. That has proved to be the case. Reserves as a percentage of imports have soared in the 35 years since floating began.

A third misconception was that flexible exchange rates would bring about a viable equilibrium in the balance of payments. For example, most Americans thought it would bring about an end to the balance of payments deficits experienced under the fixed exchange rates in the 1960s. This misconception crashed in the 1980s when the U.S. began to run huge current account deficits and organized the Plaza Accord to bring about an appreciation of (mainly) the yen and the mark. Later, when the dollar fell precipitously, the deficits were transformed from deficits on current account to deficits on official settlements. The phenomenon of “Yen-Bashing” began when the market was not producing the exchange rates that the U.S. policy-makers wanted.

A fourth misconception was that a flexible exchange rate ‘system’ is a “free market solution.” This is simply an invalid inference from economic theory. It is true that free trade in money would be optimal in the world in which money was a commodity produced under competitive conditions. But it is a mistake to confuse that situation with the conditions in the modern world, where money is a token monopolized by the state. Price fixing is no more “illiberal” than quantity fixing. Modern central banks with flexible exchange rates are quantity fixers. The identification of state monetary monopolies with “free markets” or “libertarian” is simply foolish.

Unfortunately, ever since the middle of the 1970s, the IMF has pursued the policy of pushing countries onto the flexible exchange rates without insisting on the creation of an alternative rule to achieve monetary stability. All over Mexico and Central America, countries

abandoned fixed exchange rate rules for flexible exchange rates, and thereby gave up their monetary stability. Mexico, with a history of over two decades with a fixed exchange rate, devalued and then shifted to policies of monetary expansion, making necessary a currency conversion in the early 1990s. The IMF mistakenly champions the non-system of flexible exchange rates and derides the fixed exchange rate policies as vigorously and dogmatically as the IMF in the 1950s and 1960s championed fixed exchange rates! It would be a good lesson for all members of the IMF to take a look at the IMF Annual Reports of 1950 and of 1962, which contain scathing attacks on flexible exchange rates.<sup>18</sup>

## **6. The Second Amendment to the IMF Articles**

There are about 185 members of the IMF. What would the world be like if it were characterized by nearly two hundred currencies representing countries of the same size fluctuating against each other? It would be complete chaos! From a well-known formula, the number of exchange rates is equal to  $1/2 n (n-1) = 19,900$ . Imagine business and financiers having to deal with nearly 20,000 exchange rates even before they look at price lists!

Of course countries are not in the real world of equal size. What saved fluctuating exchange rates from chaos was the dollar. The strength of currency areas at any given rate of inflation is in proportion to the size of the area, measured by the transactions domain. The dollar became the default international currency and its importance was actually enhanced rather than diminished by the shift to generalized floating. The availability of a major currency like the dollar immediately established it as the nearly universal unit of account and reduced the number of fluctuating exchange rates (in our hypothetical world of 200 countries) to only 199.

From an economic-theoretic point of view, a world system based on the dollar would be a highly efficient monetary system. But the rest of the world would not accept the global dollar standard because of the ‘exorbitant privilege’<sup>19</sup> it gave the United States of having its own currency serve as the world currency.

The privileges are power, seigniorage, prestige, and discretion, well-known from the bitter discussions in the 1960s about the use of the dollar as an international currency. These

---

<sup>18</sup>It is partly a matter of training. My impression is that economists back in the 1950s and 1960s understood the theory of international monetary adjustment between different regions with a common currency better than their modern counterparts and could easily make the transition to fixed exchange systems with currency boards or gold-standard type of international adjustment.

<sup>19</sup>De Gaulle’s phrase.

advantages create the monetary counterpart to Hume's "Jealousy of the Balance of Trade." It is the jealousy that makes it difficult for other countries to accept the use of a national currency as the world currency. It is the jealousy that made it difficult for France, Britain and Germany to choose one of their currencies as the pivot for a joint float against the dollar in the early 1970s. It is a jealousy that is bound to characterize relations between the dollar and euro areas in the coming decades, and presents an obstacle to the negotiation of a world currency.

## **7. Three Decades of Floating**

After the breakdown of the fixed-rate system, symptoms of economic mis-management mounted. Two devaluations of the dollar in 1971 and 1973, oil embargo in 1973 and oil price shocks in 1974, stagflation, unprecedented (in peacetime) two-digit inflation in the U.S., soaring taxes resulting from steeply-progressive income taxes in an inflationary environment, a plummeting dollar and a soaring gold price characterized the unstable 1970s. This was a decade when a new word, stagflation, was invented to describe the combination of high unemployment and high inflation.

The 1980s saw a reversal of the policy mix and the beginnings of the return to the economic normalcy. President Ronald Reagan had been elected on a platform of supply-side economics, which promoted the ideas of stopping the inflation and stimulating the economy by slashing tax rates, deregulation and tight money. Capital inflows and dollar appreciation was combined with the rapid economic growth. By 1985 the dollar had doubled against the DM and the U.S. organized a meeting of the "SDR powers"<sup>20</sup> in September 1985 to bring about a depreciation of the dollar. The main object of the Plaza Accord was to bring about an appreciation of the yen against the dollar. By 1988, the dollar had fallen to 120 yen as a result both of tighter monetary policy in Japan and the severe drop in oil prices.

The Delors Report on the European Monetary Union (EMU) came about just on the eve of the end of the Cold War and the German unification in 1990. The German unification accelerated the urgency of monetary integration. Britain entered the ERM in October 1990, the month of the German unification. The Maastricht Treaty was hastily concluded in December 1991 forming the European Union and outlining the blueprint for monetary (and possibly political) union. Huge German transfers to the Eastern provinces financed by increases in German public debt created upward pressure on prices, higher interest rates and a

---

<sup>20</sup> The G-5 or SDR powers included the United States, Germany, Japan, France and Britain, producers of the five currencies that made up the IMF Special Drawing Rights Basket.

capital inflow (more exactly, reduction in capital outflow), and sharp appreciation of the DM against the dollar. The dollar fell to an all-time low of DM 1.34, which in turn created the ERM crisis of September 1992.<sup>21</sup>

In the United States, the decade of the 1990s saw rapid economic growth and the fulfillment of the supply-side promises of the 1980s with a budget surplus at the end of the decade and the IT revolution in the middle. The euro came into being at the beginning of 1999. The global slowdown then cast its spell over the early part of the next decade (and millennium). In late 2000 the US economy slowed and in the following spring the unprecedented decade-long boom of the 1990s came to an end. After a short recession, the US economy then recovered on schedule and the rest of the world began to follow, but with a substantial lag. China made a large contribution to the global economic recovery with its soaring economy and imports that were surging at the time when G-7 imports were falling. China's economy began to be an important part of an increasingly integrated Asian economy. The combination first of Japan, then the Asian Tigers and now China propels Asia into a position in the world output that it has not had for five centuries.

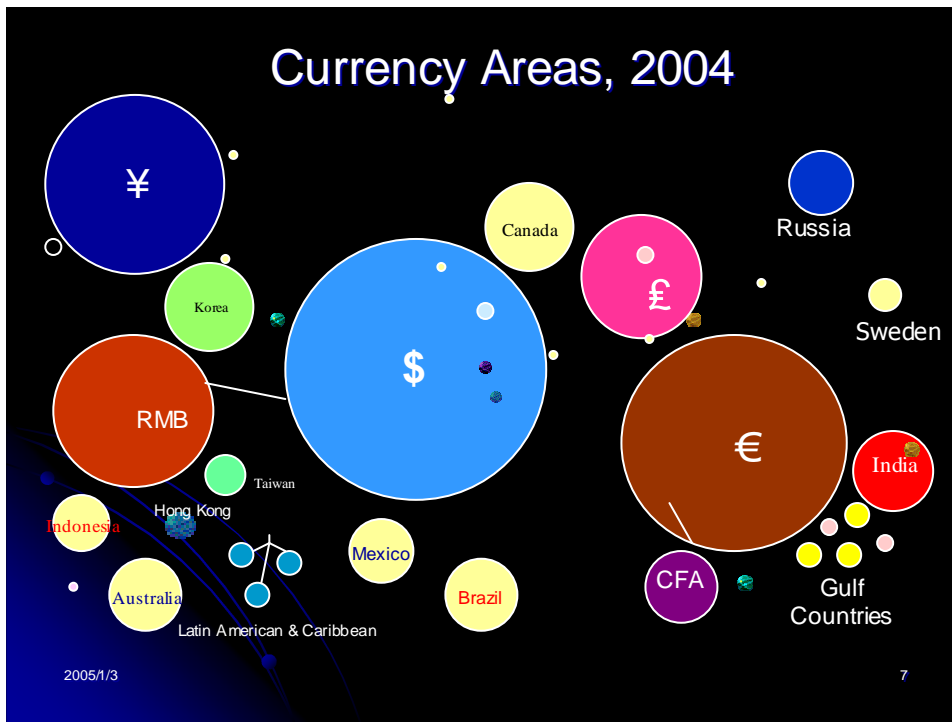
## **8. Currency Areas and Dysfunctional Exchange Rate Stability**

Let me now turn to the issue of reform of the international monetary system and the idea of a world currency. It will help to fix ideas if we look at the international monetary system as a system of currencies areas. In Figure 1 the area of the circles reflects monetary power, which is more or less proportionate to GDP. The GDP of the United States is close to \$12 trillion, of the Euro area – nearly \$10 trillion, and Japan's is about \$5 trillion. Down the line we have the U.K. with nearly \$2 trillion and China (which, however, is now part of the dollar area) at \$1.5 trillion. The top three currency areas comprise 60 per cent of the world GDP.

---

<sup>21</sup> Britain left the ERM in the middle of September. Whatever the lessons Britain took from the nearly two years in the ERM zone, the British economy entered with an inflation rate nearly 10 per cent, and left with an inflation rate of 4%. Looked at in this way, the ERM experience was a useful way of managing its inflation problem.





The Dollar-Euro-Yen or “DEY” group can be thought of as three islands of price stability. There is no inflation in any of the areas. What then is the reason for such large gyrations in nominal and real exchange rates? Look at the euro. The euro started at \$1.18, fell to \$0.82 and then soared to \$1.35. These are swings amounting to between 30% and 65% of the nominal and real exchange rates in the space of six years. Why such huge swings between the two areas where price levels are stable?

It is not any better when we look at the yen-dollar exchange rate. In September 1985, at the time of the Plaza Accord, the dollar was 239 yen. Ten years later, in April 1995, the yen had tripled in value as the dollar dropped to 78 yen.<sup>22</sup> The dollar then soared by 80 per cent to 148 yen, cutting off FDI to Southeast Asia and detonating the Asian Crisis. Again, what is the basis for the wild swings between the areas that have a comparable degree of stability?

These currency areas are not static; they are evolving as their members change. The biggest changes right now are in the euro area. My guess is that in less than a decade all ten accession countries will want to join the euro area as soon as conditions are right. The dollar area will go on as before, perhaps picking up members in Latin America and Asia. The Dollar Area now includes Hong Kong, China, Malaysia, several Gulf States, and a few other countries scattered over the world. In Asia there could be some currency reorganization with steps toward an Asian monetary area. There are also significant steps toward monetary integration efforts in the Caribbean, Latin America and Africa.

<sup>22</sup> This three-fold appreciation of the yen was a major factor in ruining the balance sheets of companies and creating the non-performing loans of the banking system, which is today still a problem.

## 9. Monetary Nationalism and Sovereignty

Currency is a medium of exchange and payment, the way language is a medium of expression and conveyance of information. Just as a common language might be the most efficient means of communication of facts and ideas, so a common unit of account might be the most efficient means of communicating prices. A common unit of account would optimize transparency of prices and economy of transactions. .

Historically, however, politics and nationalism have impeded the path toward a common currency just as there is general reluctance or resentment at the idea of the common currency. The common world currency runs up against the block of nationalism. As John Stuart Mill wrote in 1848:

“...So much of barbarism, however, still remains in the transactions of most civilized nations, that almost all independent countries choose to assert their nationality by having, to their own inconvenience and that of their neighbors, a peculiar currency of their own.”<sup>23</sup>

The currency nationalism that existed in Mill’s day was much more moderate than it is today. In his time and even more so a half-century later the world was divided into large empires within which a common currency prevailed. But the world wars of the twentieth century smashed these empires and brought new-old countries into being, each of which “chose to assert their nationality...”, as Mill said, by creating a “peculiar currency of their own.” For many of these countries, a national currency was a badge of independence and a symbol of liberty. When the IMF was negotiated, there were 44 countries; now there are 184 members, of which at least 170 have separate currencies.

What if the world had started with a single currency? This would be a strong step toward efficiency of information and payments, and it is hard to see why if such a currency existed and it were stable, countries would want to break it up. Yet whether a single world currency was institutionally stable would depend on the political structure of the world. If our single world currency applied to a world that was divided into independent nation-states, governments in each country would have an incentive to capture seigniorage by creating its own currency, displacing the “single” currency. The story of the Tower of Babel would repeat itself in the monetary world! Only if national governments solemnly agreed not to create their

---

<sup>23</sup> John Stuart Mill, *Principles of Political Economy*, Vol. 2. New York. 1894: 176.

own currencies would a single global currency be an equilibrium solution. The countries would not be likely to accept this solution unless there was an arrangement for a rebate of seigniorage from the monetary authority.<sup>24</sup>

The struggle between governments and their subsidiaries over money creation has a common theme in the monetary history. Revolutions and wars were heavily financed by money and the creation of a new currency sometimes is the announcement or affirmation of secession.<sup>25</sup> Currencies have long been associated with political sovereignty. Monarchies put the faces of kings on coins for information and claim to loyalty. Habit and custom made currency an element of the national heritage. The right to use overvalued money as a fiscal device became an acknowledged part of the social contract of many nations. Major powers are reluctant to give up their national currencies without adequate compensation or power in the larger unit.

## 10. Reciprocal Commitments of a Monetary Leader in a Currency Area

Alfred Marshall once said that “the most important thing one can say about currency is that it is unimportant.” Of course Marshall was writing in 1912, after the history of nearly a century of comparative monetary stability based on the metallic money. “Currency” only appears to be important when it is in disequilibrium. It is no accident that the most innovative treatises on monetary economics were written in periods of monetary turmoil.

Marshall’s protégé, John Maynard Keynes, devoted his life to currency questions. He wrote a book on India’s currency before World War I, was assigned to study currency issues during the War, wrote his famous *Tract on Monetary Reform* early in the 1920s, wrote a two-volume *Treatise on Money* at the end of the decade; his revolutionary *General Theory* in 1936, and was one of the two main architects of the international currency system after World War II. Writing in 1923 (the year his *Tract* was published) he recognized how fundamentally different the international system after World War I was from the century in which Alfred Marshall flourished. But in precisely what sense was it different?

Of course, 1912 and 1923 were separated by World War I with all its consequences for the power relationships and its effect on the world psyche. In the monetary sphere there was the breakdown of the gold standard. Keynes famously wrote that “*the gold standard is already a*

---

<sup>24</sup> In the EMU, seigniorage is redistributed to member countries in proportion to their equity in the ECB.

<sup>25</sup> See my paper, ‘Money and the Sovereignty of the State,’ *Monetary Theory and Policy Experience*. London: Palgrave (in association with the International Economic Association).

*barbarous relic*". But why? After other wars, and notably after the nearly global Napoleonic Wars, the world went back to one of the specie standards and the structure of the international monetary system more or less went on as before. What had happened to make Keynes say that the gold standard "was already a barbarous relic"?

It was not World War I that made the gold standard a barbarous relic. World War I merely hastened its demise. What had changed was the power structure of the world. By the early 1900s, the United States had already become a bigger economy than Britain, France and German put together.<sup>26</sup> But up until 1913, unlike the other great powers, the emerging superpower did not have a central bank! This meant that its monetary power was not activated.<sup>27</sup> But in 1913 the Federal Reserve System was created and it was this event that gave the United States the potential to kill the gold standard, to make it a "barbarous relic." Keynes was quite explicit: he said that the gold standard could not operate as it had in the past.<sup>28</sup> The gold standard, Keynes said, was now (i.e. in the 1920s) dominated by the monetary policies of "a few" central banks. This was a tactful way of saying that the gold standard now depended on the policies of the Federal Reserve. Keynes had witnessed the devastating price decline in the United States in 1921, a decline that was caused by the Federal Reserve's liquidation of government assets it had bought during the war. It was the Federal Reserve System that dominated the gold standard for the rest of the century.

The European countries did indeed try to set up a "restored" gold standard in the middle 1920s to get away from its dependence on the dollar. But it failed precisely because no account was taken of the fact that gold dollar prices in the 1920s were 40 per cent above pre-war prices, drastically reducing gold liquidity.<sup>29</sup> The restoration of the gold standard undervalued gold and set in motion the monetary deflation that resulted in the Great Depression.

---

<sup>26</sup> The title of a book by Whitelaw Reid, published in 1907, was *The Greatest Fact in Modern History*. The greatest fact was the rise of the United States. See my Nobel Lecture, "A Reconsideration of the Twentieth Century," *American Economic Review* 90(3) 2000 (June): 327-339.

<sup>27</sup> The best analogy to a country on the gold standard without a central bank is a country with no tariff policy. Just as free trade might be the most efficient system for the world economy, so a monetary system without national central banks be the most efficient system for the world economy.

<sup>28</sup> Much has been made of the importance, before World War I, of London as the world's financial center, of the pound as the most important currency in the world, and of the Bank of England as the monetary leader or conductor of the gold standard orchestra. This view has a high element of truth. But the role played by the Bank of England should not be exaggerated. More often than not, it followed rather than determined the the great swings in the international business cycle.

<sup>29</sup> This imbalance was widely recognized by economists like Cassel, Rist and von Mises, who warned of the deflationary consequences of return to gold, and it was also recognized by John Parke Young, the young professor who headed the US Gold Commission in 1925.

A kind of convertible dollar standard could have worked in the 1920s. Had the rest of the world simply fixed their currencies to the convertible dollar—as they did after World War II—there was ample gold to support it. Whether it would have worked in the long run would have depended on whether the United States were willing and able to keep its own price level stable, and whether that kind of commitment would have been acceptable to the rest of the world.

Had the idea of a dollar standard come up for negotiation in the 1920s, there would have had to be discussion of reciprocal commitments. If the rest of the world took upon itself the responsibility of fixing their currencies to the dollar, what reciprocal commitment would have been desirable or necessary on the part of the United States? Even though the issue did not come up in the 1920s, the question is not irrelevant because it did arise in the Bretton Woods Conference and proved to be a sticking point during the Bretton Woods era and in the dollar standard system set up at the Smithsonian system and today in any currency area that has a monetary leader. The general question is: to what commitment does the monetary leader (if there is one) in a currency area commit itself?

Three possibilities in the 1920s might have presented themselves if monetary experts had been thinking along these lines: the first is that the United States stabilizes the dollar price of gold; the second is that it stabilizes its own price level; the third is that it stabilizes an index of the world dollar prices. As long as one of these commitments is adhered to, and accepted by the relevant part of the rest of the world, the dollar standard—so anchored—might have been feasible.

Of course, such an agreement could not have been worked out in the 1920s. The rest of the world was in no mood to grant to the United States, a ‘johnnie-come-lately’ to the field of the world power, such a coveted position. Also, the dollar was not just externally convertible but internally redeemable. Moreover, neither of the principal determinants of the US and British policy—Benjamin Strong of the New York Federal Reserve and Montagu Norman, Governor of the Bank of England—had any clear idea of the precarious equilibrium that would be created by a restored international gold standard.

Twenty years later, when the Bretton Woods discussions occurred, the problem was similar but the situation looked quite different. The war was still going on, and the Allied countries were willing to accept the leadership role of the United States. A fixed exchange rate system was agreed upon but Article IV-4(b) was inserted into the agreement to exempt any country from intervention in the exchange market if it stipulated that it was “buying and selling gold freely.” This was the clause that produced the asymmetrical system in which the rest of the

world fixed their currencies to the dollar, while the United States fixed the dollar price of gold. Convertibility for foreign monetary authorities was the reciprocal commitment made by the United States, a reciprocity that was considered very important in any agreement between sovereign countries.

By the late 1960s, when the Bretton Woods arrangements got into trouble, the world had learned more. There was first an acknowledgement that the dollar was unique and it was the dollar, not gold, that was the principal instrument of intervention. Second—and this despite the flexible exchange rate system that resulted within the next decade—there was a virtually universal desire to preserve the fixed exchange rate international monetary system. Third, there was a universal understanding that the international monetary system should not drag the world economy into another great depression. Fourth, and unfortunately, there was a tacit agreement—especially in the United States—that the official price of gold should be kept at \$35 an ounce.

The only solution consistent with the existing system was a reversal of the policy mix! Under the framework set up at Bretton Woods, the U.S. had the responsibility to maintain the price of gold and the other countries – the responsibility for maintaining exchange rates. But other countries had an indirect influence on the US monetary policy. Depending on whether they cashed in dollars for gold at the US Treasury, or the opposite (or even just by holding on to dollars) they could seek to influence the U.S. in the direction of tightness or ease. If instead the United States governed its monetary policy in pursuit of domestic stability and the rest of the world governed its portfolio policy according to the need to preserve the dollar price of gold, a satisfactory resolution of the international problem might have been achieved.

It could be argued that a tacit agreement to reverse the policy mix had already been informally worked out in the 1960s. As long as the US monetary policy suited Europe, the latter would not “break the bank” by converting too many dollars into gold. But in the late 1960s combined fiscal pressures from the war in Viet-Nam and the domestic war on poverty led to looser monetary policies that “exported inflation” to Europe. Countries like Germany and France resented the expansionary monetary and fiscal policies that forced Europe to buy up dollars in order to prevent their currencies from appreciating. Whether they acquiesced in the immediate monetary consequences of the surpluses or sterilized them—aggravating surpluses in the future—the effect was unwanted inflation. But despite this resentment—which was compounded by the resentment of the US role in Viet-Nam—risking a rupture of the

system could be worse than submitting to the unwanted surpluses so long as they stayed within tolerable bounds.<sup>30</sup>

A reversal of the policy mix would have required acceptance by the other major countries of the United States as monetary leader, and acceptance by the United States of its special role as head of a monetary area (in this case virtually worldwide). The US commitment would have been to seek the “monetary stability.” An agreement would then have been needed on what constitutes the monetary stability. One possibility—the route that would be chosen by a world central bank—is that the U.S. stabilizes the global price index. A less ambitious target and one more acceptable to the U.S. would be that the U.S. stabilizes its own price index. This last commitment might well be acceptable for an anchor that represented 25-30 per cent of the global output.

No agreement of this kind was made to save other dominated systems, such as the “convertible” dollar standard of the 1960s, the pure dollar standard set up at the Smithsonian Institution, or the ERM centered on the DM. Because there was no explicit and precise agreement on the responsibilities of the anchor country, there was no way in which blame for the breakdown could be assigned. To this day there is no general consensus on why the gold exchange standard broke down in 1971, why the Smithsonian system broke down in the spring of 1973, or why the ERM all but collapses in 1992.<sup>31</sup>

## **11. Problems with a Dollar Standard**

A problem with any kind of monetary system that uses a national currency is the issue of trust in the area’s monetary policy. Had European countries and Japan in the 1920s accepted a de facto dollar standard it would have implied a trust that apparently could not be generated. This solution would have avoided the great deflation of the 1930s.<sup>32</sup> It was not adopted because there was no framework for discussions of these issues in the 1920s and because there was a belief in Europe that the return to gold would restore “la belle époque” of the pre-

---

<sup>30</sup> This was especially the case after the Hague Summit meeting in December 1969, when plans for the European Monetary Union were first tentatively launched.

<sup>31</sup> The benefits to the U.S. included seigniorage and power, at the expense of some independence of monetary policy. A new factor, however, had appeared after the Hague Summit in December 1969, which inaugurated plans for European Monetary Union, an idea which the US Treasury decided to treat with „benign neglect.” A continuation of the fixed exchange rate system would have helped Europe to achieve its objectives of monetary union by 1980, whereas a breakup of the system into flexible exchange rates set it back for decades.

<sup>32</sup> Had they been willing to do so and not returned to the gold standard there would not have been that increase in demand for gold that led to the deflation of prices that started in 1929. While there was not enough gold at the world (and dollar) price level to sustain an international gold standard of the type that existed before World War II, there was more than enough gold to sustain a gold exchange standard based on the dollar.

war years. Three outstanding economists in the 1920s—Charles Rist, Ludwig von Mises and Gustav Cassel—warned that a return to the gold standard would bring on a terrible deflation, but their warnings went unheeded.<sup>33</sup>

When the problem reappeared in the late 1960s, with political tension high, there was little willingness to accept the dollar solution, although the major countries had moderated their conversions of dollars into gold. After the U.S. took the dollar off gold, however, the European countries lost their threat. At the December 1971 meeting at the Smithsonian Institution, much attention was paid to the US willingness to “devalue the dollar,” i.e., raise the official price of gold, but the official price of gold had now become inoperative. In fact, the world moved onto a dollar standard, a system that would have been soundly rejected only a few years or even months earlier.<sup>34</sup>

But the failure to acknowledge that the system set up at the Smithsonian was in fact a dollar standard meant that there was no explicit consideration of the *quid pro quo* offered by or exacted from the monetary leader. If the other countries fixed their currencies to the dollar, what commitment with respect to its monetary/fiscal policy would the United States make in return? Should the U.S. maintain the “price stability” and if so, should the price index represent the basket of all the goods and services in the currency area, or simply the US basket? The fact is that the issue did not apparently come up. The system agreed to was a dominated system, the “Roman solution.” It broke down in the spring of 1973 because the US monetary policy was perceived to be too expansionary for Europe. Despite that, the alternatives to the dollar standard were worse.

There is an analogy here between the breakup of the 1971-73 dollar standard and the difficulties experienced in the Exchange Rate Mechanism (ERM) of the International Monetary System (IMS) in the early 1990s. By the late 1990s, the ERM was generally recognized as a DM area. But there was no agreement over the need for the Bundesbank to follow a monetary policy that was in the general interests of the Community rather than simply the interests of Germany. When the German economy was confronted with the asymmetric shock arising from the expansionary fiscal policies associated with the unification, the German inflation rate started to rise sharply. The Bundesbank was committed by German law to maintain price stability and dutifully tightened its monetary policy. But this

---

<sup>33</sup> Keynes focused on the problem of the dollar-sterling exchange rate and missed the issue of the global problem until 1928, when he saw the implications of the French monetary law enacted in that year which greatly increased gold requirements for France and the rest of the world.

<sup>34</sup> The Bundesbank, however, in its Annual Report in 1971, acknowledged that the system had become a „dollar standard.”



led to a strong appreciation of the mark against the dollar, which fell to an all-time low of DM 1.34 in the late summer of 1992, putting severe pressure on all the other Community countries that were fixed to the DM. There was a clash of opinion between Germany and other governments, and Britain complained about what it thought was an egocentric German policy. Both sides were right in their own terms on this issue and the mistake was that there was no sharing of the monetary control levers or any no explicit agreement for the monetary leader to take into account the interests of its partners.

In general the major problem with a currency area-whether local or world-wide-is to solve the problem of governance with respect to its monetary policy. A currency area dominated by a monetary leader could work as long as the other countries could accept the monetary decisions of the leader. When the countries are small, and the leader is both large and has a tradition of having a more stable monetary policy than the other members, a dominated system can work very well. But if the power configuration is more mixed, an agreement to form a currency area based on a dominant monetary leader should be accompanied by a commitment on the part of the monetary leader to take into account the interests of the other members, whether that commitment be expressed in the form of an explicit currency area price target, or some other indication of monetary stability.

## **12. The Case for Stability of Exchange Rates**

The political feasibility of a monetary standard based on a national currency depends on the size of the country and the configuration of power in the rest of the world. If the US economy represented 90 per cent of the world economy, there would be no alternative to the dollar standard. Or if the rest of the world were composed of tiny states, even the US economy that was only 25 per cent of the world economy would make a dollar standard inevitable.

The US has a current account deficit equal to 6 percent of GDP and Debt /GDP ratio of something like 30 percent. Since 1989 the build-up of net international indebtedness of the United States has built-up to over 30 percent of GDP. Next year it would be 35 percent and the year after – 40 percent. This building poses two connected types of risks to the international system. One is that the debt will be held only at the lower levels of the dollar; the other is that to the extent that the indebtedness is denominated in dollars, it presents an

incentive for the U.S. to inflate more than it would otherwise want to. The latter possibility cannot be ignored.<sup>35</sup>

Currencies are not equal in terms of power. It is one thing for the United States to say, “Let’s have flexible exchange rates”, when the U.S. represents over a quarter of the world economy and intra-US trade is already conducted under the fixed exchange rate system that is implicit in any common currency area. The position of smaller countries is completely different. Most of the smaller countries in the world don’t have any comparative advantage in the production of money and would be better off using a large and stable foreign currency or even a commodity like gold. The older classical economists understood this, as the quotation I made from Mill demonstrates. But the problem Mill mentioned has become much more important with the proliferation of small independent currencies, many of which are mismanaged.

The modern fashion for independent national currencies is a twentieth century phenomenon. In 1900 there were probably only at most a couple of dozen central banks in the world. Now every country has its own central bank and they produce their own currencies. Many of the central banks and national currencies arose as a result of the instability of the dollar-gold standard that was so apparent in the early 1920s. Many more currencies came into being with the ‘disimperialism’ of the post-World War II era. Most of the currencies have no recognition outside their own domain, but they remain badges of independence. In terms of purchasing power, they are not large: Bill Gates could afford to buy up the entire money supplies of half of the countries in the world.

It is not my purpose here to discuss the contentious issue of fixed versus floating exchange rates.<sup>36</sup> But I want to dispose of one fundamental mistake, the notion that a flexible exchange rate is a “free market” idea. There is a myth that a flexible price is a mark of freedom. But the central banks that produce national currencies today are the government monopolies. When the exchange rate is flexible, the central banks fix the quantity of money. There is nothing “free market” about the “quantity-fixers.” When, on the other hand, the exchange rate is fixed to a large and stable anchor currency, the quantity of money is variable and its price is fixed. Whether a country should have a fixed price of money and flexible supplies, or flexible prices

---

<sup>35</sup>See my paper, “The Optimum Balance of Payments Deficit and the Theory of Empires” in *Stabilization Policies in Interdependent Economies*, (eds. P.Salin and E.Claassen). Amsterdam: North Holland Press, 1971. 69-86, which shows how the monetary leader of a currency area can benefit from a higher inflation rate when its partners hold its currency; the argument holds a fortiori when interest-bearing debts are denominated in the monetary leader’s currency.

<sup>36</sup>The interested reader could access the „Nobel Monetary Duel” between Milton Friedman and myself in December 2000, printed in eight issues of the National Post of Canada, on my website: [www.robertmundell.net](http://www.robertmundell.net).

and fixed quantities, is not an issue of free or controlled market institutions, but rather a question of whether a country wants to be part of an international system or independent of it. There was a time when laissez faire in the monetary sphere was a route to freedom and efficiency. The international gold standard was essentially a free market institution with free trade in gold maintaining gold parties. It is true that government was involved in establishing the currency unit, in the same way that, for example, the government establishes the side of the road for horses or cars. But even here the government is not absolutely necessary. If the government vacated the money industry, the free market institutions under competition would gradually ensure that one or only a few monies existed. But it is important to realize that free trade in gold would ensure fixed exchange rates. There is no equivalent to that with the modern systems of paper money.

Currencies are not just mediums of exchange but units of account. This latter attribute of money is, as Keynes insisted in his *Treatise on Money*, the most important function of money. From the standpoint of a unit of account, there is nothing wrong with price fixing; indeed, it is the essence of a unit of account. *Qua* units of account, price-fixing is better than quantity fixing. The denominations in any currency system are fixed to one another. Two five-dollar bills always exchange for one ten-dollar bill because the government stands prepared to back it up by intervention. What kind of a monetary system would result if the government fixed the quantities of five- and ten-dollar bills and let the market price between them fluctuate up and down?

Three years before the euro made its appearance as a coin and paper currency, bilateral exchange rates within the euro area were absolutely fixed; this took place on July 1, 1958. Because there was confidence in the exchange rate parities, there were no speculative capital movements and hedge funds couldn't make a dime on intra-euro exchanges. Daily turnover in cross-border transactions went down by \$300 billion a day. Price-fixing worked within the EMU until the introduction of the single currency made it unnecessary.

I come back to Keynes' message expressed in 1923 in *Tract on Monetary Reform*. He argued internal stability was more important than external stability when both were impossible. If a country had a choice of keeping the currency fixed to gold (or the dollar), or keeping the price level fixed, it was more important to stabilize the price level. I completely agree. But this is not the usual situation. Keynes was looking at the one episode in the post WW I period when the US price level doubled from 1914 to 1920 and then fell in 1921 by 30 per cent! Keynes noticed this most unusual episode and concluded that it would be ruinous for Britain to fix its currency to gold and the dollar if it meant that the British price level would

have to fall so precipitously. It was better for Britain to let the pound depreciate and keep its price level on an even keel.

This was a unique post-war phenomenon, and does not represent the usual cases. Moreover, Keynes later on in the same book goes on to say that it is much better to have both price stability and fixed exchange rates if it is possible. This is the best of our worlds. The gold standard did a reasonable job of keeping both exchange rates and price levels stable. Keynes believed strongly in the importance of exchange rate stability as an element of monetary integration and that is why two decades later he championed the fixed exchange rate gold exchange standard agreed upon at the Bretton Woods conference.

### **13. Exchange Rate Stability: The Next Steps**

Let us suppose that the U.S. and the EMU agree to work toward a stabilization of the dollar-euro exchange rate. An alternative would be to include Japan, and perhaps the U.K. and China. But an agreement between the United States and Europe would be much easier to negotiate because it could start with informal discussions. If an agreement between Europe and America could not be achieved, then neither could the larger agreement. But if it did work, other countries would have a strong incentive to join. The policy of stabilization goes against the current thinking in both the United States and Europe, where the general view is that the exchange rate instability can be ignored. But it would not have surprised John Maynard Keynes, Lord Robbins, Sir Roy Harrod, Jacob Viner, or Alfred Marshall.

The basic idea would be to follow the policies that would hold in a monetary union and organize the joint monetary policy that would stabilize the general Euro-American price level. Once it is set up, the arrangement would not be much more difficult than it is now for the FRB or the ECB to manage price stability. There are six steps that would be needed to bring this agreement into effect: (1) decide on a common price index; (2) set a target inflation rate; (3) set an upper and lower limit on the exchange rate;<sup>37</sup> (4) establish a joint monetary policy committee (MPC) to decide on monetary policy; (5) make an arrangement for sharing seigniorage; and (6) gradually close the exchange margins.

The precise mechanisms for carrying out these steps need not detain us long. Perhaps the exchange rate fixing needs some comment. Intervention could be conducted entirely by one

---

<sup>37</sup> The exchange rate could be fixed with each central bank standing ready to buy the other currency at its lower limit. In the initial stages, it might be desirable to allow some exchange rate flexibility to allow for different interest rates, but over time there could be complete convergence.

party, intervening at both upper and lower limits. A more cooperative solution would be for each party to support the other currency at its lower limit. Let us suppose the central “parity” of the exchange rate was \$1.15, and that the upper limit of the euro was \$1.30 and its lower limit was \$1.00. With the cooperative arrangement, the ECB (or the ESCB) would buy dollars at \$1.30 and the U.S. would buy euros at \$1.00. The mere existence of these margins would ensure—as long as they are credible—that they would never be reached.<sup>38</sup> Periodically, narrower margins can be informally established, groping for the central rate that would be best for the joint monetary policy.

The problems of the U.S. and the EU finding such an equilibrium would be in principle any more difficult in setting the equilibrium rates between France, Germany and Italy in their approach to the monetary union. It is sometimes thought that a monetary union across the Atlantic could not work because the areas are too different from one another. But actually the dollar, euro and yen areas are more similar to one another than the twelve countries of the EMU are to one another.

With the dollar-euro rate fixed, there would no longer be a strong argument for the U.K. to stay outside the EMU. Soon there would be 25 countries in Europe included in the monetary union along with the United States. It would be a large step toward a restored international monetary system.

#### **14. Creation of the INTOR**

Once the exchange rate margins between the major currencies have been narrowed, a weighted average of those currencies, the DEY, could be used as the platform on which to build the global currency, which I will call the INTOR. Let us suppose that the dollar, the euro and the yen have stabilized the exchange rates within narrow margins and that the IMF Board of Governors designates the DEY as the anchor for the INTOR. The INTOR itself would be backed by foreign exchange reserves, largely DEY currencies and gold. Each member would keep its currency convertible into INTORS and accept them at par. Participating would be voluntary. Countries that wanted to float could continue to do so. But countries that participated would have to let their monetary policies be governed by their balance of payments.

---

<sup>38</sup> A more sophisticated arrangement would be for the surplus country to intervene (without sterilization) in a deflationary environment and for the deficit country to intervene (without sterilization) in an inflationary environment, a policy that would be in the right direction for a stabilizing monetary policy.

The INTOR would be a common global currency but not a single currency. Countries and areas would keep their own currencies which would circulate along with INTORS. To get the full benefits of the monetary union, countries might want to have a currency reform that would make the national franc, or lira, or peso equivalent to one INTOR.

Is there a model for a fixed exchange rate monetary union? Apart from the euro area itself (between 1999 and 2002) there is the case of the Belgian-Luxembourg monetary union that lasted from the 1920s until 1999, when both national currencies were replaced by the euro. In the joint monetary union, the monetary policy was determined by the Bank of Belgium, while the Luxembourg franc exchanged at par for the Belgium franc. Luxembourg francs remained in circulation under the control of the Luxembourg Monetary Institute. The dominated arrangement worked because Belgium is twenty times the size of Luxembourg.<sup>39</sup>

Some countries might prefer monetary independence rather than participating in a global monetary arrangement. This is certainly the case of all those countries that have inflationary policies and want to use the inflation tax as a source of fiscal revenue. Some other countries opt out because they want to set their own inflation rate.

To sum up, the basic plan for a world currency is to start with a cooperative agreement to minimize exchange rate adjustments among two or more of the major currencies that have a tradition of price stability, and use those currencies as a platform on which the IMF Board of Governors, following a reconvening of the well-prepared Bretton Woods-style international monetary conference. The provisional name I would give to the currency is the INTOR. With the euro established as a success, the time is ripe to put international monetary reform back on track.

It is just a little more than sixty years since that Bretton Woods conference that established the fixed exchange rate monetary system that governed the post-war era. The message to the Congress from President Roosevelt that I quoted in my introduction concluded as follows:

“This point in history at which we stand is full of promise and of danger. The world will either move toward unity and widely shared prosperity or it will move apart into necessarily competing economic blocs.

---

<sup>39</sup> Incidentally, the fact that Luxembourg has had no independent monetary policy for eighty years is a major reason why it has the lowest public debt in Europe.

We have a chance, we citizens of the United States, to use our influence in favor of a more united and cooperating world. Whether we do so will determine, as far as it is in our power, the kind of lives our grandchildren can live.”<sup>40</sup>

Those words seem just as applicable today as they were then. Thank You.

**Grzegorz W. Kołodko:** Thank you, Bob. Now we have twenty minutes for remarks, comments and questions. In the first Distinguished Lecture Bob was actually telling a joke, how to fix the euro against the dollar – it was one to one and there was a suggestion to use yens as the pence and the Polish zloty as the quarter. I gave you a zloty; I hope you still keep it. Strangely enough, today the exchange rate of dollar is almost identical to what it was when you were here for the first time.

**Antoni Kukliński, Warsaw University:** I have two questions. What is the relation in Europe between the monetary union and federal Europe? Do you think that you need federal Europe to keep the European Monetary Union in a good shape in the following years? There is the second, similar question. If we have a global economy, if we have a global currency, should there be a global government?

**Robert A. Mundell:** When the euro came into being, the big question was: could you have one currency and twelve governments? This is a very interesting question. Look first at the United States. The United States has a big advantage in making power as it has one single strong government. When the U.S. got a central bank in 1913, it was important to disguise it because of mainstream America’s reluctance to accept a central bank. So it was called the Federal Reserve System. It was split up into twelve Districts to create the illusion that the “money power” was decentralized. Throughout America’s history there has been a running battle between the proponents of centralization versus those of decentralization (the state’s rights).

I don’t believe that a single currency in Europe makes it necessary to have a strong central state, although I do believe that the state must be strong enough to defend itself against invasion—which would create a currency crisis. In an earlier paper, I wrote that historically strong currencies have been identified with strong states. In the case of the EU, however, I

---

<sup>40</sup> „President Roosevelt’s Message to Congress on Bretton Woods Money and Banking Proposals,” THE WHITE HOUSE, February 12, 1945. Available on the internet: <http://ibiblio.org/pha/policy/1945/450212a.html>

believe that the NATO solves this problem. As long as Europe is part of a strong alliance like NATO, it does not have to create a strong central state to defend itself. Apart from this element, you should realize that both bimetallism and the international gold standard created monetary unity in much of the world without the existence of a world state. There just has to be an agreement on the rules of the game.

You do need some kind of centralization to enforce fiscal discipline within the monetary union. The Growth and Stability Pact was designed to provide that discipline. The problem exists because of the free-rider issue: the creation of the euro takes away the possibility of devaluation and hence allows the countries to build up much larger levels of debt without fear of default, particularly since it is unlikely that a member of the union would be allowed to default. But if the countries don't discipline themselves, tighter control is going to be needed.

Europe is now going ahead trying to create the conditions for the government of Europe, and I think that a step in this direction is definitely needed. You have to go in this direction not so much for the monetary union as for Europe to have a more prominent voice in the world affairs. I just hope that the decisions that are made in this respect are not going to try to create a too centralized system. I think Europe will better realize its potential with a highly decentralized system in many spheres. Some of the countries in Eastern Europe have only recently escaped from an oppressive yoke, and need to have a chance to express their nationalities in individual ways. The greatness of Europe at its best has been unity in diversity.

Whether you need unity in the form of tax harmonization is another question. Harmonization to a bad tax system would be a step backward. My own view is that you cannot harmonize taxes between countries that have very different levels of government spending in GDP and different levels of the welfare state. I am also disturbed by the pressure to harmonize taxes on investment, where harmonization means averaging up. I would favor rather tax competition. My model for Europe would be an Empire with a common currency but major decision-making at the national level.

**D. Mario Nuti, London Business School and University of Rome “La Sapienza”:** When you listed your 20 Ds of the supply-side economics, I wondered whether the 21<sup>st</sup> should be added. In my view, what happened in the last couple of years is a deluge. You are proposing a global currency which is an optional global currency. I mean, in a sense, we already have a system where anybody can choose the currency they like. I do not think it is really an optimal set-up – one in which you still have multiple currencies; you need a single currency if you



want to accompany the global economy. From this point of view, I suppose you could argue that if you want total globalization, three currencies or even two are still long way to what you achieve with a single currency. And also you suggest that the euro, the dollar and the yen can be a platform for the INTOR but once you get to a single currency you are in island of stability on the way where you are probably going to get a lot of turbulences, as we did in Europe with the ERM before the euro was actually introduced.

**Robert A. Mundell:** The basic thing right now is that countries do not have an option of being part of a world currency. If a small country wants to stabilize its currency against another currency it can of course do it. MERCOSUR is talking about a common currency in South America, Africa is creating the whole system of common currencies, the Caribbean and America is going ahead creating some kind of currency areas. These are an expression of the very realistic issue that small currencies do not have a place in the world. The big theorem is that a small country that has a very weak currency can by fixing its exchange rate credibly to a strong currency take on all the power of a large currency area.

You are arguing that a multiple currency union would not be as good as a single currency union. But I don't think a global single currency could not be achieved without a global government. To enforce a single currency would involve big problems of organization. Moreover, the perennial problem with a single currency is that countries would create substitutes for it.

Suppose suddenly there is a single currency, everybody uses it. What is going to prevent units and groups of creating their own substitutes for it that eventually could expand? You would have to have drastic prohibitions on the creation of substitutes. In the equilibrium I am proposing you would have 75 per cent (or so) of the money supply provided by the national currency and the rest by international money.

**Krzysztof Oblój, WSPiZ:** There is a report issued very recently which was discussed in *Financial Times* that compared longitudinal prices in Europe since the introduction of euro. The general conclusion is that there is no convergence whatsoever, and the differences remained at the same level, much higher than in the United States. Could you comment on this?

**Robert A. Mundell:** I haven't seen the report. But there is a problem with our price indexes. I know this issue in the Italian context. Since the euro was created, most people have noticed

prices rising faster than the indexes show. This could occur because on a purchasing power parity basis, Italy was relatively cheap compared to, say, Germany. Convergence of prices would mean that Italy's prices have to rise, particularly in the international goods industries. But over and above this there seems to be a rounding-up of prices because of a kind of numerical money illusion. Italy came into the euro zone at something less than 2,000 lire per euro. But items that originally went for 30,000 lire and should be priced a little below 15 euro are now edging up toward 25 and 30 euro. I have seen this in the restaurant prices and the experience has been anecdotally confirmed by dozens of sources. Unusual experiences like this are bound to show up ultimately in the figures.

My own view is that most of the differences in perceptions will ultimately find rational explanations. An example is Greece. The inflation rate of Greece over the past three years has been higher than in many of the other countries. But this should have been expected; Greece devalued by about 14 per cent before they went into the eurozone at the insistence of the Community. It may have been a mistake. If it was, it will show up in an excess lift in prices.

**Xia Yeliang, Peking University:** Would you recommend a common currency for APEC countries? If you do, what would be the possible barriers and difficulties in achieving it?

**Robert A. Mundell:** First of all, I have said many times in Asia that I would not recommend a single currency in Asia. The best you can do at the beginning is to fix the exchange rate zone. But I don't think you could persuade China and Japan to scrap their national currencies. The best kind of union one could expect would be a multiple-currency monetary union.

If Asia is going to have an Asian currency to use along with its national currencies, the first step would be to agree on an external anchor. The best external anchor for Asia at the present time would be the US dollar. If the Asians used the dollar as the first step toward the creation of an Asian currency area, it would be really starting off something close to an APEC currency area using the dollar. I argued at the APEC meeting in 2001 in Shanghai that an APEC currency area would be easier for Asia than an Asian currency area at the present time. That would be the first step toward an Asian currency.

If you got that APEC currency area, you have already an area in the world that covers 55 per cent of world GDP. Then Europe would want to start to talk about the dollar-euro exchange rate because this would then become much more important and the total mass of the APEC area would be double that of the mass of the GDP of Europe. The APEC currency area

is in some respects easier to create than an Asian currency area because it diffuses the sometimes confrontational relationship between China and Japan.

**Grzegorz W. Kołodko:** Thank you very much, Professor Mundell. It was our great honor to have you here again, and I hope to see you with us the next year.

International monetary system motivates and encourages the nations to participate in the international trade to improve their BOP and minimize the trade deficit. It has grown over the years as a single architectural body with a vision to integrate the global economy. Some of the important achievements of the international monetary system over the years have been the establishment of World Bank and International Monetary Fund in the year 1944. The establishment of IMF and World Bank is the result of the agreement among nations to set a body, which promotes and supports the international trade. The features and stability of the world monetary system are closely dependent on the structure of the world economy, the balance of forces and interests of the leading countries. If these conditions do not match, the crisis of the world monetary system periodically sets in, which is resolved by transforming the existing monetary system. The emergence of stable currency relations refers to the XIV century. and has a regional character. This is the functioning of bill centers in Lyons and Antwerp that served international trade in Western Europe and attempts to mint "regional money" that serve international settlements between principalities and kingdoms in Northern Germany.