

## **Should the Euro-Dollar Exchange Rate Be Managed?\***

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\*Revised version of the lecture presented in Luxembourg on March 8, 2000 on the occasion of the publication of *The Euro as a Stabilizer in the International Economic System*, (Robert Mundell and Armand Clesse, eds.) Boston/Dordrecht/London: Kluwer Academic Publishers.



I take great pleasure in introducing our book, entitled *The Euro as a Stabilizer in the International Economic System*, published this very day by Kluwer Publishers, and edited by myself and Armand Clesse. I think you will find the essays in this book, which were first presented at a conference in Luxembourg as recently as December 1998, immensely stimulating. They are divided into three topics: (1) the viability of the euro; (2) the management of the euro; and (3) the euro in the international economy. The book concludes with summaries of the dialogue in the six sessions of the conference. The timing of the book could hardly be better, in view of the intense discussions of the impact of the euro on the international monetary system and concern about the dollar/euro exchange rate.

I do not intend today to discuss the individual contributions in the book. I do want, however, to call to your attention the dedication of the conference and the book: *To Charles P. Kindleberger and Pierre Werner, pioneers in the theory and practice of the European and international economic and monetary system*. These are two of my heroes. I have known Charles Kindleberger since 1955 as a student at MIT, and you can imagine how much his friendship and inspiration over the years meant to me, with his infectious enthusiasm for economics and history, and his wide appreciation of the connections between theory, policy and history. I made the acquaintance of Pierre Werner only recently, but I have long admired his pioneering contributions to what later became the euro in the early 1970s. The euro has many fathers, but Pierre Werner is certainly one of them.

The advent of the euro, as I argued in my paper in the book, is one of the most important events in the international monetary system in the 20<sup>th</sup> century. The long-run significance of this event should not be lost sight of it in concern over the short-run management of the euro. We can already see signs of the excitement the creation of the euro has caused in other countries and the “demonstration effect” that is manifested in discussions of new currency areas in all the continents. Think of it this way: for two and a half decades, the international monetary authorities and the United States have been pushing exchange rate flexibility down the throats of developing countries, and now they see eleven rich European countries, not only abandoning flexible exchange rates but going all the way toward scrapping their national currencies for a single continental currency. They are beginning to believe that they should do what the European countries are actually doing rather than what the authorities are saying!

It is unfortunate that the long-run impact has been somewhat eclipsed by concern over the weakness of the euro in the exchange markets in the short run. To many it came as a surprise that the euro was weak against the dollar in the

first year of operation. Should this have been a surprise? What did we think about the prospects for the event before it came into being? The essays in the book and the dialogue took place before the euro arrived, so you can find out what the authors thought before the event by reading the book! But the weakness of the euro has raised the question of whether or not the European Central Bank (ECB) should intervene to support its currency in the foreign exchange market. That indeed is the subject of my lecture today.

To set the record straight, I should say what I thought before the event. My views are contained in the fifth essay in the book, entitled “The Euro and the Stability of the International Monetary System.” In that essay I did not make predictions about the euro, but I did emphasize that a very important factor to take into account would be its effect on liquidity. In that essay I outlined the characteristics of great international currencies: size of transactions, domain, stability of monetary policy, absence of controls, strength and the continuity of the central state and the “fall-back” factor, or value of the money commodity if it became demonetized. Then I went into a discussion of liquidity effects. There had been rather little discussion of the impact of EMU on liquidity. My own view has been that it would be substantial. I broke the liquidity impact into six different factors: (1) the efficiency effect of the euro; (2) the change in the money multiplier; (3) excess reserve arising from reserve pooling; (4) the “exorbitant privilege” implications of the euro becoming a reserve currency; (5) foreign demands for euros; and (6) diversification from the dollar into the euro. The first four of these effects would make the euro go down, whereas the last two effects would make it go up. But the two factors that would make the euro go up would take time to work out and would tend to be more long-run factors. So what I said was compatible with the idea that the euro would go down at first, even if it would later go up.

The market itself seems to have believed that the euro will rise, because the euro interest rates have been consistently lower than dollar interest rates. I don’t want to make too much of this: given the interest rate differentials that exist, the spot euro has to be at a discount relative to the forward euro. Put another way, the spot euro has to fall to a level that puts it below the rate that is expected to prevail in the future.

Let me now say a few words about the advent of the euro. I think my remarks about the management of the euro will be understood in the context of perspectives on the international monetary system. I will take a leaf here from my Nobel Prize lecture, given on December 8<sup>th</sup> in Stockholm. Bear in mind, this was the last Nobel lecture of the millennium and of the century, so I chose an ambitious title: *A Reconsideration of the 20<sup>th</sup> century*. I looked at it up, at the end, with a comment that we were reinventing, in the last decade of the 20<sup>th</sup>

century, some of the mechanisms that we took for granted in the first decade of the century.

I referred to the first and last decades as "bookends" of the century. The century opened with a highly efficient international monetary system. It worked pretty well, the gold standard, it was not perfect, but it gave the world a kind of a monetary unity and provided an automatic system of balance-of-payments adjustment. The gold standard was looked upon by many as the best of all feasible international monetary systems. No one questioned fixed exchange rates; nobody thought in terms of "one-way options". When the older classical writers wrote about flexible exchange rates and inconvertible currencies, they put the subject in a chapter dealing with monetary pathology. Flexible rates meant failure. Of course a few economists did occasionally propose floating exchange rates in the past, for instance during a famous Swedish episode in the midst of war between Sweden and Russia in the 18<sup>th</sup> century. There was then a twenty-year period of floating exchange rates in Sweden. The same subject was discussed much more extensively in Britain during the Napoleonic Wars, after payments were suspended in 1797. By and large, however, all the classical economists, with no important exception whatsoever, believed that fixed exchange rates made by far the best system. As I said before, the gold standard gave the world an important degree of monetary unity.<sup>1</sup>

The fixed exchange rate system, based on the gold standard, broke down in 1914. Something happened then that always happens when countries, with war-related deficits, are forced off a monetary standard. Whenever countries go off the gold standard, the demand for gold goes down and gold falls in value in real terms. How that worked out was that gold was sent to the United States, the newly credited Federal Reserve monetized it, and the U.S. price level soared, putting the price index at 200, compared to its pre-war base level of 100. In the following year, however, the price index plummeted to 140, at which it remained for the rest of the decade. It is a fact of noteworthy significance that the dollar and gold, fixed together, were both overvalued against commodities in that gold was overvalued by 40 percent against the dollar, compared to its pre-war equilibrium.

It is worth pausing here to notice how the post-war system "gold standard" differed from that before 1914. Keynes had pointed out in his *Tract on Monetary Reform* that "the gold standard had already become a barbarous relic," one of the most misquoted and misunderstood lines in the history of economics! Keynes meant by this that the gold standard had come to depend on the policies of two or three central banks. He might just as well have said one central bank, the Federal Reserve System. The Federal Reserve System made the gold standard impossible. With the U.S. economy in the 1920s five times

larger than its nearest competitor, and the Federal Reserve by far the most important central bank in the world, the future of the gold standard for the rest of the 20<sup>th</sup> century rested with the Federal Reserve. For the next half century, the key price in the world was the dollar price of gold relative to the dollar price of commodities.

Meanwhile, Europe was considering returning to gold. The other major countries had been off gold after the war and would not go back to it until the middle of the 1920s. Germany was the first of the major European countries to stabilize. After the hyperinflation that had raised the price level to 1.4 trillion times the pre-war price level, Germany stabilized with a trillion-to-one monetary reform, which established a workable equilibrium against the overvalued dollar, but which, like the dollar, left the mark overvalued against gold by 40 percent compared to its pre-war value. When Britain went back to gold as its own parity in the spring of 1925, its pound was overvalued against gold to an even greater extent than the dollar and the mark. Only France took account of the equilibrium of the franc against gold, and when it stabilized at a value of the franc worth a fifth of its pre-war value, the franc was substantially undervalued against the pound, dollar and mark and only slightly overvalued against gold. As a result, when the system broke down in the 1930s, the franc was able to hold out against devaluation the longest of any of the major countries.

A breakdown in the system was now inevitable. When European countries went back to the gold standard, gold requirements increased to the level of the gold requirements of 1914. On top of this two other factors had to be taken into account: one was that gold supply, at the lower real price of gold, had diminished; the other was that gold requirements, thrown up by the tensions of the interwar period, had increased. These new requirements were needed because of increased exchange rate uncertainty, the additional liquidity requirements incurred with reparations (which were fixed in gold), the rupture of the adjustment system due to new attention to “internal balance”, and the political uncertainties that increased demands for “war chests”. The ensuing gold scarcity resulted, inevitably, in a scramble for gold, and the deflation of 1929 and especially the early 1930s. All the major countries had at least a 30 percent fall in prices in the 1930s.

The deflation should have been predicted. In fact, three economists did predict it: Ludwig von Mises of Austria, Gustav Cassel of Sweden and Charles Rist of France. They had said that if the world goes back to the gold standard, at current prices (meaning dollar prices here), then we will let ourselves in for a big and unpleasant deflation, and that is exactly what came about.

We should have known it would happen because it had happened more than once before. The lessons of history were forgotten or misread. When the British East India Company put India on a silver standard in the middle of the 18<sup>th</sup> century it inaugurated a long deflationary tendency that would last more than a century. When Britain and many other countries went back to a metallic standard after the Napoleonic Wars, there was a very unpleasant deflation in the 1820s. The deflationary movement lasted for decades, when the price level gradually went back up. We should also have known it from the experience after the Franco-Prussian war, when France, a key bimetallic country suspended specie payments. Germany went onto the gold standard and France felt it would not go it alone on the gold standard. All the Scandinavian countries also went onto the gold standard, Italy and, most important, United States went onto it, and eventually Austria-Hungary, Russia and Japan. This movement to gold created increased gold requirements and caused a long deflation over this period. This was despite the fact that gold was discovered in South Africa in 1885, and the cyanide process was introduced in 1890 greatly increasing the productivity of gold mining. It was only in the early 1890's that the price level started to experience the full influx of the gold from South Africa, and the new supplies gradually overtook new demands and were reflected in slowly rising price levels from 1896 to 1914.

If people had not lost a lot of their monetary memory between 1914-1925, they would have known that going back to the gold standard would cause deflation. Anyway, the lesson many economists took from it was a wrong one; that the system itself was not any good, that it was deflationary and caused unemployment. That undercurrent of error led to the revolution in economic policy toward the “monetary management”: the belief that each country had to manage its currency on its own, something very much like the arrangements we have today.

The Keynesian revolution helped to reinforce those attitudes. Keynes' book, *The General Theory*, published in 1936, was written for a closed economy, and the Keynesian revolution swept the world, especially, or at least, Britain and America. Keynesian closed-economy macroeconomic policies were followed in the post-war period, especially by Britain and America.

The irony was that these policies were followed in a system that became international! The U.S. had devalued the dollar in 1934, establishing a 35 dollar price of gold. The Bretton Woods arrangements involved a fixed exchange rate system linked to the convertible dollar. The United States and Britain, however, were following domestically oriented monetary policies. In 1948, the United States had 70 percent of the world stock of gold, no less than 700 million ounces of gold. U.S. officials confidently followed closed-economy

macroeconomic policies. The authorities felt there was no need to worry about the balance of payments so they could imitate the British practice, which had begun after devaluating in 1931, of sterilizing the monetary effects of gold gains and losses. Whenever the U.S. lost gold, the money base of system would contract, but then the Federal Reserve System in New York would buy an equal quantity of government bonds, cancelling the monetary effects of those gold losses and perpetuating the disequilibrium.

The problem was not just the policies of the United States. Other countries have to take a share of the blame in the malfunctioning of the system. When other countries had a surplus, instead of hanging on to gold they would increase their interest-bearing deposits of dollars in New York, in effect, lending their surpluses back to the U.S. That is why, in 1961, Jacques Rueff, General de Gaulle's economic adviser, was complaining about the asymmetry in the system, how no adjustment ever took place in the United States. Indeed, France tried to force a change in the system, converting much of its dollar surpluses into gold. But most countries did not follow. As long as the price of gold could be relied on as fixed, interest-bearing dollars were better than gold. In fact, most of the adjustment in the fixed exchange rate system was being borne by the rest of the world. The system ultimately broke down because of disagreement over the distribution of the burden of adjustment.<sup>2</sup>

Now to get back to the system as a whole. For the same reason that gold became undervalued after World War I, it became undervalued after World War II. Wartime inflation undervalued gold in World War I; and a post-war inflation in the United States undervalued gold after World War II. But this time reaction to the gold scarcity was quite different. The United States had learned a lesson from its policy of ruinous deflation in the 1930s in the name of convertibility. It was widely understood that in the event of widespread conversions of dollars into gold by foreign central banks, the United States would take dollar off gold. When, in August 1971, the U. K. requested substantial conversions of dollars, President Richard M. Nixon took the dollar off gold, and the fixed exchange rate system anchored to the gold-convertible dollar broke down.

Dislike of flexible exchange rates was so strong at the time that, a meeting at the Smithsonian Institution in Washington in December 1971, countries went back to a fixed exchange rate system centred on the dollar. Because this time the United States made no pretence that the dollar was convertible into gold, it was a pure dollar standard, with Federal Reserve policy calling the tune of world inflation. But in the election year of 1972, the Federal Reserve gunned the money supply and the headline U.S. balance of payments deficit soared. After a second ill-conceived devaluation of the dollar in February 1973, which just



whetted the appetites of speculators, the system broke up into flexible exchange rates.

Freed from the discipline of gold, the United States unleashed a sequence of expansionary monetary and fiscal policies that would result in economic consequences that earned a new name: stagflation, to signify rising unemployment and inflation at the same time. With liquidity exploding, OPEC, which had increased the price of gold *pari passu* with the devaluation of the dollar in December 1971, now activated its latent monopoly power and oil prices soared in two steps in 1974 and 1979. To finance these oil deficits, the OECD countries turned to the euro-dollar market which exploded to unprecedented heights.

Meanwhile, the United States, representing about 23 percent of world output, moved into two-digit inflation rates. In 1974-75 the inflation rates averaged 10 percent and in 1979-81, it averaged over 11 percent. In 1980 the inflation rate in the U.S. was 13 percent. Over this whole period from 1970 to 1981, the U.S. had more inflation than it had in any comparable decade, including the wartime and post-war period 1940-1948; World War I - related in 1914-1924; the Civil War "greenback" inflation, and more inflation than during the war of 1812. The greatest inflation in the U.S. history (not counting the revolutionary war) occurred in the 1970s. The monetary mistakes of the United States in the 1970s are matched only by its even more disastrous mistakes in the 1930s.

It is worth pondering these mistakes - too much deflation in the 1930s, too much inflation in the 1970s - otherwise they will be repeated. In the 1930s, the mistake was hanging on to the faultily-restored international gold standard which was dragging all gold-standard countries into deflation, depression and war. In 1970s, the mistake was abandoning the discipline of the anchored fixed exchange rate without putting in its place a comparable mechanism for controlling the world price level. In these days of transition from one monetary system to another, the United States flip-flopped from monetary, interest rate, and price-level objectives. Reliance on a narrow definition of money ignored the explosion of liquidity in the euro-dollar market.<sup>3</sup>

Because the convertibility discipline of the system had broken down, countries were free to follow domestic objectives. Wedded (at least temporarily) to the Phillips Curve theory of a trade off between inflation and unemployment, they thought unemployment could be cured by more inflation. One consequence was that it pushed taxpayers into higher income-tax brackets, raising the share of taxes, and consequently government spending, as a share of GDP. The inflation-tax-spend gang was in full control. All over the world spending shot up in many countries to over 50 percent of GDP. (For a so-called

free enterprise welfare-state economy, the record would be Sweden's case, where in the mid-1990s government spending got up to 74 percent of GDP).

In the United States, however, there were countervailing forces in operation. The most productive economy on earth was not after all going to be turned into a banana republic. Supply-side economics came to the rescue. This policy school had got its start in the early 1970s. It argued for a change in the policy mix to tight money, to stop the inflation, and incentive-oriented tax cuts to spur growth and employment. In the 1980s presidential campaign, Ronald Reagan became a convert to supply-side economics, and his election brought about that great shift in policy that, after a sharp but short recession in 1982, created the framework for the great boom of the 1980s and the 1990s. From 1982 to 1990, 19 million new jobs were created. After a 9-month recession that started in the middle of the 1990s, growth resumed and, spurred on by the innovations of the "new economy", has continued into the longest uninterrupted boom on record in the United States. Almost 40 million new jobs have been created over the past two decades!

It is worth reflecting on this experience. After getting rid of the gold-dollar based international monetary system, the United States lost its monetary discipline and ignited the greatest inflation since the Revolutionary War. Then a reaction set in. Supply-side economists with tight money and tax cuts engineered a reversal of the policy mix and shifted the economy onto a high-back to monetary stability in the 1990s. This decade of monetary stability in the largest economy in the world is comparable to the decade of monetary stability under the gold standard at the beginning of the 20<sup>th</sup> century. That is why I characterize the first and last decades of the century as "bookends".

Europe chose a different path. Given the power of the dollar as the universal currency, Europeans began to realize they would never have collective policy autonomy with separate currencies. The roots of currency unification had already begun in the late 1960s, but the generalized movement to flexible rates after 1973 represented a great setback, creating the need for a new institution for achieving economic convergence. A big step forward was the creation of the European Monetary System in 1979, and the exchange rate mechanism (ERM) for achieving fixed exchange rates soon after. The ERM gravitated to a DM-centred system, but German unification in 1990 led to a asymmetric fiscal shock in Germany that created a crisis in the ERM, forcing some countries out, and a widening of the margins to keep others in. Nevertheless, the Maastricht Treaty confirmed the basic single currency approach to monetary union outlined in the Delors Report, and that approach was indeed implemented with the coming into being of the third and final stage of monetary union at the beginning of 1999. The eleven countries that finally entered the European Monetary Union (EMU)

went back to a mechanism that operates just like gold standard did but with the euro instead of gold.

The impact of the advent of the euro on the rest of the world has, as I noted at the beginning, been astounding. The introduction of the euro creates a new monetary landscape. Many countries see Europe's example as a model for their own areas. We have now three large currency areas, the dollar, the euro and yen areas, representing approximately 60 percent of the world monetary mass. Moreover, each of these areas has achieved a high degree of convergence from the standpoint of price stability. Dollar and euro inflation rates hover around 2-3 percent and Japan's inflation rate is at, or slightly below zero. We can therefore think of these large currency areas as three "islands of stability".

From the standpoint of the inflation rate within the areas, we are just as well off as we were in the first decade of the century under the gold standard, even though now we do not have the gold standard. Nevertheless we do have two factors that make the system inferior to the gold standard system. First of all, there is no universal unit of account. Second, we have an extreme degree of exchange rate volatility between these different currencies. You should expect volatility between areas that have very different inflation rates, but why should countries with price stability experience instability in exchange rate?

There is a little-known argument made by Keynes in 1923 in favour of exchange rate stability in his book *A Tract on Monetary Reform*. This book has been universally interpreted as a case for price stability or what would be termed today inflation targeting, and that interpretation is not incorrect. But his message cannot be understood outside the context in which the book was written. In his early days Keynes saw the great evils wrought by inflation, and *Revision of the Treaty* and his early post-war books, *The Economic Consequences of the Peace* and *The Tract* argue eloquently against inflationary policies. But in 1921 he saw also the evils of deflation. Between 1914 and 1920, as I said before, the price level in the United States went from an index of 100 to an index of 200. This inflation was reversed by an even steeper deflation, when the price level, in a single year, 1920-1921, fell down to 140. If Britain attached itself to an unstable dollar, it would also have an unstable price level. That is where Keynes got the idea that Britain should instead try to stabilize its *price level*, as the American economist Irving Fisher had also recommended as early as 1912. It was because he felt based on wartime and early post-war experience, that gold and the dollar had both become unstable. Keynes was, however, very careful to say that we should stabilize *the exchange rate* if it was consistent with stabilizing the price level. If gold and the dollar were stable there would be no conflict between internal and external stability. It would be safe for Britain to go back onto gold if the dollar stayed on gold and the dollar

price level were stable. He thought the dominant target should be the price level, but that an important secondary target was the exchange rate. Keynes was at that time a monetarist, but a monetarist who believed that exchange rate stability was important, by contrast with modern monetarists who believe either that the exchange rate doesn't matter, or that the more it moves, the more it reflects "market principles".

If we had price stability of these three large currencies areas, there would be no reason why we should not also have a high degree of exchange rate stability between these three areas. Would it be possible to have a monetary union of these three areas if their inflation rates<sup>4</sup> were compatible?

Let us carry out an experiment: let us suppose we take a case that is a little easier to think of, not the dollar-euro rate, but the dollar-yen rate. I actually made a proposal for a U.S. - Japan monetary union at a conference in San Miguel de Allende in Mexico last October. We were talking about exchange rates and I said: Let us suppose we consider a monetary union between the U.S. and Japan. Let us assume both countries have stable price levels. Now suppose we do for the U.S. and Japan just what 11 European countries did, namely create a single-currency monetary union between two countries. What problems would arise?

There would only be the same problems that exist with the monetary union in Europe. First, they would have to set a target for the inflation rate, say 0-2 percent. Second, they would have to define the common price index that measures the inflation rate, something like the harmonized index of consumer prices (HICP) in Europe. Third, they would have to set up a policy committee - something like the open market committee in the U.S. - selected from the U.S. and Japan to determine policy day to day or week to week. Fourth, they would have to have a formula for dividing up seigniorage, probably in proportion to GDP.

Leaving aside the political issues, would there be any problems with that monetary union? I don't see any. The two countries have similar per capita incomes - much smaller disparities than exist among countries in EMU. Japan's current account surpluses would go far to cancel U.S. current account deficits, and Japan's net creditor position would mitigate the U.S. net debtor position. Trade and investment between the two countries would soar, economies of scale would ensure even greater increases in productivity and real incomes.<sup>5</sup> If such a union existed, who would ever want to give it up?

A single currency monetary union, of course, has political implications that are very significant. It creates a degree of interdependence and requires a long-term commitment, more like a marriage than a casual affair! Countries would at least have to be allies with common defence and security goals, and it would be

better also if they were friends and could tolerate some degree of labour as well as capital mobility.

It would be out of place to discuss the political issues here. So it is natural to ask: Could you achieve the same objectives *without* having a single-currency monetary union? Could you have a monetary union in which both countries would keep their own currency? The answer is, yes. There are a number of possibilities. One involves creating a common currency, as in a single-currency monetary union, another would simply make do with the dollar and yen. Let us consider the common currency example first. Lock exchange rates at ¥ 100 = \$1 and let that unit be the common currency, called the “yendol”. The yendol could replace not all, but, say, half the dollars and yen in existence. In the process of the replacement you follow the four steps I outlined in the single-currency monetary union, i. e. an agreement on the common inflation rate, the method of measuring the inflation rate, the management of monetary policy, and the division of seigniorage. The yen becomes the equivalent of the U.S. cent, and the dollar, 100 yen and yendol are all equivalent. All the advantages of single-currency monetary union have been retained without scrapping the national currencies!

The creation of the common currency, the yendol, of course, involves a political commitment. It would be possible to create a monetary union without the common currency. In this respect it is convenient, however, to establish one of the central banks and currencies as the leader. Because the U.S. is larger, let us choose the Federal Reserve as the monetary leader and agent of the combined agreement. You ask the Bank of Japan to buy and sell dollars at, let us say, ¥ 100=\$1. And that is all the Bank of Japan does. It operates like a currency board. It expands the yen-supply when it buys dollars and it contracts it when it sells dollars. Now, selected officials of the former Bank of Japan integrates themselves with the policy committee of the Federal Reserve, so there is common management of the new currency league system, which is the agent of the two-currency monetary union. The joint policy committee now decides on monetary policy, by buying or selling Japanese or American bonds. You can get to the exactly same effective result as you did with the single-currency monetary union. The only difference is that 1 cent becomes 1 yen. As before you follow the four steps attendant upon any monetary union. Those here from Luxembourg should understand that system better than most: Belgium and Luxembourg have had a two-currency monetary union since the 1920s, with the Luxembourg franc existing passively side-by-side with the Belgian franc.

The point I am emphasizing is that a fixed exchange rate system can work perfectly well between countries today as it worked perfectly well under the gold standard, and it works between any two areas or a single country. It works

between Bavaria and Prussia, and England and Scotland, and the United States and Panama, and it could work well between the United States and Japan, or between the United States and Europe. And if you did it with two you could do it with all three together. We *could* have a single currency union of all these countries from the standpoint of efficient economic management and performance.

Much has been made in recent years of the need for “reform” of the “international financial architecture”. The essence of that architecture is the exchange rate relationships among the three large currency areas and the provision for a world currency. Any kind of reform that leaves exchange rate arrangements as they are now is a sham. If, on the other hand, the exchange rates of the three major currency areas were locked, and a common parallel currency introduced, it would be a relatively simple matter to find a way to make arrangements that could extend that fixed-exchange-rate bloc to those countries in the rest of the world that want to enjoy the benefits of a world currency system.

## **Conclusion**

As I indicated above, I am not going to suggest a single-currency monetary union. There are political implications that would make such a proposal premature at best. A single-currency monetary union in the world at large could be successful only with a much higher degree of political integration and globalization than exists at the present. Apart from that problem, the U.S. might be most reluctant to give up the dollar, the most successful currency of the 20<sup>th</sup> century. Europe would not want to give up its euro after three decades of complex negotiations in creating an instrument that gives Europe an important political cohesion. And Japan might not be willing to give up the yen, a symbol of its national sovereignty, especially if the United States and Europe were to keep their currencies. So, if we talk about monetary union among the G-3, it would have to be a three-currency monetary union or a three-currency fixed exchange rate system.

Now, let us imagine for a moment that we had a smoothly working fixed exchange rate system among the G-3 and that the agreed-upon inflation target was jointly pursued. Under those circumstances, what would be the function of exchange rate volatility? Apart from keeping hedge funds in business, there is none! There is no function for volatile exchange rates between areas that have a high degree of price stability.

Look at the history of the DM-dollar rate, the backbone of the ECU, which was the predecessor of the euro. In 1975 the dollar was about 3.5 DM, five years later the dollar was half that, at 1.7 DM. In February 1985, the dollar was 3.4 DM; it had doubled. In August 1992, at the time of the ERM crises, the dollar was below 1.4 DM. Today the dollar is around 2 DM. Think of that volatility. What is the function of such volatility between two areas that have price stability? Think how much that exchange rate volatility creates volatility in the national financial markets. It is counter-productive.

You can see the same problem with the dollar-yen rate. In 1970 the dollar was ¥ 360. In 1985 the dollar was ¥ 250. In April 1995 it was ¥ 79, in June 1998 the dollar was ¥ 148. The dollar is now back to about ¥105 yen ! What is the function of the volatility, when it creates such havoc in the financial markets? The fact is that the ECB is going to get into trouble if it allows volatility of the dollar-euro rate to be anything like the DM-dollar rate of the past. Just imagine what would happen to confidence if the euro fell in half, to \$0.50? What a catastrophe for the European stability! Or if the euro doubled to 2 dollars - what a catastrophe for European employment! How much better to keep the dollar-euro rate stable!

If we had a fixed system, it is unlikely we would want to leave it. But of course we now have a flexible system, one with a degree of volatility. In the few months of its existence, the dollar-euro rate has moved by 25 percent and expected changes in the rate, with associated capital gains and losses, completely swamps ordinary rates of return on fixed income assets and equities. What are the arguments against intervention to eliminate excess volatility?

A typical argument against intervention in the foreign exchange market is that any kind of intervention is interference with the optimality of the free market and produces a welfare-reducing distortion. This argument, however, has no foundation in economic theory whatsoever. Under certain circumstances it could be argued that a free market in money would conform to the law of maximum satisfaction in the sense of Adam Smith. It could be valid in the case of commodity money competitively produced. But modern money is paper money monopolized by the national government that produces it. There is no argument in economic theory that supports the case that quantity-fixing combined with price-flexing of paper money systems leads to an optimum. No theorem to that effect exists or will ever exist.

A second argument is that intervention “cannot work”. Daily turnover in the foreign exchange market, it is argued, is vast, more than \$2 trillion a day, which is many, many times larger than any conceivable central bank intervention. The speculators will always win! This argument is usually supported by examples where central banks have poured significant sums into the market, to no avail,

like the time in November 1978, when the United States borrowed \$30 billion from its partners to prevent further depreciation of the dollar against European currencies, a huge sum at the time that had no apparent effect on the markets. Other examples include Britain's "Black Wednesday", September 16, 1992, when the Bank of England tried to defend parity of the pound in the ERM by higher interest rates to no avail.

All the examples of failed intervention illustrate mistakes in policy. In the \$30 billion swap arrangement in 1978, whenever foreign currencies were sold to support the dollar, the Federal Reserve immediately expanded its balance sheet by buying government bonds, sterilizing any monetary effects of the intervention. In the British case, intervention by the Bank of England did not include intervention in the forward market, a necessity in time of crisis: given the speculation and expectation at the time that the pound would have to fall, even a large change in Bank Rate<sup>6</sup> has no effect if the forward market is allowed to sink.

Four principles of effective intervention that I would support are the following: (1) intervention must have a clearly formulated and transparent objective; (2) should not be sterilized; (3) should also involve the forward market; and (4) should, whenever is possible, be coordinated with partners abroad.

The first step toward reducing exchange rate volatility would be to change the operating procedures of the G-3 central banks and in particular the view that intervention should be the exception rather than the rule. Central banks have become eclectic or "pragmatic", a sure sign that there is no coherent theory. For example, while the ECB professes to be "monetarist", it uses interest rates rather than the money supply as its principal policy variable.

Each central bank has to increase or decrease at certain times the rate of growth of the reserve base of the money supply. It does so by increasing or decreasing its balance sheet. The main choice is between changing its holdings of foreign or domestic assets. Somehow the three major central banks have got into a corner solution, where its operations are restricted to manipulation of its domestic assets. The prejudice against altering foreign assets is so strong - because it involves "intervention" - that it is at best looked upon as a last resort or an expedient to help a foreign central bank to question their assets. Why does the European System of Central Banks (ESCB) hold half a trillion dollars in gold and foreign exchange assets?

There is no theory to support the "domestic-only" doctrine. The practice and prejudice is rather an unthinking transplantation of closed-economy analysis to the real world open-economy situation. A central bank in a closed economy, such as a world central bank, would have no alternative but to restrict its



operating procedures to domestic assets because there would be no “foreign” assets. For the European central bank, however, its monetary jurisdiction covers at most 20 percent of the world economy, not 100 percent. That represents an argument for a more open mind with respect to the use of foreign assets. When the euro starts to go below what is perceived to be its long-run equilibrium potential, why should the ECB restrict itself to tightening by selling only bonds-domestic assets-instead of foreign exchange? A euro’s worth of sales of foreign exchange has the same effect on the reserve system as a euro’s sale of bonds. But the first one supports the euro rate at some point and the other changes the interest rate.

There needs to be a change in ideas. These G-3 central banks have to get away from the idea that the exchange rate doesn’t matter. Just imagine this. Assume there is a cycle of the demand for money in one of the countries, and now just follow the implications of that disturbance. There would follow a cycle of exchange rates among countries that have price stability. The purely monetary disturbance would therefore create a cycle of real exchange rates. The exchange rate changes would immediately threaten to disrupt price stability and the policy committee of the central bank would have to initiate changes in monetary policy to prevent inflation or deflation from breaking out. As the cycle turns, the entire experience would then be reserved and so on. There is no function for those exchange fluctuations, and they have the collateral consequence of destabilizing financial markets. By contrast, in a fixed system or monetary union, the monetary disequilibrium would be automatically corrected by monetary inflows and outflows.

Consider now the problem of currency preferences in relation to changes in exchange rates. Currency preferences are a function of inflation rates and interest rates. Suppose the inflation in one of the currencies increases by, say, 2 percentage points. The new equilibrium would entail an additional steady depreciation of 2 percent of that currency against its partners’ currencies. But in fact the foreign exchange market will not produce this steady additional depreciation. Equilibrium real money balances in the depreciating currency will now be lower, and a general diversification out of the depreciating currency with the others will take place, leading to wild swings against the depreciation currency that go far outside the range of the new *long-term equilibrium*. Exchange rate volatility is an inherent problem with inflation targeting based on imperfect forecasts.

Does the ECB have a mandate for intervening in the exchange market to establish an exchange rate objective? If a mandate exists, it is a certainly not explicit. In most countries the exchange rate is political decision, represented by the government or Minister of Finance. In the Board of Governors of the

International Monetary Fund, for example, the Ministers of Finance (or Secretaries of the Treasury) are the “Governors” and the heads of central bank, the “Alternate Governors”. In the United States, for example, Larry Summers is the “Governor” and Alan Greenspan is the “Alternate Governor”. The pecking order is clear. The Central Bank, even if it is “independent”, has no official authority to fix the exchange rate.

By analogy, the Council of European Finance Ministers would have authority over the euro exchange rate? <sup>7</sup>

In practice, the ECB is in the best position to use intervention to foster exchange rate objectives that would promote stability of the price level in the euro area. If the ECB has a mandate for price stability, and the exchange rate threatens price stability, intervention could be justified. It is, nevertheless, unlikely that the idea could be carried as actually fixing the exchange rate without endorsement from the Council.

Why has the euro fallen? There are different theories: (1) the efficiency effect that created excess liquidity, discussed above; (2) more rapid growth in the United States than in the euro area, caused by more supply-side-oriented policies and by greater penetration of the “new” economy in the United States; (3) pessimism regarding the euro area’s inability to achieve needed supply-side reforms, including reform of its labour markets, fiscal balance, and deregulation; or (4) the large new supply of euro-denominated bonds that has raced ahead of the ability of the market to absorb. All these factors have probably played a role.

Prior to the introduction of the euro most of the European currencies were overvalued on a purchasing power parity basis, and the fall of the euro has proved to be a needed correction. The fall of the euro has been on the whole beneficial to the euro economy in promoting recovery and expansion and a reduction in unemployment. A concomitant of the fall is the risk of higher inflation rate than would otherwise have been desirable. The rejection of intervention to stop the fall of the euro, however, will have a far more dangerous sequel when, as we should suppose, the euro recovers.

Differential growth rates affect the relative demand for money and hence exchange rates. The U.S. economy is currently in its longest boom on record, a boom that has seen unusually high growth rates, low unemployment, inflation below 3 percent, and a budget surplus that has lowered the Debt/GDP ratio below 35 percent. There are, nevertheless, worrisome signs in the U.S. economy. For two decades now the United States has run massive current account deficits that changed the position of the United States from the world’s largest creditor to the world’s larger debtor. Today’s current account deficit of over 4 percent of GDP and nearly \$400 billion has added significance because it

is now superimposed on a U.S. economy that has a net debtor position of 25 percent of GDP. Once US growth slows, the dollar will lose its luster and financing the deficit will be possible only at a lower value of the dollar. At that time, diversification from the dollar into the euro would cause the euro to shoot up far beyond what would be desirable for euro-area growth and employment.

When that time comes, however, the ECB, by rejecting intervention to strengthen the euro when it is weak, will not be in a good position to persuade the United States to cooperate in weakening the euro when it is strong. The chickens come home to roost!

It is not so difficult to foresee in the future a conflict over exchange rate policy between the United States and Europe arising from different views of what the exchange rate and exchange rate policy should be. Heading off that conflict by new institutional arrangements - not excluding a G-3 monetary union but at least a new Tripartite Agreement - would make a valuable contribution toward a needed reform of the international monetary system.

## Endnotes

1. The gold standard did not, however, give the world as much monetary unity as bimetallism, which provided a high degree of monetary unity regardless of whether countries adhered to gold or silver.
2. Closed-economy economic policies were used in Britain too during the post-war period. Britain's example was important because it was a great monetary leader of the 19<sup>th</sup> century. But after Britain checked out of the deflationary gold standard in 1931, it set up its "exchange equalization fund" that automatically sterilized interventions in the foreign exchange market, using monetary policy to control the domestic price level. That system worked all right when Britain had a floating exchange rate, but it was continued when Britain went back to fixed exchange rates in the later 1930s. The sterilization operation put the monetary policy in conflict with the U. K. balance of payments. Look at the consequences, the authorities would run the economy forward, and then they would get into a balance of payment crisis. At this point, they would have to make a conscious effort to reverse the policy and tighten up, bringing on a recession to lower imports. When the balance of payments then gave them breathing space, they would speed the economy up again only to be followed by another payments problem. Every two years Britain had a recession, because it was following a closed economy principle in an international setting. The world lost sense of how smoothly and correctly fixed exchange mechanisms can be. Britain, the admired monetary leader in the 19<sup>th</sup> century, became a laughing stock in the post-war years.
3. The Federal Reserve was misled by the fact that neither M-0 (reserve money) nor M-1 (currency plus demand deposits) seemed to be rising too fast. That was not the case for M-3 or "money plus quasi-money" in IMF terminology, which averaged two-digit levels

in 1975-81. The real problem, however, was that none of these measures took account of the dollars created by banks overseas, the euro-dollar deposits, the increase in which vastly increased the growth of the U.S. money supply.

4. Japan's inflation preferences, as revealed by the policies of its central bank, may be lower than those of the United States and Europe. As much as a 3 percent inflation differential is not trivial, and if it were steadily sustained it would result *in real interest rate differentials*. If these inflation preferences were keenly held and irrevocable, a monetary union with Japan would not be possible or desirable. In what follows, however, I shall assume that common agreement on an inflation target, defined in terms of a common basket of goods, could be satisfactorily negotiated.
5. There would be an adjustment problem associated with eliminating the substantial interest differential between the U.S. and Japan, which arises because of the expectation that the yen will appreciate against the dollar as much as it has appreciated in the past. A monetary union of course would equalize interest rates and that would mean that Japan's interest rates would rise, and the U.S. interest rates fall, the extent of the adjustment being in inverse proportion to the size of country ( more exactly, capital market). Assuming Japan's economy is half that of the United States, Japanese interest rates would rise by two thirds, and the U.S. interest rates fall by one third, of the interest differential gap.
6. A month after Britain's Black Wednesday, in October 1992, Sweden was in trouble with its position in the exchange rate mechanism, and, in an attempt to stay in the mechanism (or, what is an entirely different thing, show its partners on the Continent that it was serious about trying to remain in the mechanism!) Reacted by raising bank rate to 500 percent! In the absence of intervention in the forward market, this had very little impact and Sweden left the mechanism soon after.
7. The issue has been discussed in our volume by Klaus Günter Deutsch. According to the Treaty of Maastricht, "the Council of Ministers, acting unanimously on a recommendation from the ECB or from the Commission, and after consulting the ECB and then the European Parliament, may conclude formal agreements on an exchange rate system for the euro in relation to other currencies...It is also laid down in the Treaty that the ECB is responsible for day-to-day foreign-exchange operations and intervention. If no formal exchange rate system exists in relations with non-EU currencies, the Council, acting by a qualified majority, may formulate general orientations for exchange rate policy (Art. 111, §2 Treaty of Amsterdam on European Union, respectively Art. 109, §2 Maastricht Treaty). This can be enacted either after receiving a recommendation from the ECB. In December 1997, the European Council at its meeting in Luxembourg passed a resolution that the Council will only consider announcing "general orientations" in exceptional circumstances, for instance in case of massive exchange rate distortions vis-à-vis third currencies. However, it was not resolved who would determine the nature and extent of the misalignment and what would happen in case of divergent views of the ECB, the European Commission, and the majority of governments represented on the Council. Also, as only the full Council can make binding decisions, it remained open whether the fourth non-participating countries will vote on it or not." Deutsch in Mundell and Clesse, pp. 113-114.