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Deja Vu All Over Again: Lessons from the Gold Standard for European Monetary Unification

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Berkeley

January 1994

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Historians cannot help but regard the debate over European monetary unification with a sense of *deja vu*. The goal is firmly fixed exchange rates between national currencies, the creation of a European Central Bank to assume responsibility for the monetary policies of the participating countries, and a single currency for the member states of the European Community.' This brave new world resembles nothing so much as the 19th century gold standard. Under the gold standard the currencies of the leading industrial countries were pegged to one another at stable rates of exchange. Barriers to international flows of financial capital were essentially absent. The monetary autonomy enjoyed by national governments was therefore severely limited. The same will be true over much of Europe assuming the successful completion of EMU.

Indeed, the parallels between the two systems extend beyond these technical arrangements. Like today's European Monetary System, the 19th century gold standard revolved around the leading European financial power of its time, Great Britain, and its central bank, the Bank of England (for present purposes, the German Bundesbank of its day). Like the prospective European monetary union, the 19th century gold standard achieved a high degree of financial and monetary integration without a matching degree of political centralization.

At the same time, there are limits to the analogy between the gold standard and EMU. Whereas the gold standard always featured distinct national central banks and currencies, Europe's monetary union will be characterized by a single central bank and, ultimately, a single currency. Whereas EMU, established by an international treaty, will represent a virtually irrevocable commitment, the gold standard was a contingent rule

that governments could abandon in response to exceptional circumstances. Whereas the gold standard was characterized by extensive labor flows between participating countries, migration on a comparable scale is not contemplated -- indeed, it would not be tolerated -- under EMU. And whereas present-day policymakers foresee a need for statutory restraints on the fiscal policies of participating countries, no such restrictions were imposed in conjunction with the spread of the gold standard.

Even if the analogy is valid, it is not clear whether parallels are better drawn with the smoothly-functioning gold standard of the 19th century or the fragile, unstable gold standard of the 1920s.² In the second half of the 'twenties, weak currency countries, the United Kingdom prominent among them, complained that structural imbalances afflicting the gold standard world were aggravating their competitive difficulties. They suffered persistent balance-of-payments problems and chronic budgetary strains. Gold standard constraints on adjusting their overvalued exchange rates forced them to restrict the provision of domestic credit, and the stability of their banking systems was undermined as a result. Ultimately, their positions proved untenable, and balance-of-payments crises ensued. There are obvious parallels with the economic and financial difficulties of Italy, Spain, the U.K. and Sweden in the summer of 1992 and of France and Denmark in the summer of 1993 and with the foreign-exchange-market crises that followed. If the interwar gold standard, and not its 19th century predecessor, is the relevant precedent for EMU, then the lessons of history are less heartening.

This paper reconsiders the gold standard through EMU-tinted lenses. It asks whether the conditions that rendered viable the fixed exchange

rates of the gold standard are present in Europe today. It starts by considering six aspects of gold standard experience in light of EMU: the symmetry and magnitude of disturbances, labor market flexibility, cohesion, capital mobility, fiscal rules, and central bank independence. It then turns to the contrast with the much less satisfactory interwar gold standard and possible implications for EMU.

1. Incidence of Disturbances

Following Mundell's (1961) seminal contribution to the theory of optimum currency areas, economists have regarded fixed exchange rates as easy to defend and desirable to maintain when disturbances are small and symmetrically distributed across countries and when labor is allowed to flow freely between them. When shocks are small, there is little need for the active use of monetary and fiscal policies, and the constraints on policy imposed by a commitment to fixed rates are of little consequence. When shocks are large but impinge symmetrically on countries, a common policy response may suffice; hence, the constraints of fixed exchange rates or monetary union will not bind. Similarly, when shocks are asymmetrically distributed but labor flows freely from depressed to booming countries, unemployment differentials will be minimized and the constraints on policy associated with fixed exchange rates will be easy to bear.

How does the magnitude of disturbances in the gold standard years compare with recent decades? In Eichengreen (1992a) I computed the standard deviation of detrended real national income for nine high-income countries. That standard deviation was 50 per cent larger under the classical gold standard than in the post-WWII years.³ The result continues

to hold when the comparison with the post-WWII era is limited to the 1970s and 1980s. Bayoumi and Eichengreen (1992a), using different data, compute the standard deviation of detrended national income for EC member states since 1960, arriving at the same conclusion. Thus, if the magnitude of output movements is used as a criterion for the viability of fixed exchange rates and monetary union, and gold standard experience is taken as a lower-bound estimate of what is viable, then conditions in Europe today are consistent with the maintenance of such arrangements.

Output movements are not the same as disturbances, of course, since the former incorporate both shocks and responses to them. Bayoumi and I therefore follow Blanchard and Quah (1989) in using time-series methods to distinguish disturbances from responses and temporary from permanent shocks (and interpret the latter as aggregate-supply and aggregate-demand disturbances, respectively). We find that the large output fluctuations of the gold standard years were attributable to large disturbances, not to slow responses. Aggregate supply shocks were two-and-a-half times as large under the classical gold standard as in the post-WWII years. Aggregate demand disturbances were twice as large. This last finding is surprising: whereas the gold standard is commonly credited with having disciplined erratic policymakers, our results suggest that relatively large demand disturbances emanating from other sources dominated these effects.

Not only were output fluctuations larger under the gold standard than after World War II, but they were less correlated across countries (Eichengreen, 1992a).⁴ This is plausible insofar as some countries like the U.S., Canada and Australia specialized in the production and export of agricultural goods and other primary products, while others such as the

U.K. exported manufactures in return for foodstuffs and raw materials. It follows that aggregate supply and demand disturbances (which were presumably associated with income fluctuations that shifted demand between foodstuffs and other goods) were also less correlated across countries under the gold standard than after World War II. Eichengreen and Bayoumi (1992a) show that the variation of output-weighted standard deviations of both aggregate supply and aggregate demand disturbances around the sample mean was about twice as large in the classical gold standard years as after World War II (when the sectoral specialization of high-income countries appears to have diminished compared to the late 19th century). This suggests that a significant portion of the disturbances experienced during the classical gold standard years was country specific. But the fact that these disturbances were readily accommodated in the presence of fixed exchange rates requiring the pursuit of similar monetary policies suggests that the same could in principle be true in Europe in the 1990s.

The validity of this inference hinges, of course, on whether the adjustment mechanisms that operated so powerfully under the gold standard would be effective in Europe today. It is to this question that I now turn.

2. Labor Market Flexibility

One of the findings of Bayoumi and Eichengreen (1992a) is exceptionally fast adjustment to aggregate-supply and aggregate-demand shocks during the classical gold standard years. Although shocks were noticeably larger before 1913 than after 1945, output fluctuations were only slightly greater owing to rapid adjustment. An obvious explanation

for the contrast is different degrees of labor market flexibility.

Assume a country-specific shock giving rise to unemployment. If the government is precluded from devaluing the currency in order to enhance the competitiveness of exports, how can the economy respond? An obvious possibility is a decline in domestic-currency wages and costs to price exports back into international markets and workers back into employment. Not just economists but historians as well generally assume that real wages were more flexible in the 19th century than in the 20th, and especially than in Europe today. Evidence on this question is far from conclusive, however. Hatton's (1988) comparisons of wage flexibility for pre-WWI and interwar Britain do not indicate a secular decline in labor market flexibility. Nor does Thomas's (1992) study of labor market flows. A variety of studies (e.g. Bruno and Sachs, 1985) have found more evidence of real wage rigidity for the post-World War II period, but it is not clear where to place the structural break. For the U.S., Gordon's (1982) time-series analysis reveals a decline after WWI in the responsiveness of prices to output fluctuations, confirming the findings of earlier investigators like Cagan (1956) and Sachs (1980). Work like that of Jacoby (1985) on the rise of trade unions, personnel departments and internal labor markets provides an historical rationalization for these shifts.⁵ Even here, however, recent research by Carter and Sutch (1990) and Allen (1992) casts doubt on the notion that there occurred a significant decline in the extent of wage flexibility. Perhaps the judicious conclusion is that while there exists firm evidence of a decline in the economy's speed of adjustment to shocks, the jury remains out on whether growing labor market rigidities lie at its root.

The other channel for labor-market adjustment under the gold standard was international migration. Panic (1992) and Goodhart (1992) emphasize the role of trans-Atlantic migration in venting country-specific shocks. When conditions worsened in Europe, workers migrated to North America, South America, Australia and New Zealand, reducing domestic labor supply and unemployment. Remittances boosted spending and strengthened balances of payments in the migrants' countries of origin, helping to stabilize macroeconomic conditions there.

Fenoaltea (1988) shows for Italy that the volume of immigration was responsive to disturbances to the balance of payments. When British lending to Italy fell off, Italy's balance of payments weakened and local labor market conditions deteriorated. Italians migrated across the Atlantic, moderating the unemployment problem and through their remittances strengthening the balance of payments.

Fenoaltea estimates that net emigration as a per cent of Italy's population averaged 0.13 per cent annually in 1872-81, 0.37 per cent in 1882-1891, and 0.38 per cent in 1892-1901. To get net emigration of labor-force participants as a per cent of the labor force, these numbers have to be adjusted upward, since labor-force participants migrated in disproportionate numbers. It seems reasonable to double the percentages just reported to place them on a labor force basis. Moreover, net emigration did not proceed evenly over these decades; return migration was large and volatile, meaning that net emigration might turn negative in prosperous years. If we double these figures again to get net emigration as a share of the labor force in depressed years, the mechanism could have reduced the labor force in a slump by more than one per cent per annum,

denting unemployment significantly. While data for other countries account even less adequately for return migration, those for Sweden, Britain and Ireland in the 1880s and Spain in the 1890s suggest migratory flows as substantial as those for Italy (Green and Urquhart, 1976).

Revealingly, the literature on 19th century migration is couched in terms of "long swings" or "Kuznets cycles." Workers hesitated to migrate in response to short-lived increases in unemployment; a persistent deterioration in local economic conditions was required before the present discounted value of the gains from migration offset the front-end costs. Hence, migration was probably less important as a response to fluctuations at standard business cycle frequencies than as a response to long swings. Even at business cycle frequencies, however, there is evidence that migration responded to wage and unemployment differentials between sending and receiving countries.⁶

By the standards of the gold standard era, there is less scope today for migration between the European nations contemplating the formation of a monetary union. The destinations of the 19th century immigrants were characterized by abundant land and scarce labor. Their governments welcomed new arrivals. Destination countries today are less welcoming of Europe's unemployed. They are likely to respond to increased immigration by erecting barriers to the integration of foreign workers into local labor markets.

It might be objected that market forces in the Europe of the future will be impossible to contain -- that governmental efforts to stem adjustment through migration are bound to fail, and that this adjustment mechanism will operate despite the authorities efforts to suppress it.

Workers will have powerful incentives to move from high- to low-unemployment regions; employers will have equally strong incentives to hire them. The European Community's Single Market Program entails the removal of barriers to labor flows. Measures to insure the portability of pensions will stimulate intra-Community labor mobility. Such observations notwithstanding, it remains unlikely that mobility between EC countries will approach the levels that characterize continental monetary unions like the United States today or the Atlantic Economy of the 19th century.⁷ Trade unions, apprenticeship programs and credential requirements will continue to continue to place subtle barriers in the way of labor mobility, notwithstanding the efforts of the European Community to overcome them with policies of mutual recognition. Cultural and linguistic barriers to migration will remain. It is unlikely that Europe's monetary union will be able to match the classical gold standard in the latter's reliance on labor mobility as a means of adjusting to asymmetric shocks.

3. Cohesion

The campaign for monetary union has been bound up with the problem of "cohesion," EC jargon for eliminating national income disparities. Monetary union, not to mention other aspects of the Single Market Program, is viewed as viable only if incomes and productivity in the poorer member states of the Community are brought closer to Community average. One indication of the prevalence of this view is that the low-income countries of Southern Europe obtained a significant increase in the Community's Structural Funds (programs for transfers of investable funds from high- to low-income members) as a condition for agreeing to the Maastricht Treaty.

The economic as opposed to the political logic for this preoccupation is far from clear. Areas sharing a common currency like the states of the USA, the provinces of Canada or the north and south of Italy, are commonly characterized by significant interregional income disparities. Notwithstanding the tendency, documented by Barro and Sala-i-Martin (1991), for poorer U.S. states to close the gap vis-a-vis their richer counterparts, substantial regional differentials remain. In 1988, for example, U.S. GDP per capita, in dollars, averaged \$16,900, but its standard deviation across states was \$3,700. Per capita GDP averaged \$10,800 in the EC, with a standard deviation of \$4,100 across member nations (Eichengreen, 1990). Per capita incomes varied only slightly more across the members of the European Community, in other words, than across the states of the USA, in other words.

In the U.S. and Canada, these disparities have called forth institutions of fiscal federalism to, among other things, transfer resources from richer to poorer regions. Bayoumi and Masson (1991) find that the Canadian tax and transfer system offsets 35 cents of each dollar by which incomes of Canadian regions differ from one another. An analogous effect of about half the same magnitude operates in the United States. An obvious explanation for these arrangements is that they attenuate the need for exchange rate changes and interregional migration within the monetary union. Fiscal transfers that moderate regional income gaps reduce the incentive to migrate. If the income gap between regions of origin and destination must surpass some critical threshold before migration takes place, then ongoing transfers reduce the likelihood that an asymmetric shock of given size will push the differential beyond that point. If the

large-scale migration that would otherwise substitute for exchange rate adjustments is perceived as a source of social and political problems, then the sort of measures to promote "cohesion" pursued in Canada and the U.S. might be a necessary corollary of a common currency. This is one explanation for the extensive fiscal transfers to eastern Germany that accompanied that country's economic and monetary union.

So long as the EC budget remains little more than one per cent of Community GNP, intra-European transfers will necessarily play only a modest role, despite the fact that a quarter of that budget is devoted to the Structural Funds. This, in turn, will give rise to tensions within the monetary union.

Yet per capita income differentials across European countries were as large in the classical gold standard years as they are today, and they were not offset by systems of fiscal federalism. The coefficient of variation of the average per capita incomes of the main gold standard countries was 28 per cent in 1880 and 1913, compared to 28 per cent for EC member states in 1980 and 30 per cent in 1988.⁸ No international transfers comparable to those which take place between the provinces of Canada and the states of the USA were undertaken by the members of the gold standard club. For the latter, lack of "cohesion" did not prove debilitating.

The explanation for the contrast lies, of course, in the immigration described in the previous section. Immigration was welcomed by labor-scarce, land-abundant countries, emigration by the more densely settled countries of origin. It was not necessary to construct a system of interregional fiscal transfers to attenuate the incentive to migrate that arose in the absence of exchange-rate changes. Unless larger migratory

flows or national unemployment differentials prove acceptable to the member states of the EC, which hardly seems likely, more will have to be done to address the cohesion problem.

4. Capital Mobility

Along with labor mobility, capital mobility is the obvious explanation for rapid adjustment under the gold standard. National capital markets were highly integrated, and governments rarely attempted to restrict the flow of financial capital. In consequence, international capital movements were sizeable. Bayoumi (1990) shows that savings-investment correlations were weaker under the gold standard than in the post-World War II period in general and in postwar Europe in particular, reflecting the extent of international capital mobility under the gold standard and governments' policies of benign neglect.⁹

Capital flowed freely to finance temporary shocks to the balance of payments. Since governments' commitments to their gold standard parities were credible, at the system's European center if not elsewhere, when the balance of payments deteriorated and the exchange rate weakened, capital flowed in to finance the payments deficit in anticipation of the capital gains that would follow once the government took corrective action and the exchange rate recovered.¹⁰ Since short-term capital flowed in stabilizing directions, the need for corrective action was minimized. As in models of exchange-rate target zones (e.g. Krugman, 1991), the credibility of governments' commitments to their gold standard parities cushioned them from balance-of-payments shocks.

The same was not true of internal disturbances. When the world prices

of a country's export staple weakened or domestic economic conditions otherwise deteriorated, there was little tendency for foreign capital to finance the spending shortfall. Capital did not flow in to take advantage of unemployed factors of production; although resources were idle, they were not cheap barring downward adjustments in wages and other production costs sufficient to offset the negative shock that had given rise to the unemployment in the first place. Fenoaltea (1988) shows for Italy, for example, that there was only a weak tendency for induced capital inflows to counteract shocks to domestic production."

Although international capital movements were impressively large under the gold standard, they are still larger today, if one includes in one's measure short- as well as long-term flows. In the late 19th century the cost of transferring funds from London to Paris amounted to perhaps one half of a per cent of the value of the transaction. Present-day currency traders can complete an analogous transaction for a fraction of the cost. Even more than under the gold standard, present-day capital flows can easily finance balance-of-payments deficits, so long as those deficits are regarded as temporary and sustainable, and risk premia are of secondary importance.

Once Europe's monetary union comes into operation, Belgium will no more be able to run an unsustainable balance-of-payments deficit vis-a-vis other European countries than can New York State do so vis-a-vis the rest of the U.S. But capital mobility will not relieve Belgium of the need to adjust to an internal disturbance, any more than it exempts New York State of that obligation. Capital will not flow in if Belgian production costs rise, for example, any more than it flows into New York when the state's

competitiveness declines relative to the rest of the U.S.¹² Admittedly, risk premia will be smaller and capital will be even more mobile than it was during the 19th century, since it will be harder for participating countries to withdraw from Europe's monetary union (their participation being governed by a multilateral agreement and codified by an international treaty) than it was for them to unilaterally abandon gold convertibility. But this will still do little to facilitate adjustment to domestic shocks.

5. Fiscal Rules

A prominent feature of the Maastricht Treaty are provisions designed to limit the autonomy of fiscal policymakers. The treaty's framers worried that monetary and financial integration together with budgetary autonomy will bias policy in expansionary directions. When national financial markets are segmented and capital is immobile internationally, no such bias exists, since the consequences for interest rates and future taxes of a country's deficit spending fall entirely on itself. Increased public spending drives up interest rates and requires additional distortionary taxes to finance the resulting debt service costs only in the initiating country. But as capital mobility rises and financial markets grow increasingly integrated, the higher interest rates available on domestic debt attract foreign investors. They substitute higher-yielding foreign assets for their domestic government's obligations, driving up interest rates overseas as well as at home. Once the completion of monetary union eliminates devaluation risk, the strength of this linkage will grow. Governments other than the one responsible for the initial increase in public spending will then be forced to levy additional distortionary taxes

to cover their increased debt-service costs. While the benefits of fiscal expansion will still accrue at home, some of the costs will now be borne abroad. In the absence of mechanisms to coordinate and restrain public spending, fiscal policies will be too expansionary.

This problem provides a rationale for the fiscal rules embedded in the Maastricht Treaty. Article 103 of the treaty instructs member states to "coordinate [their policies] within the Council." The Council, acting by a qualified majority on a recommendation from the European Commission, may adopt guidelines for the economic policies of member countries. It will then monitor developments and make recommendations to national governments. If those governments fail to respond appropriately, the Council may recommend that the European Investment Bank halt lending to the country, require it to make non-interest-bearing deposits with the Community, or impose unspecified fines. Article 104 of the treaty places ceilings on national governments' deficits and debts. In Stage II of the transition to EMU (when policies are supposed to converge and responsibility for harmonizing them is transferred to the European Monetary Institute, the predecessor to the European Central Bank), currently scheduled to start in 1994, governments will be required to limit their budget deficits to 3 per cent of GDP and to reduce their debts to 60 per cent of GDP.¹³ In Stage III, when the European Central Bank comes into operation, the treaty binds national governments not to run excessive deficits, although it does not specify numerical thresholds like those of Stage II.

Although the 19th century gold standard was also characterized by a high degree of financial integration, there was no perceived need for formal restraints on national fiscal policies. There was no provision for

budgetary coordination nor significant complaint of beggar-thy-neighbor fiscal policies. One reason was the more modest place of government budgets in the economy. Under the gold standard, as Goodhart (1992) observes, "governments played a very much smaller role in the economies of their respective countries." Since the level of public spending was low, any tendency for excessive deficits in one country to drive up interest rates in others could be neglected. Since there was no properly articulated theory of the role of fiscal policy in macroeconomic stabilization, the temptation to manipulate fiscal policy in beggar-thy-neighbor fashion hardly existed. In the countries at the center of the gold standard system, governments effectively imposed fiscal rules upon themselves. They "generally abided by a balanced budget objective, which could be regarded, in effect, as representing the required fiscal constraint on national policies."¹⁴

Had governments made more active use of discretionary fiscal policies, as they came to do in the 1920s, the situation under the gold standard still would have differed from that in Europe's prospective monetary union. A government which lost control of its fiscal policy or of its capacity to service its domestic debt could abandon gold convertibility and turn to the central bank for money finance. The central bank effectively back-stopped the bond market, purchasing debt that the private sector sold and preventing a collapse of bond prices from undermining financial stability. Thus, in countries like Argentina at the periphery of the gold standard system, repeated failure to adhere to balanced-budget rules led to monetization of the public debt, suspension of gold convertibility and depreciation of the exchange rate.

In a European monetary union the participating countries, no longer possessing a national currency or a national central bank, will lack this option. The consequences for monetary and financial stability will depend on how the European Central Bank responds. The Maastricht Treaty prohibits it from monetizing government budget deficits. A "no bail-out" rule ostensibly prevents it from back-stopping government bond markets. While this minimizes any inflationary bias, McKinnon (1993) suggests that such provisions threaten to undermine the stability of financial markets in heavily indebted countries, with negative repercussions that will be felt throughout the monetary union.

Others (e.g. Bishop 1993) question whether the no bail-out rule will be effectively enforced. They point to lax regulation of bank investments in public debt as creating a danger that fiscal problems will destabilize national banking systems. Notwithstanding its statute, the European Central Bank will come under pressure to bail out the banks by supporting the bond market, even if doing so risks inflation. The knowledge that the ECB possesses this incentive will encourage fiscal profligacy on the part of susceptible countries.

One response to this problem would be to apply fiscal restraints to the constituent jurisdictions in order to prevent the conditions conducive to debt runs from arising in the first place. The existence of statutory and constitutional restraints on the debts and deficits of state governments in the USA are often cited in this connection, although they arose for rather different reasons from those under discussion here.¹⁵ The experience of U.S. states suggests, however, that fiscal restraints, even at their strongest, can sometimes be evaded through the use of off-budget

financial instruments and other such devices.¹⁶

Another response is to strengthen the restraints on the central bank. The problem then is what will guarantee time-consistent enforcement of such restrictions. Even central bankers operating under a relatively rigid statutes retain significant discretion. They may affirm their commitment to the no-bailout rule *ex ante* but still retain the incentive to bail out governments experiencing a debt run *ex post*. Aware of the central bank's incentives, profligate governments may have no incentive to restrain themselves.

A third possibility is to strengthen the rules governing commercial bank investments in public debt (by, for example, requiring that banks continuously value their public debt holdings at market prices), and to require that states promptly divulge information on their fiscal condition so as to strengthen the operation of market discipline.¹⁷ Historical experience suggests, however, that market discipline is less than wholly effective. As Fishlow (1985) documents, 19th century investors were slow to ration governments out of the market when they began to run into solvency problems. Default on foreign-currency denominated debts, the service on which could not be guaranteed by printing domestic currency, was a recurrent problem.

The implication of these time-inconsistency and information problems is that neither a no-bailout rule, nor restraints on government debts and deficits, nor provisions for prompt disclosure of information on the public finances will necessarily suffice to contain the negative repercussions of inappropriate national fiscal policies. All three measures may be required in Europe's monetary union. That they were not required under the 19th

century gold standard reflects the fact that debts and deficits were small, and more importantly that the existence of national central banks and national currencies allowed the gold standard to function as a contingent rule. A government with debt problems could abandon the gold standard and turn to its national central bank for support. This stabilized financial markets without encouraging profligacy on the part of national fiscal policymakers, since the costs of the bail-out were borne at the national level.

6. Central Bank Independence

The Maastricht Treaty and the draft statutes of the European Central Bank lay great stress on monetary independence. Representatives of the European Council are prohibited from serving on the ECB's Governing Council (comprised of the president, the vice president and four members at large, plus the head of each national central bank). Governing Council members are prohibited from receiving instructions from their national governments. No approval by national governments or other EC bodies of monetary policy decisions is required. Members of the Executive Board of the Governing Council (which excludes the national central bankers) will serve long terms in office and cannot be reappointed nor dismissed arbitrarily. Even national central bank governors on the Council must serve for at least five years, which will require some of the participating countries to revise their national central bank laws.

At first blush, experience under the gold standard appears to support the priority attached by the Maastricht negotiators to central bank

independence. Most 19th century central banks were privately owned and operated. The conduct of monetary policy was less politicized than it was to become subsequently. The balanced-budget rule described above relieved central banks of pressure to monetize budget deficits. Moreover, there was little perception that monetary policies might be inconsistent with domestic prosperity. There was only limited awareness that defense of the gold standard and the reduction of unemployment might be at odds.

Unemployment emerged as a coherent social and economic problem only around the turn of the century. Those observers who connected unemployment to the state of trade rarely related aggregate fluctuations to interest rates or monetary conditions. They possessed only limited appreciation of how central bank policy affected the economy. There was no well-articulated theory of how supplies of money and credit could be manipulated to stabilize production or reduce joblessness. The working classes, possessing limited political power, were unable to challenge this state of affairs. In many countries, the extent of the franchise was limited. Labor parties rarely exercised significant influence. Those who might have objected that restrictive monetary policy created unemployment were in no position to influence it. Domestic political pressures thus did little to undermine the autonomy of monetary policymakers.

The United States was the exception that proved the rule. There, as Sylla (1988) emphasizes, monetary policy was relatively politicized. Although the controversies surrounding the First and Second Banks of the United States left the country without a central bank, the Department of the Treasury increasingly assumed central banking functions. As a limb of the Executive Branch, the Treasury was subject to intense political

pressure. Universal male suffrage allowed farmers and urban wage earners to pressure it to pursue cheap money policies consistent with reducing the real value of mortgage debts and enhancing employment opportunities. They allied with silver-mining interests seeking the coinage of silver to support the metal's market price in the face of burgeoning supplies.¹⁸ In the 1890s, at the height of the Populist Movement, the Sherman Silver Purchase Act compelled the Treasury to inject additional currency into circulation. Interest differentials opened up between London and New York, and the viability of the American gold standard was threatened (Garber and Grilli, 1986). Only William Jennings Bryan's defeat in the 1896 presidential election ensured the survival of the dollar's gold parity. In Europe, where the franchise was more limited, silver mining interests were less powerful and the conduct of monetary policy was sometimes delegated to non- or quasi-governmental entities, no such problems arose.

On closer scrutiny, the extent of central bank independence under the gold standard becomes more difficult to characterize. Consider for example the positions of the German Reichsbank and the Bank of France. While the Bank of France was a private company, its governor was a civil servant appointed by the Minister of Finance, as were 3 of the 12 members of the Council of Regents. Though policy was made by majority rule within the Council, the governor could veto its decisions. The government's leverage over the Bank rose each time the latter's exclusive right to issue notes came up for renewal (in 1840, 1857 and 1897). The State's demands for central bank financing of its expenditures were considerable: in 1862, for instance, fully half the bank notes in circulation were loaned to the government (Bouvier, 1988).

Plessis (1982) shows that the State was rather successful in influencing the policies of the Bank of France. It repeatedly compelled the Bank to reduce the discount rate. In 1867 the Bank of France capitulated to pressure to bail out the Credit Mobilier. In 1897 it agreed under duress to establish a system of permanent advances to the semi-public Credit Agricole.

The German Reichsbank, which began operations in 1876, was not even a private stock company like the Bank of France but a "juridical person" operating under government control. The Reich retained the right to terminate the activities of the Reichsbank or to nationalize it; the latter option was debated in 1889, 1899, and 1909. Central bank employees were civil servants. The Chancellor was the central bank's head official. Although the Bank Directorate, whose members were nominated by the Bundesrat (the federal legislature) and served life terms, decided matters of policy by majority vote, in the event of a conflict with the government it was required to follow the Chancellor's instructions.

Holtfrerich (1988) cites several occasions on which Bismarck intervened to influence the conduct of monetary policy. In December 1880 he ordered the Reichsbank to raise the discount rate and restrict lombard credit. In 1887 he instructed it to stop discounting Russian bonds.

The question is how central bank independence of this rather limited sort proved consistent with the maintenance of the gold standard in countries like France and Germany. The answer is that support for the gold standard transcended the central bank and pervaded the government and the polity. In 1856, for example, when the Regents of the Bank of France were split over whether to maintain gold payments, it was the government that

ultimately compelled them to take steps to maintain convertibility (Bouvier, 1988). In Germany the government pressured the Reichsbank to defend the gold standard more often than it influenced it to direct policy toward other ends.

The history of the gold standard thus suggests that central bank independence is a will-o-the-wisp. Central banks then, like even the most independent central banks now, were far from free of government pressure to adapt their policies to other ends. Today, German Chancellors who come into conflict with the Bundesbank can, with a sympathetic parliamentary majority, simply change the relevant central bank statute. Accounts of Bundesbank history (viz. Kennedy 1991) portray German's central bank as not unresponsive to outside pressure. Statutory changes are more difficult to engineer in congressional systems like that of the United States, where the President, the Senate and the House of Representatives must agree. But even there, the White House appears to have significant influence, via moral suasion, over the conduct of monetary policy. The Fed, it is argued, is reluctant to oppose the chief executive elected by the nation (Maisel, 1980). When a conflict arises between the Fed and the Congress, Reserve System officials are called up to Capitol Hill to testify beneath the hot lights of Congressional hearing rooms. That these procedures matter is supported by evidence (e.g. Grier 1984) that shifts in the growth rate of the money supply are affected by shifts in the membership of the Senate Banking Committee.

It would be naive to assume that the European Central Bank will somehow enjoy significantly greater insulation than the most independent central banks possess today or than they possessed in the 19th century.

For the ECB to pursue policies designed to achieve price stability, statutory independence will not suffice. Support for those policies must also extend throughout government and, by implication, the polity.

7. Is There an Interwar Analogy?

In contrast with late-19th century experience, the performance of the interwar gold standard was unsatisfactory in all important respects. Reconstructed in the mid-1920s, the system collapsed in 1931, having failed to restore anything resembling balance of payments equilibrium. In the interim, it guaranteed neither price nor output stability, as the disaster that was the Great Depression illustrated so vividly.

The unsatisfactory performance of the interwar gold standard can be understood in terms of the erosion of the institutional bases for the operation of the prewar system.¹⁹ The extension of the franchise, the spread of unionism and the rise of political parties dominated by the working classes eroded what insulation monetary policymakers had enjoyed. Growing awareness of the links running from monetary policy to employment transformed the former into a contentious issue. This undermined both the limited independence which prewar central banks had enjoyed and the priority attached to the maintenance of the gold standard.

As the credibility of central bankers' commitments to their gold standard parities was called into question, capital no longer flowed in stabilizing directions in response to disturbances to the balance of payments. Frequently it did the opposite, testing the resolve of the authorities.²⁰

Finally, the temporary suspensions of convertibility to which prewar

governments had been able to resort were no longer feasible in the 1920s. The escape-clause feature of the prewar system was predicated on the credibility of governments' commitment to gold convertibility under normal circumstances and the conviction that the disturbances in response to which suspensions took place were not of the authorities' own making. Neither precondition was present after World War I. The war overturned prewar fiscal conventions, increasing public spending, stimulating the creation of new social programs, and redistributing tax burdens. It was no longer clear that governments would take whatever fiscal steps were required for the maintenance of exchange rate stability. In many countries, failure to agree on the composition of spending cuts allowed deficits, inflation and exchange-rate depreciation to persist. Although deficits had been reduced by the mid-'twenties, fiscal gaps remained. If the lending which made possible their financing dried up, it might become necessary to rely on monetization, even if the latter threatened currency stability. The politicization of monetary policy and compromises of central bank independence that had occurred during and after the war made this danger all the more pressing.

This was precisely the sort of policy-induced exchange-rate instability that could undermine the viability of the escape clause. Rightly concerned that any compromise of legal provisions regarding the statutory gold cover might be regarded as evidence of inadequate fiscal and monetary discipline rather than unfavorable exogenous shocks, the authorities hesitated to violate those provisions even temporarily. They remained stubbornly wedded to defense of their gold standards until banking and balance-of-payments crises forced them to cave in.

The events leading up to the 1931 financial crisis, which brought down the interwar gold standard, bear an eerie resemblance to the exchange-market crisis that punctuated Stage I of the Maastricht process in September 1992. The interwar gold standard was disrupted by the destabilizing policies of the center countries, the United States and France, which between them possessed nearly two-thirds of global monetary gold.²¹ Starting in 1928, both countries ran increasingly restrictive monetary policies, drawing financial capital and reserves from the rest of the world and forcing other countries to raise interest rates in order to defend their increasingly overvalued exchange rates. Those other countries, led by Britain, were unwilling to adjust their exchange rates despite being hit by an external disturbance not of their own making, and instead cited the devastating impact on "confidence" of altering the rate. The immediate spark for the 1931 crisis was banking problems in Central Europe. When Germany and Austria were forced to restrict the convertibility of their currencies and the confidence crisis shifted to London, the Bank of England, slow to recognize the gravity of the situation and fearing the impact on the domestic economy, delayed raising interest rates. When the Bank finally responded, its actions were too little, too late.

In 1992 the names and places were different but the pattern of events was strikingly similar. In 1992 it was Germany rather than the U.S. and France that was at the center of the system. In 1992 it was Germany that imparted a destabilizing impulse to other countries, in the form of the restrictive credit policies of the Bundesbank. In 1992, as in 1931, one of the sparks that ignited the crisis was banking problems, this time in

Scandinavia rather than Central Europe. In 1992 it was countries like Italy, Britain and Spain -- citing the impact on confidence or, to use the currently fashionable term, "credibility" -- that refused to realign their currencies so as to insulate their economies from the depressing effects of restrictive credit policies in the center country. And in 1992, as in 1931, it was the Bank of England that waited too long to initiate its defense of the sterling parity.

What lessons can be drawn from this episode for the transition to EMU? Here I focus on three. First, until policy is formulated collectively by the Council of the European Central Bank, a center country, in the present instance Germany, is bound to exercise a disproportionate influence over its stance.²² If that country, like the U.S. and France between the wars, pursues policies that fail to take into account the impact on other prospective EMU members, strains will arise with the capacity to fatally undermine the convergence process.

Second, in a setting where monetary policy is politicized and impediments to capital mobility have been removed, it is unrealistic to hope that governments will be able to accomodate disturbances by resorting to the escape-clause feature of pegged-rate systems. That they could do so in the 19th century reflected their commitment to the maintenance of convertibility under all but the most exceptional circumstances. By the 1920s, in contrast, one of the conditions that had allowed the authorities to temporarily suspend convertibility in response to exceptional circumstances without damaging the credibility of their commitment to defend it in normal times -- that the contingencies in response to which suspension took place were not of the authorities' own making -- was harder

to satisfy.²³ Policies to reduce unemployment had become paramount, politicizing the conduct of monetary policy. With the depth of authorities' commitment to gold convertibility rendered an open question, resort to the escape clause could seriously damage the authorities' credibility. Governments therefore hesitated to realign their currencies in the period leading up to the 1931 financial crisis. Precisely the same was true of the 1992 EMS crisis, of course, and will again be true if and when narrow EMS bands are restored.

Third and finally, interwar experience makes clear that, once monetary policy becomes politicized, the maintenance of fixed exchange rates in the presence of high capital mobility is problematic. Unfettered capital markets will apply intense pressure to official reserves in order to test policymakers' resolve. Even a policy of stabilizing exchange rates which is rational and desirable in the absence of a speculative attack may be rendered irrational and undesirable by adverse speculation itself. If defending the currency by raising interest rates threatens to do sufficient damage to the economy, it may be rational for policymakers who had willingly pursued policies of stabilizing exchange rates prior to the speculative attack to abandon those policies in response.²⁴ In environments of free capital mobility like the late 1920s and early 1990s, the terms of this tradeoff between internal and external stability tend to be tilted against policymakers seeking to maintain stable exchange rates. Interwar policymakers learned from their experience: when pegged rates were restored after World War II, those responsible for maintaining them demanded and obtained the extra protection provided by capital controls. It remained for their successors in the early 1990s to repeat earlier mistakes.

8. Conclusions

The history of the gold standard provides important cautions for aspiring architects of Europe's monetary union. Although gold standard experience suggests that a currency area can successfully encompass countries characterized by very different macroeconomic conditions and that it can do so even in the absence of fiscal federalism, the essential factors that lent the gold standard this capacity are not present in Europe today. One such factor was tolerance of labor mobility. The participants in Europe's prospective monetary union would be unwilling to contemplate migration on a 19th century scale. Although wage flexibility can substitute for migration, it seems unlikely that eliminating the exchange rate as a instrument of adjustment would force workers to accept a significantly greater degree of wage flexibility; even in the late 19th century, the heyday of fixed exchange rates and labor-market flexibility, wages were far from fluid. In this sense, the experience of the gold standard supports those who insist on the need in Europe's monetary union for alternative shock absorbers such as fiscal federalism.

The contrast between the 19th century gold standard and Europe's prospective monetary union provides some support for measures to limit fiscal autonomy. The commitment to the gold standard was contingent; governments with debt problems could abandon convertibility and rely on the national central bank to back-stop the market for domestic government debt, limiting the scope for financial instability. In contrast, the commitment to EMU will be all but irrevocable, and national central banks will effectively be left powerless. Any bail-out will have to come from the

European Central Bank, which, despite statutes designed to preclude intervention, will have a strong ex post incentive to intervene. The knowledge that the costs of the bail-out will be borne by the Community as a whole will encourage national governments to pursue policies heightening the likelihood that intervention will be necessary. Hence the argument for Community-level oversight of national fiscal policies, for prompt disclosure of public financial information to strengthen market discipline, and for commercial banks to be required to mark their bond portfolios to market.

Gold standard experience also pours cold water on enthusiasts of central bank independence. Central banks have never been as independent as envisaged by the framers of the Maastricht Treaty. Central banks always have and always will be subject to political pressure. If the European Central Bank pursues policies consistent with price stability, this will not be because it is insulated by statute from pressures emanating from the political sphere. Rather, it will reflect the abiding support that policies of price stability have garnered throughout the European polity.

Finally, the contrast between the classical and interwar gold standards raises questions about the Maastricht blueprint for completing the transition to EMU. Once monetary policy becomes politicized, as it inevitably does in democracies with universal suffrage, the authorities no longer enjoy insulation from political pressure or the credibility of an unquestioned exchange rate commitment. In a system of pegged exchange rates, the markets have an irresistible temptation to test their resolve by running on the central bank's reserves, and in the absence of capital controls their doing so is costless. From this perspective, the strong

resemblance between the 1931 and 1992 crises is no coincidence. Exchange rate adjustments -- realignments in the present European parlance -- become difficult to implement because of the questions they raise about the authorities' commitment to the defense of existing parities. Inevitably, the result is a rigid but fragile pegged exchange rate system vulnerable to collapse. A quick jump to monetary union could short-circuit these problems, but a slow transition, as envisaged by the Maastricht Treaty, would have to be buttressed by exceptional measures, such as an agreement to pool central bank reserves at the European Monetary Institute or to impose a temporary tax on foreign exchange transactions.²⁵

Endnotes

1. The process of European monetary unification (EMU) is divided into three stages. Stage I, characterized the harmonization of national economic policies and measures to buttress the independence of central banks, concluded at the end of 1993. Stage II will feature a hardening of exchange rate commitments and a ban on monetary financing of budget deficits and bailouts of national treasuries. Stage III, to commence no later than January 1, 1999 (assuming that at least two countries satisfy certain preconditions at that time), will see exchange rates irrevocably fixed and the European Central Bank (ECB) assuming responsibility for monetary policy. Existing national currencies will not automatically be replaced by a single European currency at the outset of Stage III, although the ecu will become a currency in its own right. How and when the substitution of a single currency will take place will be up to the ECB. See Kenen (1992).
2. On this analogy, see for example Hale (1992).
3. Readers should be aware of the possibility that the manner in which retrospective national income statistics are constructed may introduce spurious volatility into the historical data. Substituting estimates like those of Romer (1989) for the U.S. does not overturn the conclusion, however.
4. In Bayoumi and Eichengreen (1992a), we compute the GNP-weighted standard deviation of disturbances around the corresponding mean disturbance for the same year as a measure of this correlation.
5. Thus, personnel departments became widespread in the 1920s only in the United States, which can perhaps account for the fact that Gordon finds evidence of a post-World War I increase in the extent of nominal rigidity only for that country.
6. For a review of the literature and evidence, see Hatton and Williamson (1992).
7. Eichengreen (1992b) shows that labor flows between French departements and German lander are only a half to a third the rate for U.S. states.
8. See Panic (1992). Note that different data are used than in the portions of Eichengreen (1990) cited above.
9. McKinnon (1988) and Eichengreen (1992a) similarly show that long-term interest rates were more stable and moved together more closely under the gold standard than under subsequent international monetary regimes.
10. This center-periphery distinction under the gold standard is pursued further in Section 5 below.
11. This is precisely the conclusion reached by Blanchard and Katz (1992) for the regions of the United States today.

12. Evidence on the absence of stabilizing capital inflows into depressed U.S. states is provided by Blanchard and Katz (1992).
13. The actual provisions are more complicated than this. Excessive deficits will only be said to exist if the deficit ratio exceeds 3 per cent and if in addition either the deficit ratio has not declined "substantially and continuously" to "close to" that level, or that ratio cannot be regarded as "exceptional and temporary and ...close to" the 3 per cent threshold. The debt ratio will be said to be excessive only if it exceeds 60 per cent and if in addition it is not "sufficiently diminishing and approaching the 60 per cent level at a satisfactory pace."
14. Goodhart (1992).
15. For details, see Bayoumi and Eichengreen (1993).
16. This is not to imply that such restraints are without any effect, only that they are less than completely effective. For discussion, see von Hagen (1992) and Bayoumi and Eichengreen (1994).
17. These are the recommendations of Bishop (1993).
18. Cross-section evidence on the correlation between constituencies' economic characteristics and their support for political candidates espousing cheap-money policies is provided in Eichengreen (1992d).
19. Since I have explored this contrast at length in Eichengreen (1992), I consider it only briefly here.
20. One is reminded of the debate that preceded the French referendum on the Maastricht Treaty, when President Mitterand reassured the French public that the European Central Bank would be responsive to political imperatives, while Chancellor Kohl insisted that it would be independent of both domestic and international politics.
21. The remainder of this analysis of the interwar situation is drawn from Eichengreen (1992).
22. Stage II makes allowance for a predecessor to the European Central Bank, called the European Monetary Institute, one of whose responsibilities will be to arrange economic policy coordination among EMS countries. How much leverage it will actually possess remains to be seen. See Eichengreen (1992e).
23. The importance for credibility of this precondition is emphasized by Obstfeld (1992).
24. Models of such self-fulfilling speculative attacks are provided by Flood and Garber (1984) and Obstfeld (1986).
25. These arguments are fleshed out in Eichengreen and Wyplosz (1993).

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