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A Role for Gold in the Euro's Future?

by Walker F. Todd*

We seek here to describe and analyze issues arising from protracted weakness of the new European common currency unit, the euro, abbreviated here with the symbol (E). Classical economic principles form the framework of this analysis. The principal issues discussed are:

- Is a single European central bank necessary? What are its powers?
- Does a single monetary policy for the entire Euro Area of the European Union make sense?
- What are the sources of the protracted comparative weakness of the euro since its inception?
- What are the monetary gold reserves of the Euro Area's central banks and finance ministries, and can they be marshaled somehow to strengthen the comparative value of the euro?

The Euro: Background and Treaties

The modern European Union (EU) grew out of early post-World War II initiatives for the reconstruction of Europe.¹ The current phase of the pan-European vision that emerged, especially in France, Germany, and the Benelux countries after the war, is Stage 3 of the Delors Plan, named for former French prime minister and later European Commission (EC) chairman Jacques Delors. The implementation of the three-stage evolution of European monetary union was confirmed by the Maastricht Treaty of 1992 and the Amsterdam Treaty of 1997. Beginning with a base of six signatories of the

founding Treaty of Rome (1957), nine members have been added to the EU, as follows:

1957: Belgium, France, Germany, Italy, Luxembourg, and the Netherlands.

Since mid-1970s: Austria, Denmark, Finland, Greece, Ireland, Portugal, Spain, Sweden, and the United Kingdom. Total: 15 member states.

Stage 3 became effective January 1, 1999, with respect to currencies. A new European Central Bank (ECB) was created, headquartered in Frankfurt, Germany. The Euro Area was defined, with participants (the 11 members of the European System of Central Banks [ESCB], or Eurosystem) agreeing to achieve fiscal and current account deficits not in excess of 3 percent of gross domestic product by the target date. The Exchange Rate Mechanism II (ERM II) was created for Denmark, Greece, and any future members of the EU who did not qualify for membership in the Eurosystem but who wished to coordinate exchange rate policy with the Euro Area. Also, the United Kingdom and Sweden remain members of the EU but are outside both the Eurosystem and ERM II.

The ECB began operations on June 1, 1998, and the new common currency, the euro, became effective as a unit of account within the Eurosystem as of January 1, 1999. The initial value of the euro, which floats against the U.S. dollar, was \$1.1740. "Irrevocably fixed [parities], with six significant digits" were established for each of the 11 Eurosystem members. However, for a variety of reasons analyzed below, the euro has proved weaker than expected against both the dollar and gold, reaching an intraday low of \$.8845 on May 4, 2000, and a closing low of \$.8875 on May 19, 2000. The closing value on August 7, 2000, was \$.9075 and on August 18, 2000, was \$.9063.

Rules of the Euro: Analysis

The first question that should be asked about the euro is why it was necessary in the first place. In classical

* Walker F. Todd, AIER Faculty Associate and former Federal Reserve officer, is an attorney and economic consultant in Chagrin Falls, Ohio.

¹ Good summaries of the post-war evolution of the modern European financial union are in Leland B. Yeager, "From Gold to the ECU: The International Monetary System in Retrospect," in Kevin Dowd and Richard H. Timberlake, Jr., eds., *Money and the Nation State: The Financial Revolution, Government and the World Monetary System*, pp. 77-104, for Independent Institute, New Brunswick, NJ: Transaction Publishers (Rutgers), 1998; and Bennett T. McCallum, *International Monetary Economics*, pp. 227-263, New York, NY: Oxford University Press, 1996.

economic theory, as long as a currency is an efficient store of value (unit of account) and is readily convertible into other assets, including other currencies (thus serving the function of units of exchange), with no or only minimal transaction costs, then the currency regime is presumptively optimal and need not be changed for economic reasons alone.² From the perspective of both political and economic liberty, the citizen is entitled to either sound domestic money or internationally competitive money in order to protect basic property rights. As Ludwig Von Mises observed, “[T]he idea of sound money...was devised as an instrument for the protection of civil liberties against despotic inroads on the part of governments. Ideologically it belongs in the same class with political constitutions and bills of rights.”³

The principal economic and political advantage of competitive currency regimes is that, in the absence of sound money, a citizen may hold a freely convertible currency at market-determined rates of exchange and thus protect his property interests nearly as well as by holding a sound domestic form of money.⁴ Accepting Von Mises’s definition of the problem, then one might say that the euro (a common European currency) will prove useful only so long as it is sound from the perspective of citizens of any country that gave up an already sound currency (e.g., the modern Deutschemark) for the euro. If the euro is inherently unsound, then it must fail this test.

Friedrich Hayek expressed his misgivings on this point (the sustainable quality of a common European currency) as follows:

Though I strongly sympathise with the desire to complete the economic unification of Western Europe by completely freeing the flow of money between them [sic], I have grave doubts about the desirability of doing so by creating a new European currency managed by any sort of supra-national authority. Quite apart from the extreme unlikelihood that the member countries would agree on the policy to be pursued in practice by a common monetary authority (and the practical inevitability of some countries getting a worse currency than they have now), it seems highly unlikely, even in the most favourable circumstances, that it would be administered better than the present national

² This argument may be inferred from, e.g., Ludwig Von Mises, *The Theory of Money and Credit*, pp. 453-456, trans. H.E. Batson, Indianapolis, IN: Liberty Classics (1980).

³ Von Mises, *supra* note 2, p. 454.

⁴ See, e.g., Friedrich A. Hayek, *Denationalisation of Money—The Argument Refined: An Analysis of the Theory and Practice of Concurrent Currencies*, p. 24, 3rd ed., Hobart Paper Special No. 70, London, U.K.: Institute of Economic Analysis, 1990.

currencies. Moreover, in many respects, a single international currency is not better but worse than a national currency if it is not better run. It would leave a country with a financially more sophisticated public not even the chance of escaping from the consequences of the crude prejudices governing the decisions of the others. The advantage of an international authority should be mainly to protect a member state from the harmful measures of others, not to force it to join in their follies.⁵

A frequently encountered defense of adoption of the euro as a common internal currency is the presumptive efficiency of eliminating foreign exchange trading commissions and cross-currency accounting procedures within the Euro Area. However, in wholesale lots, such commissions never were a disincentive sufficient to overcome a classical or Hayekian preference for competitive currency regimes, and at the tourist level, commissions usually averaged about 3 percent for Western European currencies in the last 20 years or so (1.5 percent either side of the market rate for wire transfers). In other words, commissions might be annoying and somewhat inefficient, but compared with the annoyance and inefficiency attendant upon a continent-wide central banking initiative driven by *dirigiste* tendencies, as Kevin Dowd alleges,⁶ the commissions and the costs of calculating exchange rates might be a small price to pay for the legal and economic advantages of a competitive currencies regime.

Rules of the Euro: Monetary Policy Constraints and Operating Procedures

When the ECB commenced operations in 1998, its monetary policy operations were designed to be constrained by both resource limitations and self-imposed operating rules. The ECB reports that its primary objective is price stability. The ECB defines price stability as follows: “A year-on-year increase in the HICP [harmonized index of consumer prices] for the euro area of below 2 percent.”

Because the ECB’s objective is phrased in terms of price level increases, it is presumed that deflation of consumer prices is not to be allowed. Also, although the U.S. Federal Reserve and Federal Open Market Committee do not specify their price level objectives numerically, the ECB has been willing to do so, clearly stating an acceptable range of annualized price level increases between zero and two percent.⁷

⁵ Hayek (1990), *supra* note 4, p. 24.

⁶ Kevin Dowd, “The Misguided Drive Toward European Monetary Union,” in *Money and the Nation State*, pp. 351-376 (1998), *supra* note 1.

⁷ ECB, *Annual Report 1999*, pp. 8, 24.

The ECB states that its price level objectives are supported by two main “pillars,” a prominent role for money (meaning monetary aggregates, typically M-3) and “a broadly based assessment of the outlook for price developments and the risks to price stability in the euro area...using a wide range of economic indicators.”⁸ Based on these pillars, the ECB’s Governing Council selects an interest rate target for each intermeeting period.

The ECB has three instruments for monetary policy operations. The main monetary policy operation of the ECB is in the form of “policy rate tenders of funds” or “tenders.” The rate for those tenders at this writing is 4.25 percent, but speculation has emerged in Euromarkets in recent days that another increase of up to 0.5 percent is forthcoming. The ECB also conducts monetary policy operations through “marginal loans” (collateralized loans analogous to Lombard loans) at a penalty rate with respect to the money market or interbank lending rate. After June 5, 2000, that rate was 5.25 percent, versus 4.29 percent for the prevalent Euro Area interbank overnight rate. The final ECB monetary policy operation is a “deposit facility,” acceptance of deposits of funds, set at 3.25 percent after June 5, 2000.

In theory, the foreign exchange position of the euro is a free float against the U.S. dollar, without direct interventions by the ECB or by the national central banks (NCBs) on its behalf. One of the consequences of the recent weakness of the euro versus the dollar has been an occasional demand in some quarters for such intervention, however.

Rules of the Euro: ECB Capital Structure and Reserve Assets

The NCBs of the Euro Area transferred approximately 80 percent of the maximum amount of E50 billion of reserve assets, E39.5 billion, to the ECB at the start of Stage 3 as of January 1, 1999. The ECB describes these transfers as “foreign reserve assets,” consisting of 85 percent convertible foreign exchange with respect to each contributing NCB, plus 15 percent gold. However, it appears that several Euro Area NCBs count as “gold owned” what actually are “gold claims,” such as gold leased out to others or gold placed with others subject to repurchase agreement.⁹ Moreover, it does not appear that physical transfer of gold from NCBs to the ECB was required; earmarking in the vaults of the NCBs or their own gold custodians apparently was deemed sufficient. Thus, it remains to be seen how much physical gold actually was transferred to the ECB’s reserve

assets at its inception. The stated amounts transferred initially were E33.6 billion of foreign exchange and E5.9 billion of gold, now worth about E6.96 billion, or \$6.31 billion.

The capital structure of the ECB is apportioned among the NCBs, with the largest shares for Germany (24.5 percent), France (16.8 percent), Italy (14.9 percent), and, should it join the Euro Area, the United Kingdom (14.7 percent). No other country has as large as a ten percent share. Non-Euro Area NCBs were required to contribute five percent of their allocated capital subscriptions. The total initial capital contribution was approximately E4 billion.

Performance of the Euro Since its Inception

Although the general consensus is that the euro has been even more successful than originally expected as a vehicle for European political and economic unification and that its prospects as a debt-issuance currency are even greater still, it is undeniable that its overall performance has been weaker than expected. On the positive side, year-over-year inflation has been held roughly within the two percent upper bound in the Euro Area as an aggregate (1.7 percent at year-end 1999, but 2.4 percent in June and July 2000), the fiscal deficits of the Eurosystem countries all were less than the three percent of GDP upper bound in 1999, and the Euro Area as a whole experienced an external deficit of only 0.5 percent of GDP for 1999, a trend that appears to be continuing in 2000.¹⁰ Unemployment also, which had been stubbornly high at the 11-12 percent level throughout the Euro Area roughly since the end of the 1992-1993 European currencies crisis, finally began to fall sharply in the largest euro economies, Germany and France, reaching levels of about 9.5 percent in midyear 2000.

On the negative side, European countries that stayed outside the Euro Area often experienced even better economic performance since the euro’s inception. The euro lost 22.7 percent of its initial value against the U.S. dollar by mid-August 2000, but the pound sterling increased 9.2 percent over the same period, while the Swedish kronor lost only 13.5 percent. The dollar price of gold generally has moved in a trading range of \$270-\$290 per ounce over the period since the euro’s inception, at least since the Washington Agreement on Gold, September 26, 1999, but that fact has not prevented the Swiss franc (a currency supported by strong gold reserves) from declining about 24 percent versus the dollar since January 1, 1999. One might even have expected the Swiss franc to depreciate even further against both the dollar and the euro given interest rate differen-

⁸ ECB, *Annual Report 1998*, p. 8.

⁹ See, e.g., World Gold Council, *Gold in the Official Sector*, No. 12 (July 2000), esp. p. 6.

¹⁰ ECB, *Annual Report 1999*, pp. 23-26, 30, 36.

tials (see table).

Unemployment in the United Kingdom fell from 10.4 percent in 1993 to 4.2 percent by the third quarter of 1999, but British unemployment already was only about 4.5 percent by the beginning of 1999. Nevertheless, the advantage of being able to operate a floating rate currency regime instead of a rate pegged to the Deutsche-mark or to the euro's central rate throughout the period of convergence and transition to the euro clearly assisted the United Kingdom in making the structural reforms that enabled it to remain internationally competitive and to reduce unemployment in a period of relative currency strength.

The standard reasons given for the euro's protracted weakness versus the dollar, sterling, and gold since its inception still seem plausible on all the evidence. These focus primarily on institutional rigidities. For example, the IMF's *Annual Report 1999* repeatedly emphasized the problem of structural rigidities in the Euro Area, stressing the need for improvements regarding tax cuts, the training of unskilled workers without recent job experience, "pervasive rigidities in labor and product markets," the heavy taxation of labor, welfare and unemployment payments reform, agricultural trade liberalization, and information flows between national banking supervisors and the ESCB.¹¹

Other important, market-determined sources of the euro's protracted weakness include purely monetary and, thus, potentially self-correcting factors, such as slower real GDP growth than in the United States since 1998, which ordinarily induces investment capital flows to the higher-growth region until some type of competitive balance is established, at which point the investment flows either stabilize or reverse.¹² The lower market interest rates that prevailed in Europe than in the United States and United Kingdom, especially since the Federal Reserve began to raise interest rates in the summer of 1999, also acted as an inducement for capital to flow to the United States and United Kingdom instead of Continental Europe, all other things being equal.

The extent of the weakness in the euro in this period is surprising, however, in light of the current account surplus for the Euro Area in 1999, a trend roughly continuing in 2000 albeit combined with exceptionally large net capital outflows. Meanwhile, in light of the enor-

mous current account deficit of the United States, already well past four percent of GDP and approaching five percent of GDP,¹³ one might have expected the beginning of a corrective decline of the dollar and appreciation of the euro. One probable reason for the delay of the correction is that the interest rate differential still strongly favors the dollar over the euro.

Role of Monetary Gold Reserves in the Euro Area

Do the European central banks hold large gold reserves, and can those reserves help defend the euro? In a roundabout way, the answer is yes to both questions. European central banks, especially in the Euro Area, hold absolutely greater and proportionately vastly greater gold reserves than does the United States or the United Kingdom (see table).

Originally, gold reserves supported currency issues, but as the role of deposit banking has increased in post-war Europe, with a shift in banking system liabilities from circulating banknotes to checkable and other demand deposits, the role of gold as a reserve for currency alone has lost some of its importance. Historical experience before World War II in the United States tended to demonstrate that a gold reserve ranging from 25 to 50 percent of circulating notes was necessary to support a convertible currency system. In the United States, the long-term consensus seems to have been that central bank gold reserves of at least 35 percent of all demand liabilities (deposits plus circulating notes) and 40 percent of circulating notes alone were prudent.

Euro Area central banks cumulatively hold reserve assets equal to approximately one-third of banknotes in circulation as "gold and gold receivables," a range of 30.3 to 33.7 percent, depending on the source of the official estimates (see table). In contrast, the United States and the United Kingdom, with their gold reserves valued at \$280 per troy ounce of fine gold, could cover only about 14 percent of their banknotes in circulation. Also, the United Kingdom is in the process of disposing of a large part of its remaining gold reserve in bi-monthly auctions of 25 tons each (800,000 ounces, or \$224 million), with 100 tons already sold thus far this year. At the end of the current U.K. gold auctions program, a reasonable estimate would be that remaining gold would cover no more than a range of five to seven percent of outstanding banknotes.

Because they already hold strong percentages of gold reserves against circulating currency, the ESCB fairly easily could maintain a one-third or 35 percent convert-

¹¹ IMF, *Annual Report 1999*, p. 59.

¹² BIS, *70th Annual Report* (2000), p. 11, reports that real GDP growth in the United States was 4.1 percent in 1999, versus 2.2 percent for the Euro Area. Also, the BIS notes, within the Euro Area, the average number masks great divergence in rates of GDP growth, with greater than expected growth in Ireland, Spain, and the Netherlands somewhat offsetting slower than expected growth in Germany and Italy.

¹³ See, e.g., BIS, *70th Annual Report* (2000), p. 32. Statistics released August 18, 2000, indicated that the U.S. trade deficit for the month of June 2000 was \$30.62 billion, a one-month record, driven in part by rising imported oil costs.

Gold and the Euro (E)

(Amounts in millions; values as of May 2000 unless otherwise indicated.

Assumed market price of gold 8/7/00 is \$280/oz. Assumed euro conversion rate 8/7/00 is E1 = \$0.9075.)

Country	Euro parity	Millions ounces held	Dollar value of gold held	Dollar value of loc. curr.	Pct. Of gold cover	May-00 interbank int. rate
Euro Area (11 countries)						
Belgium	40.3399	8.3	2259	11771	19.2	3.96 treas.
Germany	1.95583	111.52	29963	126993	23.6	3.92
Spain	166.386	16.83	4566	51513	8.9	3.92
France	6.55957	97.25	26471	42952	61.6	4.16
Ireland	0.787564	0.18	52	3754	1.4	4.24
Italy	1936.27	78.83	21461	61984	34.6	4.36
Luxembg.	40.3399	0.08	21	596	3.5	3.92 euro
Netherlds.	2.20371	29.32	7877	16848	46.8	3.92 euro
Austria	13.7603	13.1	3553	12083	29.4	3.92 euro
Portugal	200.482	19.51	5290	5190	101.9	3.55 3-00
Finland	5.95473	1.58	424	2791	15.2	3.93 4-00
Total euro	1	376.5	101937	336475	30.3	3.92 euro

Memorandum: Same statistics from IMF, *International Financial Statistics*, Aug. 2000:

Euro Area	1	400.5	108478	336413	32.2	3.92
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Memorandum: ECB, Annual Report 1999, as of **1-1-00**:

Euro Area	1	n.a.	117660	378351	31.1	3.04
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Memorandum: ECB, Monthly Bulletin, August 2000, as of **7-28-00**:

Euro Area	1	n.a.	109727	325369	33.7	4.41
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Gold-holding international central banks (World Gold Coun., BIS, and IMF data):

ECB = European Central Bank.

ECB 5-00	1	23.9	6693	n.a.	n.a.	4.35
BIS 3-00a	n.a.	6.5	1819	n.a.	n.a.	?
IMF 4-99b	E1.27511	103.44	29592	29085	101.7	5.04

Note: Original value of SDR 1/1/99 was E1.22081. Value 6/00 = E1.39941.

Exchange Rate Mechanism II (ERM II) members targeting euro central rate:

Denmark	7.46038	2	586	4407	13.3	4.32	8.2267
Greece	340.75	4.25	1192	6401	18.6	8.3 disc.	372.04

Other European Union plus Switzerland: (Currency per euro 8/18/00):

U.K.	0.6085	19.73	5524	39134	14.1	5.81	1.4909
Sweden	8.41	5.96	1669	8311	20	3.85	9.2754
Norway	8.0657	1.18	330	4332	7.6	7.78 disc.	8.8937
Switzerld.	1.5596	82.49	23266	20106	115.7	2.7	1.7293

Memorandum: U.S. and Global, from IMF, International Financial Statistics, August 2000;
BIS; World Gold Council. Dollars per euro 8/18/00.

USA	0.9063	261.67	73268	514000	14.3	6.27
Global	n.a.	1069.89	294300	n.a.	n.a.	n.a.

Note: Original dollar value of euro 1/1/99 was \$1.1740.

Special Drawing Rights (SDRs) and gold at selected dates (dollars per SDR); gold price (NY) in dollars per fine troy ounce.

	1/1/99	1/1/00	8/7/00	8/18/00
SDR	1.408	1.3725	1.3099	1.3103
Gold	288.1	288.3	274.31	276.72

Note: Original "official" price of gold 1/1/99 at ECB was E246.368/oz.

Euro market rate against dollar then was E1 = \$1.1740.

ECB dollar price for gold then was \$289.24/oz.

Notes:

a The BIS uses gold francs for its financial statements, fixed in 1979 at a gold value equivalent to US\$208/oz. One gold franc = \$1.94149 as of 1979. If revalued at \$280/oz., GF1 = \$2.61354.

b The IMF officially values its gold reserve at SDR35/oz., equivalent to US\$ official price of gold when SDR was created in 1968. At the time, SDR1 = US\$1. Date of last IMF annual report covered 4/99, when SDR1 = US\$1.35123, the value shown here. IMF currency outstanding and gold cover ratio are for SDRs, the only form of IMF-issued currency. Formally, SDRs are **not** obligations of the IMF's general department and are **not** backed by the IMF's gold reserves. Also, no deduction is made here for SDR2.470 billion (\$3.235 billion) held by the IMF itself, which should be counted as outstanding currency if held by the general department instead of the SDR department, typically as payment received on outstanding IMF loans to members.

ibility reserve for currency if its member nations wished to do so, which historically probably would have been sufficient if the currency were well-managed. If one were of the view that a stronger convertibility reserve, such as 40 or 50 percent, were required, several ESCB member countries (Portugal, France, and the Netherlands) already hold gold that would cover at least a 40 percent reserve against circulating currency. Italy (34.6 percent) is close enough that it could acquire that level of reserve fairly easily. At the other extreme, however, Ireland, Luxembourg, Spain, and Finland have quantities of gold that would provide reserves ranging from 1.4 to 15.2 percent of circulating currency and might have difficulty meeting a 40 percent reserve target in a medium term of two to five years. The common currency as a unit of exchange is supposed to begin circulating in January 2002.

On the positive side, it almost surely would give some strength to the euro if, say, it were announced that the common currency would become freely convertible into gold by or soon after 2002. Although the likelihood of such a move may seem remote, it would be feasible given the gold reserves already available. A phased-in reserve requirement, such as 25 percent by September 2001, 30 percent by January 2002, 35 percent by January 2003, and 40 percent by January 2004, could be reasonably attainable by all Euro Area member countries, given the current monetary policy of the ECB, even for the four countries mentioned above.

For those four gold-deficit countries, only Spain has so large an economy or so much currency in circulation (E57 billion, about \$51.5 billion) that extensive EC assistance would be required to enable it to reach the targets (currently, Spain has gold that would provide a reserve of only 8.9 percent against banknotes). The total currency in circulation of the other three countries is only E7.9 billion (\$7.2 billion), and they all have sufficient foreign exchange reserves to be able to purchase enough gold to hit the suggested initial targets without inducing domestic economic stringency.

Intriguingly, it is a fair inference that, confronting the combination of the following factors, even a completely gold-backed currency still is not immune from depreciation: Higher U.S. than European interest rates, strong growth in U.S. GDP and equities markets, and a steady or falling dollar price for gold (which generally has been the case since shortly after announcement of the Washington Agreement on Gold in September 1999). In other words, one might safely ask, why bother with a 100 percent gold reserve for currency if it does not prevent currency depreciation against major trading partners anyway? The Swiss, apparently reasoning along these lines, announced their intentions to sell about one-half of their existing gold reserves (2,558 tons, or 82.5

million ounces) over time, which still would leave them holding a reserve of between 55 and 60 percent of circulating currency, well ahead of the targets suggested above.

In light of the somewhat counterintuitive experiences of Switzerland and Portugal (which also has gold reserves at least equal to 100 percent of circulating currency), it might make more sense to focus attention in the Euro Area on establishing a prudent gold reserve in the near term (by 2002) analogous to the traditional standard for the U.S. Federal Reserve Banks before 1933: 35 percent on demand deposits and similar liabilities other than banknotes, 40 percent on banknotes, and 5 percent on banknotes to be deposited at the ECB or BIS and credited toward satisfaction of the 40 percent banknotes reserve requirement.

In the aggregate of the Euro Area, as noted above, such a reserve level already could be attained with minimal effort. Cross-claims on gold within the Euro Area, however, would have to be deducted for consistency of reporting reserve levels.

Over time, say, within five years after 2002, a comprehensively safe and panic-proof banking system could be constructed around a uniform 50 percent gold reserve requirement, 50 percent on deposits and 50 percent on banknotes, with a 10 percent deposit on banknotes at the ECB or BIS to be credited toward the 50 percent banknotes reserve requirement. The only foreseeable negative consequences of such a policy are the transaction costs and opportunity costs of holding so much gold instead of other, supposedly more productive assets, and the distinct possibility that the dollar value (or even the euro value) of gold might decline over the next decade. But in favor of this strong gold reserve policy, most members of the Euro Area already have paid the transaction costs and, probably, most of the opportunity costs of holding so much gold. Only a comparatively small additional cost, an EC loan to Spain of about E10 billion, would be necessary to achieve the first interim target specified above, a 25 percent gold reserve on banknotes by September 1, 2001.

If the path selected were the strong gold reserve path, with the reserve targets phased in on the same schedule but applicable to both demand deposits and similar liabilities as well as banknotes, the interim target would become only slightly more difficult. Aggregate gold reserves of the Eurosystem already were 20.98 percent of the combined liabilities that would have to be covered as of year-end 1999.¹⁴ The transition also should be undertaken gradually, to let the Euro Area economy

¹⁴ See ECB, *Annual Report 1999*, pp. 160-161. The calculation is as follows, from the consolidated balance sheet of the Eurosystem at December 31, 1999, amounts in millions of euros: Gold and gold

"grow into the money stock," if lessons of prior British and U.S. resumptions of the gold standard following suspensions were heeded.¹⁵

Both Denmark and Greece hold vastly more foreign exchange reserves than circulating currency and easily could purchase enough gold to meet the initial 25 percent target suggested above. Also, on June 19, 2000, Greece was approved to join the Euro Area as of January 1, 2001.

The United Kingdom holds foreign exchange reserves sufficient to cover about three-quarters of circulating currency and would face some unpleasant deflationary policy choices if it attempted to purchase enough gold in the next year or so to satisfy the initial target suggested above. If the United Kingdom attempted to join Spain in borrowing its gold deficiency from the EC, the United Kingdom would require a loan of E4.73 billion (\$4.30 billion) to cover a 25 percent initial reserve target for banknotes and a loan of E11.1 billion (\$10.1 billion) to cover a 40 percent target. Instead, if the Euro Area adopted a gold convertibility standard, then the United Kingdom might be best advised to continue to pursue more or less its current policy of a free float against both the dollar and the euro. It probably would require the better part of a decade for the United Kingdom to accumulate a sufficient foreign exchange surplus over circulating currency to enable it to purchase enough gold to meet the suggested targets without engendering unnecessary domestic economic distress. However, to avoid widening the already wide gap between British and Euro Area gold

receivables / [Banknotes in circulation + Liabilities to euro area financial sector counterparties denominated in euro + Debt certificates issued + Liabilities to other euro area residents denominated in euro + Liabilities to non-euro area residents denominated in euro + Liabilities to euro area residents denominated in foreign currency + Liabilities to non-euro area residents denominated in foreign currency]. SDR liabilities are, essentially, fiat currency liabilities and need not be backed by gold. "Other liabilities" presumably may be resolved in euros within the Euro Area and need not be backed by gold. Revaluation accounts are internal bookkeeping entries and need no gold reserve. Capital and reserves are reconciliation entries for which the contributors are entirely at risk and need no gold reserve. Gold and gold receivables were valued at E116,610 million; the total of liabilities included within the formula above was E555,777 million. The aggregate gold cover ratio for these liabilities of the ESCB is 20.98 percent.

¹⁵ See the important study of the political and economic processes of resumption of the gold standard in John H. Wood, "Monetary Policy in Democracies: Four Resumptions and the Great Depression," *Economic Education Bulletin*, vol. 40, no. 3 (March 2000), pp. 36, 39, American Institute for Economic Research. Wood attributes to Senator John Sherman (R-OH) the insight that the least painful and most successful resumptions should be undertaken "naturally and gradually, without restriction, by letting the country grow into the stock of currency" that would be backed by the resumed gold standard.

reserves for the major economies, it would be prudent for the British government to discontinue its current program of gold auctions.

Sweden already holds enough gold reserves to cover 20 percent of circulating currency and also holds enough foreign exchange reserves surplus over circulating currency to enable it to purchase the additional gold that would satisfy the initial targets without domestic economic disruption. Switzerland would continue to satisfy the initial suggested targets even after completing the sale of one-half of its gold reserves. Indeed, there is unlikely to be convergence between Swiss and Euro Area economic performance until, as is suggested above, the Swiss hold less gold and the Eurosystem holds more gold.

Other countries that link their fates, somehow, to the Eurosystem probably should adopt either freely floating currency regimes or currency board arrangements firmly fixed to the euro. There is an emerging consensus among a broad spectrum of economists that either extreme policy choice more or less works satisfactorily in the long run, while pegged rates and trading bands, subject to policy makers' discretionary adjustments, regularly deliver the most unsatisfactory of all policy outcomes

Prospects for a Gold-Backed Euro

Eurosystem finance ministers may eventually be pressured to opt for more explicit gold backing of the euro to halt its weakening further against the dollar. Given the ESCB's relatively strong gold reserves, at some point adoption of a gold standard might be viewed as preferable to further increases in ECB interest rates. (At this writing, another potential 0.5 percent increase, to 4.75 percent for policy tenders, is being discussed in financial markets, principally to offset euro weakness against the dollar.)

Historically, a central bank gold reserve of 35 to 40 percent of demand liabilities and circulating currency, which is well within the Eurosystem's grasp, was adequate to sustain a gold standard currency system. However, given the increased importance of bank deposits as money in postwar Europe, a safe central banking system probably would need close to a one-half reserve against both currency and demand deposits (or whatever liabilities functionally were equivalent to demand deposits).

If another long upward run of the U.S. equities markets resumes within the next two years, however, then gold will continue to sit in the doldrums. In such an environment, the euro still might continue to weaken, even with an explicit gold backing.

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