

ESSAYS IN INTERNATIONAL FINANCE

No. 209, July 1998

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EMU: READY OR NOT?

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MAURICE OBSTFELD



INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS  
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PRINCETON, NEW JERSEY

## ESSAYS IN INTERNATIONAL FINANCE

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The author of this Essay, Maurice Obstfeld, is the Class of 1958 Professor of Economics at the University of California, Berkeley. He has written articles in the fields of international finance, macroeconomics, and international monetary history. His most recent book is *Foundations of International Macroeconomics* (1996), coauthored with Kenneth Rogoff. The following Essay was delivered as the Frank D. Graham Memorial Lecture on April 9, 1998. A complete list of Graham Memorial Lecturers is given at the end of this volume.

PETER B. KENEN, *Director*  
*International Finance Section*

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## EMU: READY OR NOT?

This essay is based on the 1997–98 Frank D. Graham Memorial Lecture, which I had the honor of presenting at Princeton University on April 9, 1998. Frank Graham was deeply concerned with the interplay among national policy sovereignty, exchange-rate regimes, and price-level stability. Today, the world offers an embarrassingly rich diversity of national and regional arenas in which domestic political realities and the desire for exchange-rate stability have come—or threaten to come—into conflict. Europe, where a new common currency, the euro, is to be launched on January 1, 1999, will not be exempt from this tension in the foreseeable future. True, an independent European Central Bank (ECB), rather than national authorities, will set monetary policy for the euro zone. But even as the twenty-first century approaches, national political identity remains a dominant force in the European Union (EU). So long as it does, monetary policies motivated by Europe-wide conditions will invite energetic national challenge, and conflicts over alternative national visions of the ideal framework for economic policy will continue.

More than a quarter-century ago, Max Corden's (1972) celebrated Graham lecture on *Monetary Integration* invoked Frank Graham's (1943, p. 22) own somber prediction concerning a multinational system for the "stabilization of both price levels and exchange rates through the imposition, on all countries, of the requisite monetary policy, with some central bank for central banks as the ultimate governing authority." According to Graham (p. 22),

the struggle for control of such a central bank would be fierce. . . . The chances are strong that the system would be sabotaged by the action of some powerful country, or countries, reluctant to follow the general policy of the controlling authority or in disagreement with the methods by which it sought to make its policies effective.

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Corden's essay quoting Graham was inspired by the Werner Report of 1970, precursor to the Delors plan for monetary union and, therefore, to the Treaty on European Union (Maastricht Treaty). However, his reference to Graham's words was incidental to Corden's main text. Given the remoteness in the 1970s of the Werner plan's seemingly utopian goal, Corden understandably decided against focusing his inquiry on the *political* questions raised by full currency unification. His decision may have been fortunate, for *Monetary Integration* is, even today, often startling in its economic insights, and it remains an essential part of the analytical foundation underlying current research on the euro.

In the late 1990s, though, Frank Graham's warning should resonate much more strongly for Europeans. Economists have increasingly become cognizant of the role politics plays in determining economic outcomes, and with European economic and monetary union (EMU) finally under way, potential fault lines are apparent. EMU, it is often said, is, at bottom, about politics, not economics. Political change, however, is an ongoing, dynamic process, and it is a mistake to think that the visions motivating today's European leaders will be enough to sustain EMU indefinitely. If EMU generates economic, social, or cultural stresses, the political ramifications of these stresses will shape the monetary union's evolution and, indeed, will determine its survival.

## 1 Introduction

On March 25, 1998, the Commission of the European Communities (European Commission) formally recommended to the Council of the European Union that eleven countries be admitted as founder members of EMU.<sup>1</sup> The EU finance ministers and heads of state or government ratified the Commission's recommendation in Brussels on May 2, 1998. Despite an awkward twelve-hour quarrel about the presidency of the European Central Bank (ECB), the new bank was operating by July 1, 1998. Wim Duisenberg of the Netherlands was at its head, having promised publicly—at French insistence—to relinquish his appointment at an unspecified time well before its statutory terminal date.

Under the Maastricht Treaty, the ECB would have no monetary-policy powers until the introduction of the euro on January 1, 1999. Its charge for the balance of Stage Two of EMU was to complete the infrastructure

<sup>1</sup> The eleven countries are Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain.



for the introduction of the single currency. This task was a formidable one. The overarching conceptual framework for monetary policy, the set of monetary instruments to be used, the ECB Council's mode of communication with the public, and myriad other issues remained to be decided (see Kenen, 1998, for a review). The large-value euro payments system intended to link the eleven national payments systems and to facilitate the single monetary policy (TARGET) still required completion and debugging.<sup>2</sup> Such technical preparations would be essential for a smooth lift-off on EMU's first day of business, Monday, January 4, 1999.

The problem of Europe's readiness for EMU goes far beyond the immediate technical tasks that the newborn ECB has faced, despite a continuing state of denial among many observers. Nearly everyone acknowledges, for example, that European unemployment is perilously and unsustainably high, and that labor-market reform would ease life under the single currency. Yet the hope in Europe is that the single currency itself will induce greater flexibility in member states' labor markets. That outcome, it is argued, follows from several features of EMU, notably the independence of the ECB and the greater cross-border transparency and competition that common adoption of the euro will allow. Unfortunately, it is not hard to come up with equally plausible arguments under which labor-market flexibility does not decline on its own; see, for example, Calmfors (1998).<sup>3</sup>

In this essay, I shall focus on two specific hazard areas in the transition from Stage Two to Stage Three, as well as on some key problems of Stage Three that EMU's monetary and fiscal structures appear ill prepared to handle. The transitional hazards, discussed in sections 2 and 3, are of considerable theoretical as well as policy interest. They concern the best ways to coordinate monetary stances and to lock exchange parities for a smooth switch from eleven national currencies to a single joint currency. A potential problem of Stage Three, which lies behind the difficulty of the transition and is central for EMU and for any currency union, is the possibility of nationally asymmetric real shocks. Section 4 reviews this topic in the context of Ireland's recent experience. Section 5 discusses weaknesses in the structure of Stage

<sup>2</sup> TARGET stands for Trans-European Automated Real-Time Gross Settlement Express Transfer System.

<sup>3</sup> An unfortunate reminder of the labor-market problem was the one-day strike called by the European Commission staff the day before the Brussels summit. The strike was a protest against management proposals that Commission employees feared would reduce job security and benefits.

Three that are connected with the provision of lender-of-last-resort facilities in the euro zone and with the framework for supervising financial institutions. The deficit and debt limits embodied in the excessive-deficits procedure of the Maastricht Treaty and the subsequent Stability and Growth Pact have been justified by the threat high debts might pose to the stability of the euro zone's financial markets. Section 6 reviews the past and prospective fiscal adjustments of the eleven countries that will be founder members of EMU (the EMU 11) and asks what difficulties these adjustments might pose for macroeconomic policy and growth. Section 7 concludes the discussion.

## 2 The End of the Beginning: Choosing Irrevocable Pegs

An inescapable requirement of the transition from Stage Two to Stage Three is to redefine all nominal prices in the eleven member economies in terms of the euro. Thus, the EU must decide the value of a euro in terms of deutsche marks, French francs, and so on. The decision is an important one because two issues are at stake. First, the choice of irrevocable conversion rates of member currencies against the euro affects relative levels of national wealth. Second, and arguably more important, the choice of conversion rates affects the initial *relative* price levels in the member states, provided nominal prices and wages display some stickiness. That is, the choice of conversion rates affects relative competitiveness at the start of monetary union.

In thinking about the effects of alternative conversion rates, it is important to distinguish the consequential from the incidental. What really matters are the *bilateral* conversion rates between national currencies implied by the chosen rates against the euro. The “scale” or “size” of the euro currency unit itself is irrelevant: there are no real effects from multiplying each national currency rate against the euro by the same constant. As an example, imagine that for France and Germany, the chosen conversion rates against the euro are  $S_{FF/E}$  francs per euro and  $S_{DM/E}$  marks per euro. These rates imply the bilateral conversion rate  $S_{DM/FF} = S_{DM/E}/S_{FF/E}$ . If  $P_{FF}$  is the French franc price level at the start of Stage Three, and  $P_{DM}$  is the deutsche mark price level, then, after the conversion to euros, the Franco-German real exchange rate will be

$$\frac{P_{FF}/S_{FF/E}}{P_{DM}/S_{DM/E}} = \frac{S_{DM/FF} P_{FF}}{P_{DM}} .$$

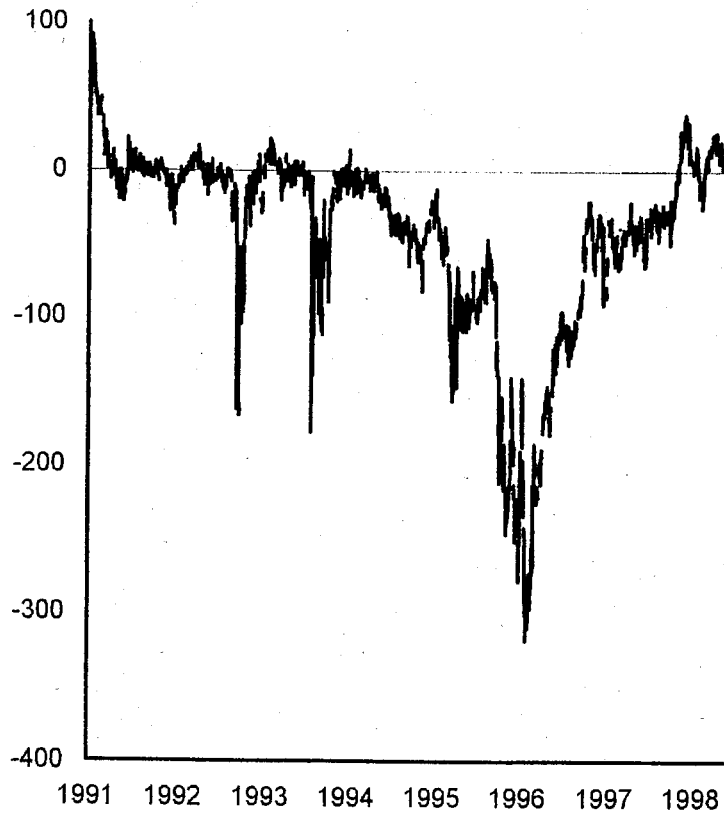
All that counts for this ratio in the short run (that is, given national money price levels) is the implicit bilateral conversion rate,  $S_{DM/FF}$ .

The Maastricht Treaty (Article 109[4]) and a subsequent 1995 decision of the European Council at Madrid tightly delimit the procedure for choosing the conversion rates of EMU member currencies into euros and, hence, the implied bilateral conversion rates. A member currency's conversion rate into euros is to equal its end-of-Stage-Two market exchange rate against the European Currency Unit (ECU) basket of twelve EU currencies. This requirement has the relatively minor implication that the euro's scale probably cannot be known until December 31, 1998 (Denmark, Greece, and the United Kingdom will not adopt the euro in 1999, but their currencies are components of the ECU basket). Much more important is a second implication—that the bilateral conversion ratios for Stage Three will equal the bilateral market exchange rates at the close of Stage Two. These provisions and their implications are discussed at length in Obstfeld, 1998 (which provides references to related literature). This interpretation of the relevant EU legislation is confirmed by the joint communiqué issued at the Brussels summit (EU, 1998).

Why did the EU choose this mode of determining conversion rates? European leaders have hoped that the ECU would evolve into Europe's single currency and, for that reason, have long sought to promote the ECU market by promising that arbitrary EU decisions—such as changes in basket composition upon the accession of new EU members—would not be allowed to modify the ECU's value. The ECU's reserve-currency status in the European Monetary System (EMS) was another motivation for avoiding such modifications. Moreover, the ECU referred to in many private contracts is a purely inside currency that is not convertible into its basket components, simply because no outside authority guarantees that convertibility. Because no national economy issues or prices in the private ECU, its exchange rate would be indeterminate without the prospect that some day, the private ECU would be pegged to a true currency (Folkerts-Landau and Garber, 1995). To support the private ECU market, EU authorities have long had an interest in cultivating the expectation of such a peg. Figure 1 illustrates the behavior of the private ECU compared with the corresponding official currency basket from 1991 through June 8, 1998.

Because the ECU basket has had a tendency to depreciate against the hard currencies of the exchange-rate mechanism (ERM) core, public relations have called for a different name for the new currency. The name “euro” was duly chosen by the Madrid Council in December

FIGURE 1  
 THE OFFICIAL VS. PRIVATE ECU SPREAD, JANUARY 1991 TO JUNE 1998



SOURCE: European Monetary Institute: daily data from January 2, 1991, through June 8, 1998, with some missing observations.

1995. To ensure consistency with the Maastricht Treaty, which refers to the single currency as the ECU, the Madrid Council stipulated that the ECU, which ceases to exist *qua* basket at the start of Stage Three, will merge seamlessly into the euro at a 1-to-1 parity. This requirement yields the implication mentioned above, that bilateral conversion rates for Stage Three must be the market exchange rates at the close of Stage Two.<sup>4</sup> The Madrid Council also implied that all private ECU

<sup>4</sup> To see this implication, let  $S_{DM/ECU}$  be the market price of the official ECU basket in terms of deutsche marks on December 31, 1998; let  $C_{DM/E}$  be the Stage Three conversion rate for deutsche marks into 1 euro, and let  $a_i$  be the number of currency  $i$  units in the

contracts would be payable in euros at this par, and market participants now expect that this will generally be the case.<sup>5</sup>

A fully credible promise of a 1-to-1 conversion rate for private into basket ECU (that is, into euro) would have driven the values of the two very close to equality, eliminating at the same time the possibility of an indeterminate value for the private ECU. The data in Figure 1, however, show that for the 1990s, the most sizable discounts of the private ECU relative to its basket counterpart occurred *after* the Madrid Council's end-of-1995 ruling. Figure 1 reminds us that until quite recently, markets harbored considerable doubts that EMU would happen. As of early June 1998, however, the private ECU was trading very close to par.

Leaving aside the rationale behind the mandated procedure for choosing conversion rates, what are its implications? At one time, it was popular to recommend that the EU authorities somehow "let markets decide" the closing Stage Two bilateral exchange rates, which would then become the immutable Stage Three conversion rates. However, such procedures could lead to excessive volatility in exchange rates and

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ECU basket. In order for the equality 1 euro = 1 ECU to govern the euro's introduction when both sides are reckoned in, say, deutsche marks, the condition

$$C_{DM/E} = S_{DM/ECU} = \sum_{i=1}^{12} a_i S_{DM/i}$$

must hold (as confirmed in EU, 1998). This constraint must hold equally, however, for any other EMU currency, for example, the French franc, so that

$$C_{FF/E} = S_{FF/ECU} = \sum_{i=1}^{12} a_i S_{FF/i} = S_{FF/DM} \sum_{i=1}^{12} a_i S_{DM/i} ,$$

where triangular arbitrage among the end-1998 market rates has been assumed. The last two equations imply, however, that

$$C_{FF/E}/C_{DM/E} = C_{FF/DM} = S_{FF/DM} .$$

Thus, the Stage Three bilateral conversion rates must equal the December 31, 1998, market rates.

<sup>5</sup> The Madrid Council's decree gave rise to some confusion in markets but has now been clarified. Council Regulation (EC) No. 1103/97 of the Council of Ministers, approved on June 17, 1997, provides, in the words of the European Monetary Institute (EMI, 1998, p. 121), that "contracts making reference to the Community definition of the ECU (i.e., 'basket' ECU) will be converted into euro at the 1:1 rate and establishes a presumption that the same will happen in the case of contracts without such a definition of the ECU, although this presumption will be rebuttable taking into account the intention of the parties, thereby preserving the principle of contractual freedom."

also open the door to possible beggar-thy-neighbor depreciations by future EMU members (see Obstfeld, 1998, for discussion). As a result, the EU announced on May 2, 1998 (at the Brussels summit) that the ERM bilateral central rates then prevailing would be adopted as the bilateral conversion rates on the first day of Stage Three (EU, 1998).

A notable feature of this plan is that the preannouncement of bilateral rates cannot have the force of a legal commitment. Ministers are bound, instead, to *derive* the bilateral conversion rates from the December 31, 1998, market exchange rates against the basket ECU. Nothing in EU law rules out the earlier May 2 announcement concerning bilateral rates, however, and EU officials clearly hope that the announcement will be believed by the markets, which then will obligingly drive bilateral market rates to a pinpoint December 31 landing on the chosen rates.

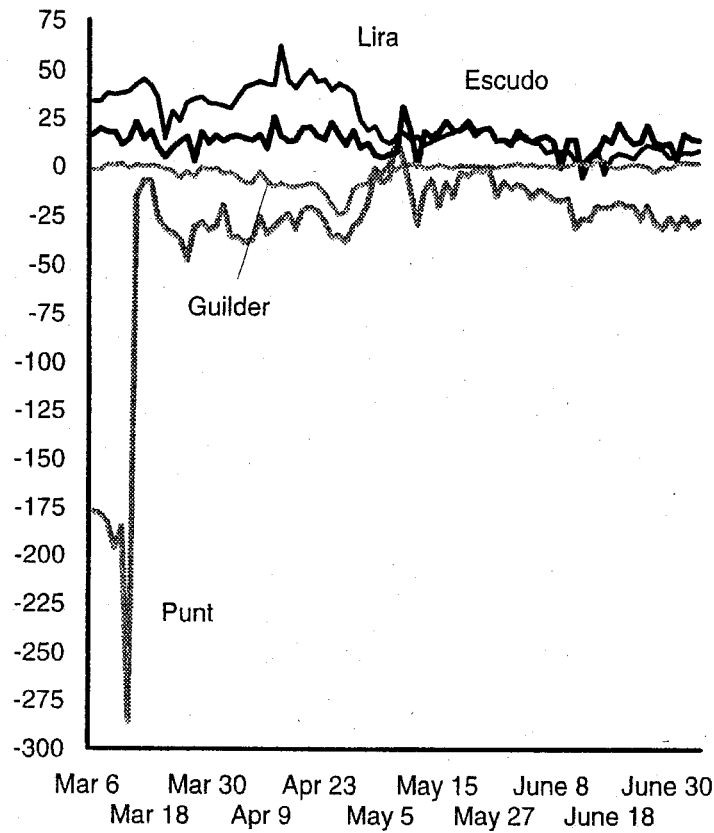
The problem with this scenario is that the authorities' announcement cannot be fully credible. To see why, imagine that markets do not believe the announcement and, instead, drive bilateral market rates to December 31 levels that are different from those that have been announced. In that event, EU authorities would be obliged to ignore their May 2 announcement in favor of the market's verdict. So conspicuous a failure would not enhance the credibility of future EMU policy.

But why should markets disbelieve the authorities' promises? As an example of why they might, suppose the Irish economy accelerates above its current torrid pace, prompting the country's central bank to raise interest rates and allow the punt to rise further relative to its central parity. Markets might then begin to expect a revaluation of the punt to slow the economy more forcefully prior to the launch of EMU. Indeed, this is just what the EU did on the weekend of March 14–15, 1998, when the punt's central rate was unexpectedly revalued by three percent.

The official argument for the small revaluation of the punt in March 1998 was that it would render more credible the subsequent announcement in May that the existing central rates would stand as irrevocable Stage Three parities. It is nevertheless hard to be confident that further realignments will be precluded by the May 2 announcement. After all, 1998 is the last year for adjusting a national exchange rate in response to a national problem. In the absence of a credible announcement tying down the December 31 bilateral rates, however, exchange-rate volatility could emerge, particularly in the face of severe market shocks.

One can look for evidence on the credibility of the Brussels preannouncement in one-year bilateral forward exchange rates, which are market-based forecasts of the future Stage Three conversion rates.

FIGURE 2  
 ONE-YEAR FORWARD RATES VS. CENTRAL RATES AGAINST THE DEUTSCHE MARK,  
 MARCH TO JULY 1998



SOURCE: *Financial Times*: daily data, March 6 through July 6, 1998.

Figure 2 plots daily differences between one-year forward rates against the deutsche mark and bilateral central rates against the deutsche mark for four EMU currencies.<sup>6</sup> The Dutch guilder is basically right on

<sup>6</sup> Note that if markets expect *with certainty* that the future bilateral conversion rates will equal current bilateral ERM central rates,

$$C_{FF/DM} = S_{FF/DM}^{central}$$

in the notation of footnote 4, then, for any annualized French franc and deutsche mark

track (except for a brief flurry of [unfounded] revaluation speculation prior to the Brussels summit) and serves as a control currency.

Even before the May 2 announcement, it was widely anticipated that the Europeans would wish to choose negotiated ERM bilateral central rates as the future Stage Three conversion rates. Figure 2 shows that markets strongly factored in a possible revaluation in the punt's central rate through March 13, as the Irish currency's forward rate hovered nearly 200 basis points below its central rate. Even after the small revaluation, a sustained discrepancy of about 30 basis points remained through April, however, suggesting that markets were wary of a second possible realignment. The other currency showing a sustained discrepancy prior to the Brussels summit is the Italian lira, which displayed the slight possibility of a devaluation (the largest discrepancy in April being 62 basis points). There were also discrepancies for currencies that are not pictured. The discrepancy for Finland's markka, nonnegligibly negative early in March, was reduced by half shortly after the central bank (Suomen Pankki) raised Finnish interest rates in mid-month (an action discussed further below).

In the week after the Brussels preannouncement of the conversion ratios on May 2, all the forward rates moved strongly toward their central rates. Since then, some have moved away again, although not generally so far as to reach levels that prevailed before May. The escudo has shown a slight but economically significant discrepancy. More strikingly, the Irish punt has continued to show a larger (and apparently growing) gap. Evidently, the market attaches a small, albeit still positive, probability to an additional punt realignment.

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nominal interest rates  $i_{FF}$  and  $i_{DM}$  on instruments of duration  $T$  maturing after January 1, 1999, arbitrage guarantees that

$$\frac{S_{FF/DM}^{central}}{S_{FF/DM}} = \frac{1 + Ti_{FF}}{1 + Ti_{DM}} .$$

(Of course, interest differentials must converge to zero as  $T \rightarrow \infty$ , given certainty about the conversion rates.) However, covered interest parity ensures that the forward exchange rate  $F_{FF/DM}$  (for any duration  $T$  maturing in Stage Three) also must satisfy the preceding displayed relationship, implying that

$$F_{FF/DM} = S_{FF/DM}^{central} .$$

This implication is the basis for the test in Figure 2. Notice that current spot exchange rates need not be very close to central rates, even if forward rates equal central rates, when there are sizable interest differentials and Stage Three is still some time away.



The problem of a noncredible announcement of permanent conversion rates can be avoided if the national central banks of the future EMU members intervene in some concerted way to drive market bilateral rates to the preannounced levels. Several schemes have been proposed (see Obstfeld, 1998). For example, Robert Flood and Peter Garber (1998) suggest forward-market intervention at the end of Stage Two. This intervention would peg at the preannounced levels the bilateral exchange rate on contracts with value dates at the start of Stage Three. The authors argue (p. 4) that “the details of TARGET system operations are a key element in making credible unlimited intervention in support of selected bilateral exchange rates prior to January 1, 1999.” Obstfeld (1998) shows that the same forward pegging can be accomplished through forward instruments denominated in euros, implying a scheme that is workable even in the absence of the theoretically unlimited intercentral bank credits entailed by TARGET. So far, the competent authorities, shrouding their intentions in “mystique,” have not revealed how they intend to guarantee that the bilateral market exchange rates on December 31, 1998, equal their promised values. The Brussels communiqué on conversion ratios for the euro (EU, 1998, p. 1) notes only that “the central banks of the Member States adopting the euro as their single currency will ensure through appropriate market techniques that on 31 December 1998 the market exchange rates, recorded according to the regular concertation procedure used for calculating the daily exchange rates of the official ECU, are equal to the ERM bilateral central rates as set forth in the attached parity grid.”

### 3 Interest-Rate Policy Before Stage Three

Some methods of driving market exchange rates to preordained levels could be macroeconomically destabilizing, in the sense that they might accentuate the divergences among member economies over the last part of 1998. In particular, a monetary policy forcing interest rates to converge along with exchange rates might well be counterproductive. The Deutsche Bundesbank, followed by other central banks in low-interest-rate countries, seemed to be embarking on such a route when it raised interest rates late in 1997, and much market commentary has presumed that the policy rates of central banks will have to converge by the end of Stage Two.<sup>7</sup> But this is not necessary or, in general, even desirable.

<sup>7</sup> After the Brussels summit, the *Financial Times* dropped its Monday front-page EMS exchange-rate grid in favor of a “Euro Interest Rate Convergence” grid promising to track the way in which the eleven national official short-term interest rates will converge to a common value forecast by Money Market Services (initially 3.75 percent per year).

To see this point, imagine an EMU made up of two countries the central banks of which maintain constant money supplies throughout the balance of Stage Two. Country 1 has higher output than Country 2, a shorthand that captures in a crude way the possibility of cyclical divergences as Stage Three nears. I derive the path of interest and exchange rates in this scenario under a (hypothetical) credible announcement of the Stage Three bilateral conversion ratio. I then compare that equilibrium informally with the one that would result from purposeful interest-rate coordination. (Later, I shall examine the implications of the credibility problem raised in section 2.)

Assume a simple model in which the monetary equilibrium in either country is given by

$$\frac{M_j}{P_j} = y_j e^{-\lambda_j}, \quad j = 1, 2,$$

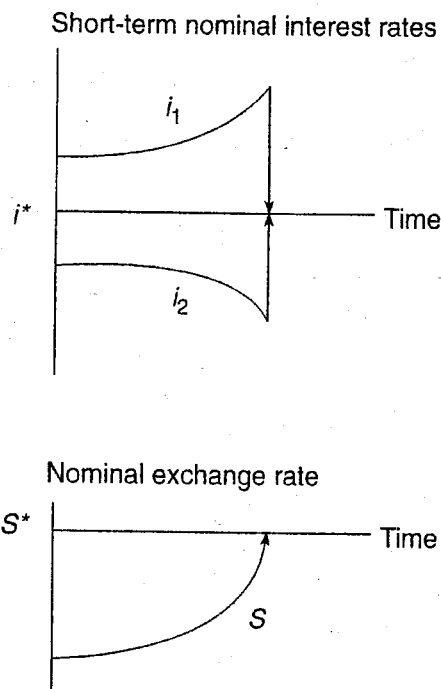
where  $i_j$  is Country  $j$ 's short-term nominal interest rate, uncovered interest parity holds, and purchasing-power parity (PPP),  $P_1 = S P_2$ , is assumed. Let  $S^*$  denote the preannounced bilateral conversion rate. Then, at the start of Stage Three—assuming no immediate change in the euro zone's total money supply—the euro nominal interest rate,  $i^*$ , is given implicitly by

$$\frac{M_1 + S^* M_2}{P} = (y_1 + y_2) e^{-\lambda^*},$$

where  $P$  is the euro area price level measured in Country 1 currency units. Assuming a constant real interest rate,  $i^*$  equals that real rate plus expected inflation, so that the preceding equation can be solved for  $i^*$  and  $P$  (under rational expectations) in the usual way.

Consider now the behavior of short-term nominal interest and exchange rates when  $y_1 > y_2$  but  $S^* = M_1 / M_2$  (meaning that the announced bilateral conversion rate would be the current equilibrium exchange rate at equal output levels). The Country 1 nominal interest rate will be above that in Country 2, and  $S = P_1 / P_2$  will be below  $S^* = M_1 / M_2$ , that is, Country 1's currency will be relatively strong compared to its Stage Three conversion rate. But if  $i_1 > i_2$ , interest-rate parity implies that  $S$  must be rising over time (Country 1's currency is depreciating against that of Country 2). And  $S$  rises at an accelerating rate! The price level in Country 1 is simultaneously rising, pushing the nominal interest rate further up, while that in Country 2 is falling, allowing its interest rate to decline over time.

FIGURE 3  
CONVERGING TO STAGE THREE



Thus, we actually have *divergence* in short-term nominal interest rates until the first moment of Stage Three, when  $S$  reaches  $S^*$  and both countries' nominal interest rates jump to  $i^*$ , with Country 1's rate falling and Country 2's rising (see Figure 3). Accompanying these interest-rate shifts is an instantaneous flow of high-powered money from Country 2 to Country 1 through the newly operative TARGET payments system. Prior to these events, the exchange rate may stay relatively far from its ultimate rate for a while, but it then moves very rapidly toward  $S^*$  shortly before the regime switch.

Note that, in reality, a continuous-time model is not appropriate: the end of Stage Two is December 31, 1998, but the effective start of Stage Three is January 4, 1999. The implication is that central banks' overnight policy rates may still diverge on the last day of Stage Two.<sup>8</sup>

<sup>8</sup> My implicit presumption is that the December 31 market exchange rate used to calculate Stage Three conversion rates (in line with the discussion in section 2) is the rate for transactions with a January 4 value date. Covered interest parity can hold

Of course, longer-term interest rates will converge closely even if (very) short-term rates do not.

This behavior of short-term interest rates may be surprising, even counterintuitive, but it is the only way to reconcile the output divergence with monetary equilibrium absent active interest-rate policy. And it is realistic. The central bank of Finland, currently growing at one of the EU's fastest rates, and showing slightly higher inflation than the EMU core, did push up domestic interest rates on March 19. As Figure 4 shows, Irish three-month interest rates actually rose relative to deutsche mark rates from mid-March 1998 (when the punt was revalued) through early June of that year.

These interest-rate responses illustrate the inadvisability of an alternative policy of enforcing short-term interest-rate convergence prior to Stage Three in the face of divergent cyclical developments. Imagine a non-PPP, sticky-price version of the oversimplified model I have been discussing. Suppose that Country 1 is Ireland and Country 2 is Germany and that their central banks steer both countries' interest rates toward some estimate of  $i^*$  during Stage Two. In Ireland, growth and inflation will accelerate further as the real interest rate falls; in Germany, the opposite will occur. The earlier approach of the exchange rate toward its ultimate level will reinforce the divergent tendencies. These dynamics are reminiscent of Sir Alan Walters' critique of the ERM in the 1980s. Compared to policies that hold relative domestic money supplies constant over Stage Two, this plan would cause the two countries to start Stage Three with a greater cyclical divergence than they otherwise would have had.

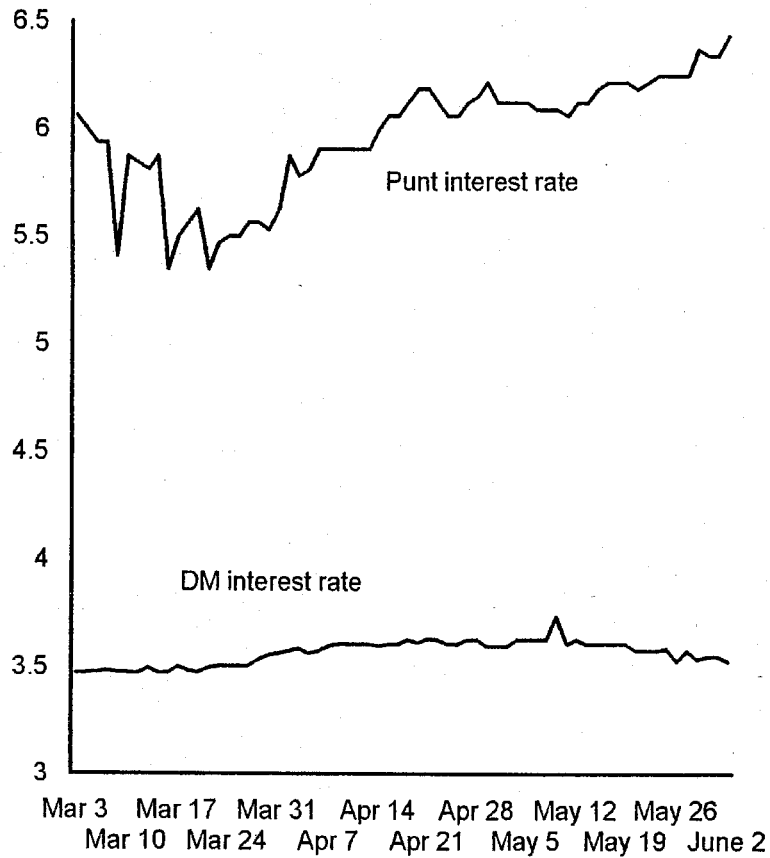
Of course, a policy of interest-rate independence at the shortest maturities cannot have big effects once Stage Three is close. A more potent antidote to overheating would be to revalue the punt again before Stage Three. No doubt, market participants still have that possibility somewhere in mind, however remotely (recall Figure 2). Given the much greater difficulty of tailoring monetary policy to individual members' needs after Stage Three begins, the temptation to use exchange-rate policy when it is still available, even to make minor adjustments, is great.

This brings us back to the credibility problem raised earlier. My discussion in this section has assumed a fully credible future fixed

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between December 31 and January 4, despite interest-rate differentials over the weekend, if the December 31 exchange rate for same-day settlement differs slightly from the day's next-business-day settlement rate. See footnote 6.

FIGURE 4  
 PUNT AND DEUTSCHE MARK THREE-MONTH RATES, MARCH TO JUNE 1998



SOURCE: Datastream: daily data from March 2 to June 2, 1998.

conversion rate between the currencies. However, a policy of interest-rate independence could, in itself, undermine credibility by prolonging the period during which the spot exchange rate remains far from its ultimate irrevocable level. Markets might then begin to question and test the authorities' resolve, with destabilizing effects.

#### 4 Irish Irony

Ireland's 3 percent revaluation on March 19 is highly ironic, because it is the kind of event EMU optimists have been arguing for years would

be unnecessary (for the contrary view, see Lane, 1997). Ireland is the paragon of a small open economy. In 1996, Ireland's exports accounted for 80 percent of its gross domestic product (GDP)—with two-thirds of those exports directed toward the future euro area; its imports amounted to 61 percent of GDP—with more than half of those imports coming from the EMU-11 countries (EMI, 1998, table 10 for Ireland). Even in the early 1970s, Corden (1972) concluded that Ireland, then running a currency board based on sterling, could not possibly benefit from an independent exchange-rate policy, although Belgium and the Netherlands could. Yet situations like Ireland's certainly could recur in the future, and EMU is ill prepared to deal with them.

The standard cost of foregoing an adjustable nominal exchange rate is the consequent inability to adjust rapidly, with minimal unemployment, to an idiosyncratic real shock to the domestic economy. If France suffers a permanent fall in export demand, say, but maintains the French franc's peg, output will decline and unemployment will rise. The culprits in these developments are sticky nominal prices and wages, which, if they were fully flexible, would fall immediately so as to maintain output and employment. Even under nominal rigidities, a more gradual domestic deflation will induce a real currency depreciation that eventually restores external demand and employment, while leaving the terms of trade permanently lower. But the process is long and socially wasteful. The unemployment problem is exacerbated in the EU by low labor mobility coupled with high capital mobility, which allows capital to flee depressed countries while labor stays put (Corden, 1972, p. 27). A discrete nominal devaluation of the franc that left internal money prices unchanged could restore employment much more quickly.

The exchange-rate option is typically thought to be unavailable for small and very open economies. In such settings, a currency depreciation is much more likely to feed quickly into nominal prices and wages. Notwithstanding the greater utility of exchange-rate independence for larger countries, the Irish experience nonetheless offers a relevant example of a small economy that has gained from using its exchange rate as an adjustment tool.

Ireland has been booming since 1994, its growth propelled by a number of idiosyncratic factors. The Programme for Competitiveness and Work, negotiated centrally with labor, limited wage growth from 1994 to 1996 in return for government promises of cuts in the income tax and lower social-insurance taxes. The program was renewed in 1997. The result has been high investment profitability, a sharply

increased share of profits in the economy, booming investment, yet declining unit labor costs and slowing inflation (see Table 1). High (though falling) unemployment, coupled with growing inward migration, has contributed to wage restraint. Alberto Alesina and Roberto Perotti (1997) present empirical evidence on the link between taxes and unit labor costs under varying degrees of labor-market centralization.

The promised tax cuts imparted a sharp stimulus to the Irish economy in 1995, contributing to a GDP growth rate of more than 10 percent that year. The magnitude of the stimulus is, of course, understated by the small measured increase in the fiscal deficit, given the extremely rapid growth in the economy. Additional tax reductions have continued to fuel the economy. The sharp appreciation of sterling after the summer of 1996—in part, caused by fears of a weak euro—had a big incipient effect on Ireland’s competitiveness, because the United Kingdom is the country’s most important trading partner. The authorities responded to the expansionary pressures by allowing the punt to appreciate sharply within the ERM. Between 1995 and 1997, the punt appreciated against the deutsche mark by about 14 percent.

Nonetheless, the punt depreciated back toward its central rate over 1997 as EMU became more of a certainty. Real GDP grew by 10.5 percent in 1997. At the same time, the economy showed increasing signs of overheating: asset prices boomed, especially for housing, and domestic credit grew at a rate double that of nominal GDP. Forecasts of the Organisation for Economic Co-operation and Development (OECD, 1998b), as well as those of the EMI, called for higher future

TABLE 1  
MACROECONOMIC DATA FOR IRELAND, 1994–1998

	1994	1995	1996	1997	1998 <sup>a</sup>
Real GDP growth	7.0	10.4	7.7	10.5	8.6
Growth in unit labor costs	-1.4	-4.3	-0.8	-1.3	0.9
CPI inflation rate	2.7	2.0	1.1	1.2	3.1
General government surplus	-1.6	-1.9	-0.9	0.9	1.5
Return on business capital	11.6	13.7	14.8	16.0	17.8
Employment growth	3.0	4.8	3.4	4.2	3.6
Unemployment rate	14.8	12.2	11.9	10.2	9.3
Punt-DM exchange rate	2.42	2.30	2.41	2.63	2.50

SOURCE: *OECD Economic Outlook*, June 1998b.

<sup>a</sup> OECD estimate/forecast.

inflation. According to the EMI (1998, p. 68), “these risks to inflation are being exacerbated in the run-up to EMU by the expected further decline in short-term interest rates and, should this materialise, by a resulting decline in the effective exchange rate.” It was in this context that Ireland requested a 3 percent revaluation of the punt’s central rate.<sup>9</sup> The adjustment would have left the punt at its new central rate had the currency not promptly appreciated by about 1 percent (as a result of Ireland’s still relatively high nominal short-term interest rate; see Figure 4). Figure 5 shows how the punt-deutsche-mark spot rate behaved relative to the bilateral central rate.<sup>10</sup>

From a global EMU perspective, the punt revaluation ran the risk of being counterproductive in two related ways. First, it risked destabilizing the process of attaining preannounced currency conversion rates (as argued above). Second, it sent a signal that EMU will indeed impose a tight monetary constraint on its members, at least in its first years, so that it is helpful to make even minor adjustments now if that improves the initial conditions and lessens the subsequent political pressures on the new ECB.

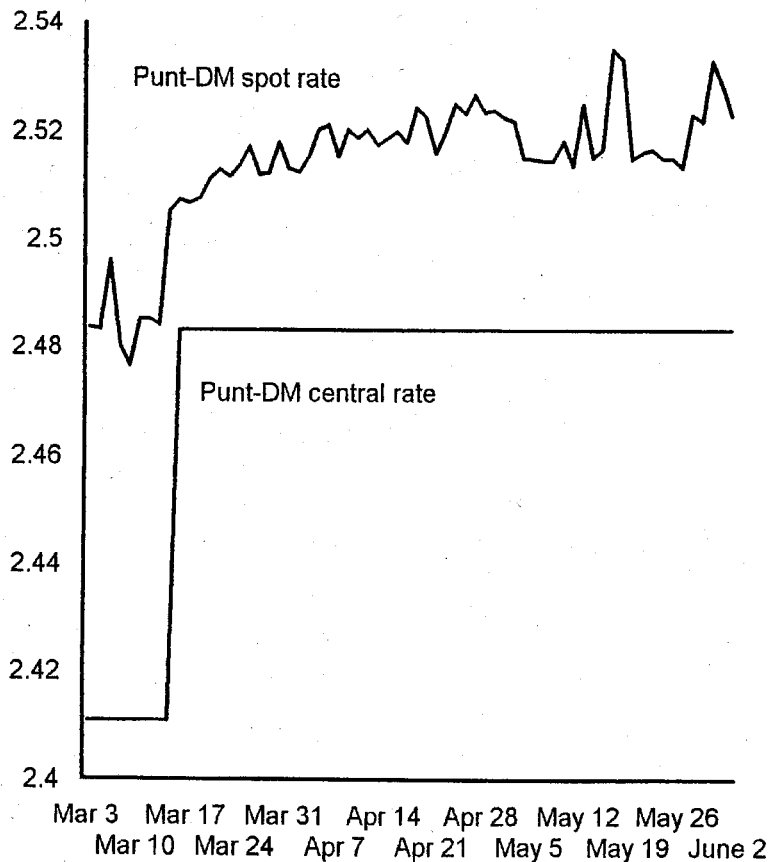
From the more limited perspective of the Irish economy, however, the move definitely was helpful in reducing the size of the eventual *devaluation* entailed by EMU entry and in appreciating the currency in the short term. The realignment relieves some upward inflation pressure, both by keeping import prices down and by maintaining the real wage so as to discourage nominal wage growth. Higher domestic real interest rates will restrain the boom, as will the increase in the real value of consumer debts and mortgages. Ireland will enter EMU less vulnerable to a sudden run-up in euro interest rates. Note that in principle, fiscal policy could have been used to slow consumption growth and cool the economy, but in practice, major fiscal tools were unavailable. Government outlays were already being cut as rapidly as was politically feasible, whereas income-tax

<sup>9</sup> Ireland’s finance minister “was . . . adamant that the decision [to revalue] was taken at Ireland’s request,” not under EU pressure. See John Murray Brown, “Irish ‘Judgment Call’ on Revaluation,” *Financial Times*, March 16, 1998, p. 2.

<sup>10</sup> Footnote 6 implies that if markets had revised their expectation of the Stage Three punt-deutsche mark conversion rate by the full 3 percent of the central parity realignment, the punt should have appreciated by the same 3 percent at unchanged interest rates, and not by roughly 1 percent. It did not appreciate by 3 percent because, as Figure 2 shows, markets had already settled on a nearly 2 percent expected revaluation of the punt’s central rate prior to the event. Longer-term Irish interest rates did fall by about 50 basis points just after the punt realignment, but they soon returned to pre-revaluation levels.



FIGURE 5  
 PUNT-DEUTSCHE MARK SPOT AND CENTRAL EXCHANGE RATES, MARCH TO JUNE 1998



SOURCE: Datastream: daily data from March 2 to June 2, 1998.

increases, often an easier route politically, would have violated the terms of the wage pact and sparked increased wage demands.

The 1998 punt revaluation, coming just weeks before the formal selection of EMU's founder members, illustrates the potential cost of giving up the exchange rate. It also illustrates the scope for idiosyncratic shocks, arising from factors such as divergent trade patterns, union behavior, and fiscal policy. If exchange-rate independence can be useful even for a small open economy such as Ireland's, it is even more important for the large economies of France, Germany, Italy, and Spain, which have trade-to-GDP ratios of about 25 percent, and for which

nominal currency realignment is a much more effective tool than in the Irish case for adjusting quickly to unexpected real asymmetric shocks.

None of this is meant to deny that certain asymmetric financial shocks are avoided by a common-currency regime—notably shocks caused by unjustified shifts in exchange-market sentiment. Corden (1972, p. 28) was overly optimistic when he predicted that “the Canadian experience, as well as well-known theoretical arguments, suggest that short-term capital movements in a floating-rate system are, on the whole, likely to be stabilizing.” Destabilizing exchange-rate movements certainly have been a feature of the post-1973 experience. But if an important member country is hit by a big asymmetric real shock in Stage Three, it will not soften the pressures on the ECB to explain to unemployed workers that the euro has spared them the effects of many hypothetical financial shocks.

## 5 The Problem of Financial-Sector Stability

The current asset-price boom in Ireland brings to mind the possibility of financial shocks that are not directly related to currency movements, but that emanate, instead, from domestic asset markets. Paul De Grauwe has depicted quite vividly the risks Stage Three poses to financial stability.<sup>11</sup> Some EU members, such as Finland, have already gone through boom-crash cycles and have spent large sums strengthening their financial systems. France and Italy are currently cleaning up more limited domestic banking messes. Nonetheless, the Maastricht Treaty’s blueprint for safeguarding financial stability contains grave inherent weaknesses. The set of safeguards currently in place corresponds to the path of least political resistance but is unlikely to be highly effective in preventing or managing financial crises.

The Maastricht Treaty gives the ECB no statutory mandate to act as a lender of last resort; moreover, the bank’s supervisory responsibility for credit institutions is limited to specific tasks assigned by the ECOFIN Council through a unanimous vote, on a recommendation of the European Commission, after consultation with the ECB, and with the assent of the European Parliament.<sup>12</sup> Supervision and regulation of credit institutions is explicitly left in the hands of the existing national authorities, following the principle of decentralization. The ECB has a

<sup>11</sup> See De Grauwe, “Economic and Monetary Turmoil,” *Financial Times*, February 20, 1998, p. 22.

<sup>12</sup> But the Treaty does not forbid a lender-of-last-resort role, although the Bundesbank, on which the ECB is modeled, offers little or no precedent in this regard.

vague mandate to “contribute” to the supervisory efforts of national authorities and to promote smooth operation of the euro payments system. Just how it should do so is nowhere explained.

This set of arrangements reflects two characteristics also found in the German system. The Bundesbank has no statutory lender-of-last-resort role, and in Germany, responsibility for the supervision of credit institutions is separate from responsibility for monetary policy. In many countries, the monetary and supervisory functions are separate, and prospective EMU members differ among themselves in this respect. The United Kingdom moved to such a system following the grant of instrument independence to the Bank of England. One justification for separation might be to avoid situations in which the central bank’s resolve to raise interest rates is weakened by too intimate a knowledge of the effects on particular banks’ balance sheets. Charles Goodhart and Dirk Schoenmaker (1995) argue that when the fiscal authority, rather than the central bank, bears primary responsibility for financial rescue operations, it is natural that it should also take the leading role in supervision.

The Bundesbank’s ability to avoid a lender-of-last-resort role, however, and, indeed, to limit its interventions to smooth money-market interest rates, flows from special features of the German financial system, including a relatively low degree of securitization, the dominant position of large universal banks, the high levels of reserves and collateralizable securities that German banks hold, and other features of the domestic payments system. As David Folkerts-Landau and Peter Garber (1992, p. 97) put it:

Financial systems with a limited extent of securitization have in practice a small number of large universal banks in the market for wholesale funds. Wholesale payments and securities transactions are cleared internally in these organizations. The risk of nonsettlement is low due to the lack of significant exposure to non-bank financial institutions and an increased ability to work out unexpected problems quickly among the small number of players. Hence, although the clearing banks ultimately clear on the books of the central bank, there is little need for the central bank to provide intra-day credit or stand ready to act as lender-of-last-resort to the clearing-house to ensure the payments settlement.

The euro financial system will not share these structural features of the German system—certainly not if it aspires to support a financial market competitive with, and eventually absorbing, London. Furthermore, the TARGET system will be a real-time gross-settlement (RTGS) system, whereby payments are made with finality within seconds,

rather than becoming final only at the end-of-day clearing of a netting system. The EU chose an RTGS system to avoid the risk of an unwinding crisis, in which a day's payment instructions are all revoked because a small number of parties cannot settle their net balances in central-bank reserves at the end of the day. Real-time gross-settlement systems, however, require much more liquidity than do netting systems if payment delays and queues are to be avoided.<sup>13</sup> Accordingly, the European System of Central Banks (ESCB) will provide fully collateralized and generally unlimited intraday credit to TARGET users; a standing marginal lending facility will provide overnight credit on similar terms.

Because of idiosyncrasies in national financial institutions, there will be two classes of collateral, so-called "Tier I" collateral, satisfying standards specified for the entire euro area, and "Tier II" collateral that EMU's national central banks (NCBs, which of course will belong to the ESCB) certify as eligible. To minimize the moral-hazard problem of NCBs certifying the risky paper of home institutions as collateralizable, the certifying NCB will bear the entire default risk for a Tier II asset, whereas the ESCB will bear the default risk for Tier I assets (Folkerts-Landau et al., 1997, p. 175). This rather contorted set of rules is necessitated by the political demand that EMU respect diversity in national financial cultures and traditions, a diversity unlikely to survive for long if the euro leads to a truly integrated European financial market.

The greater liquidity needs of TARGET participants and growing financial-market sophistication will gradually push the ESCB to play a more active role in money and other financial markets than the Bundesbank currently plays. As a result, an implicit lender-of-last-resort role is likely to evolve—and experience in the United States suggests that it will be necessary (Folkerts-Landau and Garber, 1992). Certainly, in the case of a systemic payments crisis, only the ESCB will be able to mobilize liquidity quickly enough to avert disaster. The ESCB will be more effective in the role of lender of last resort, and better able to fulfill that role without compromising its mandate to pursue price stability, if it has access to timely information on the balance sheets of private credit institutions.

Perhaps the main weakness in the planned structure of euro-zone prudential supervision is the division of regulatory responsibility among national regulators, some of them NCBs, and hence closely connected with the ESCB, but many of them not. This seems a misguided appli-

<sup>13</sup> For an excellent description of alternative payments systems and the attendant risks, see Pu Shen (1997).

cation of the principle of subsidiarity, because it is hard on several grounds to conceive of the optimal domain of regulation in an integrated financial market as being smaller than the market itself. One reason is that national regulators may not fully internalize the adverse repercussions of a financial crisis, particularly when the bill for containment arrives at the EMU or EU level. An additional problem, stressed by Barry Eichengreen (1993), is that national regulators might favor national institutions or financial centers through lax application of the rules. This sort of problem has arisen in enforcing the Basle Committee's 1988 international bank-capital standards, as national regulators have been pressed by domestic financial interests to adopt overly broad definitions of eligible capital.

Problems can be reduced by harmonizing prudential standards, exchanging information, and clearly assigning regulatory responsibility in areas of possible ambiguity, but gaps seem sure to arise nonetheless. Competitive regulatory leniency, especially coupled with the ESCB's uncertain readiness to act as a lender of last resort, poses a genuine threat to the euro zone's financial stability. Regulatory authority for the euro zone need not be placed in the hands of the ESCB. Such assignment, though, would have the advantage of giving the ESCB better information on borrowers' balance sheets. In the absence of a supranational fiscal authority, moreover, it would conform to the Goodhart-Schoenmaker (1995) prescription that regulatory powers and financial responsibility should go hand in hand. Plainly, however, supervision should be exercised at a global level. As the EMU countries' financial markets become more unified and more similar, any supposed advantages of local regulation will, in any case, wither away.

## **6 Fiscal Convergence and the Conduct of Macroeconomic Policy**

The year 1997 was a time of high fiscal drama, as observers wondered which (if any) core players would achieve fiscal consolidation sufficient to qualify them for entry into EMU. The uncertainty was resolved with near finality when the European Commission (1998) recommended on March 25, 1998, that all existing excessive-deficit judgments of the ECOFIN Council, save that on Greece, be abrogated. In a report issued the same day, the EMI expressed reservations about the sustainability of fiscal adjustment in many of the EMU-11 countries but stopped far short of questioning the Commission's recommendation (EMI, 1998). Subsequent reports of the Bundesbank and the Banque de France, the heads of which had already signed the EMI document,

took similar tacks. The contrasting tones of the Commission and the central bankers are suggestive of future conflicts between EMU's monetary and fiscal authorities.

The Commission took a sanguine view of fiscal adjustment in the EMU-11 countries. Technically, all of them had met the 3-percent-of-GDP deficit test in the short run—France only barely—and forecasts predict smaller deficit ratios in 1998. The 60-percent-of-GDP debt test was interpreted very loosely, so that even Belgium and Italy, with ratios over 120 percent of GDP, qualified on the grounds that their debt levels were declining under the force of primary surpluses. The Commission (1998, p. 18) noted that “the Belgian government has recently confirmed its commitment to maintain the primary surplus at a high level over the medium term.” Italy seems to have made a more qualified commitment, assuming that even slight variations in Commission formulas are immensely significant. Italy promised only “to maintain the primary surplus at an *appropriately* high level over the medium term” (Commission, 1998, p. 24; emphasis added). Recent increases in debt-to-GDP ratios for Austria, France, and Germany were rationalized away, and without reference to the cyclical factors that feature in the Stability and Growth Pact.

As the EMI noted in its own assessment, the Belgian and Italian primary surpluses, even if sustained over the *long* term, could leave the Belgian and Italian debt-to-GDP ratios above the 60 percent reference value for as long as fifteen to twenty years. By that time, as the EMI also noted, unfunded public pension systems—also present in France and Germany—will be placing public finances under serious strain. Significantly, the EMI report used the same language to describe the Belgian and Italian fiscal adjustments as it applied to Greece (EMI, 1998, pp. 37, 55, and 79):

Notwithstanding the efforts and the substantial progress made towards improving the current fiscal situation, there is an evident ongoing concern as to whether the ratio of debt to GDP will be “sufficiently diminishing and approaching the reference value at a satisfactory pace” and whether sustainability of the fiscal position has been achieved; addressing this issue will have to remain a key priority for the [Belgian, Greek, Italian] authorities.

The Commission's precedent-setting decisions have signaled, however, that it is unlikely to push countries toward “forceful” debt reduction nearly as hard as the ECB would like.

The EMI's concern did not stop at the high-debt countries. France was singled out as having its debt on a rising trajectory relative to GDP; other countries' deficits were compared unfavorably to the

medium-term goal of a nonnegative budget balance specified in the Stability and Growth Pact. These criticisms, however, may represent the central bankers' last hurrah. In future, the ECB will be able to express its unsolicited views on fiscal policy but will have little leverage to make its views effective except by trading interest-rate cuts for fiscal concessions on the part of EMU member governments.

Are the EMI's views alarmist? Economists have had a hard time coming up with plausible externalities that might justify the excessive-deficit procedure of the Maastricht Treaty or the stability pact (see, for example, Eichengreen and Wyplosz, 1998). Perhaps the best story is the one told by Peter Kenen (1995, pp. 95–96), that a government debt crisis might have cascade effects that endanger the euro payments system as a whole, prompting a monetary expansion that might not be totally reversible. The urgency with which the EMI has focused on debt levels (as well as on the maturity structure of debt) is also motivated by more prosaic fears, I believe, and these fears may paradoxically be caused by the stability pact itself!

Consider a situation in which Italy's debt ratio remains high and Italy is suffering a recession, while for the rest of the euro zone, higher interest rates are appropriate. With a budget in surplus and little debt, Italy would have the option of expanding fiscal policy to offset the ECB's monetary tightening. Under current conditions, however, Italy's interest payments would rise sharply, perhaps pushing it into fiscal cuts to avoid later stability-pact sanctions. The ECB's statutory independence would, in theory, allow it to proceed anyway, but the presence of unresolved fiscal vulnerabilities could certainly worsen the asymmetric transmission of ECB monetary policies and thus threaten the bank's acceptance by the public over the longer run. The EMI's concern about short government-debt maturities is consistent with this fear, as well as with the fear of a generalized euro-zone financial crisis triggered by a government liquidity crisis.

But is it plausible that the stability-pact limits will ever become a serious issue? EMU optimists like Barry Eichengreen and Charles Wyplosz (1998) suggest not, and EMU pessimists like Reimut Jochimsen (1997) agree. I am not so sure. Much depends on the zeal of the ECOFIN Council in enforcing the pact, of course, and that zeal will be procyclical and may decline under a future socialist German chancellor. But it is hard to believe, given the nature of the fiscal adjustments made to satisfy the EMU entry requirements, that intractable deficits are entirely a thing of the past, even if countries such as Italy do not revert to their old dissolute ways.

A primary concern is the *composition* of the fiscal adjustment that has taken place—an issue acknowledged by the Commission but not adequately addressed in its report. In a study of OECD countries after 1960, Alesina and Perotti (1995) find that fiscal consolidations based on cuts in government wage bills and transfer payments tended to be relatively durable; those based on tax increases or cuts in government capital outlays typically were much more quickly reversed.

Alesina's and Perotti's empirical model would predict that much of the fiscal consolidation in preparation for EMU is not durable. Table 2 summarizes patterns of fiscal adjustment between 1991 and 1997.<sup>14</sup> Roughly speaking, the countries fall into several groups. Austria, France, and Germany have generally been moderate-deficit countries, but rising public debt and unemployment over the 1990s would have left them wide of the Maastricht reference deficit in 1997 had they not taken corrective measures. To offset increases in social benefits and interest payments, they have mainly raised taxes and cut capital outlays. Of the three countries, only Germany has made an effort to cut the politically sensitive government-wage bill. In France, that item has actually increased by nearly 1 percent of GDP, and the Jospin government has proposed that public employment be expanded and the work week cut. The Alesina-Perotti findings thus would lead one to question the sustainability of current public-deficit levels, especially with regard to France and Germany.

Finland, Ireland, and the Netherlands form a second group of countries, in which adjustment, to differing degrees, looks more durable. Facing problems similar to those of France (but more severe), Finland has slashed both categories of government consumption, although tax collections have simultaneously risen somewhat and capital outlays have been cut. Ireland's successful fiscal turnaround has been rewarded by lower interest rates on its still sizable public debt. The Netherlands has cut government consumption and taxes. It has also been able to cut social spending and subsidies sharply (by 3.3 percent of GDP) with the help of labor-market reforms. Not surprisingly, these three countries, along with Luxembourg, were the only first-round EMU entrants not subject to prior excessive-deficit findings by the ECOFIN Council.

Belgium, Italy, Portugal, and Spain make up the final group of countries that have generally high structural deficits. For these countries,

<sup>14</sup> The table is based on June 1998 OECD data. It updates a similar table in Obstfeld (1997), which was based on OECD projections of 1997 outcomes.



TABLE 2  
 CHANGES IN EU GOVERNMENT BUDGETS: SELECTED COUNTRIES, 1991 AND 1997  
 (percent of GDP)

	Wage Consumption (1)	Nonwage Consumption (2)	Benefits, Subsidies, and Transfers (3)	Net Interest and Property Payments (4)	Net Capital Outlays (5)	Taxes (6)	Change in Public- Sector Deficit (1)+(2)+(3)+(4) +(5)-(6)
Austria	0.0	0.4	1.5	0.3	-0.5	1.8	-0.2
Belgium	0.4	-0.3	-0.4	-1.7	0.2	2.4	-4.2
Finland	-2.7	-0.6	0.5	3.8	-1.3	0.2	-0.4
France	0.9	0.0	2.6	1.1	-0.7	2.6	1.3
Germany	-0.5	0.3	0.9	1.3	-2.1	0.6	-0.6
Ireland	-1.2	0.0	-0.2	-2.4	0.7	0.3	-3.3
Italy	-1.2	-0.1	0.1	-1.2	-1.8	3.2	-7.4
Netherlands	-0.4	-0.1	-3.3	1.0	-0.7	-2.1	-1.5
Portugal	1.9	0.1	1.7	-3.3	-0.1	4.6	-4.3
Spain	-0.2	0.1	0.5	0.8	-2.2	0.8	-1.8

SOURCE: OECD, *Fiscal Positions and Business Cycles* (diskette, 1998/1), June 1998a.

NOTE: Each entry represents the difference between a 1997 budget item, as a percent of 1997 GDP, and the corresponding 1991 item, expressed as a percent of 1991 GDP. Figures have been rounded. Taxes in column (6) are the sum of direct taxes, indirect taxes, and social security contributions.

the durability of their adjustments will be especially important for life under the EMU stability pact. Belgium's deficit reduction comes from a sizable tax increase coupled with smaller cuts in social benefits and government nonwage consumption. Government wage payments actually have risen, but the country has benefited from falling interest rates. Italy has so far profited somewhat less than Belgium from lower interest rates, but it has cut wage consumption by more than 1 percent of GDP. The bulk of its deficit reduction comes, however, from lower capital outlays and much higher tax revenues. In Portugal, government wages and social spending have risen. The large deficit reduction shown for Portugal in Table 2 is the result of sharply increased tax revenues and a large cut in the interest bill as inflation dropped from over 12 percent per year in 1991 to only 2.2 percent in 1997.<sup>15</sup> In Spain, a cut in capital outlays has been the main force driving the fiscal deficit down. None of the efforts of these final four countries comfortably meets the Alesina-Perotti prescription for durability.

One might argue that in the larger European countries, cyclical factors make current fiscal deficits look artificially high. But the observation that this has generally been true throughout the 1990s limits the solace one can draw. As the EMI (1998) pointed out, demographic trends imply a worsening fiscal trend for countries that, like the United States, have unfunded pension systems. Furthermore, in France, Germany, and Italy, unemployment has played a dominant role in determining the evolution of social-insurance spending (and vice versa). Europe's fiscal problem will remain a live issue as long as its structural unemployment problem is not seriously addressed. France, for one, with its remarkably high share of government outlays in GDP, shows no sign of doing this. The other principal EMU countries have been moving slowly as well.

As has often been noted, EMU will lack the natural shock absorbers provided by fiscal federalism in politically unified currency areas (see Obstfeld and Peri, 1998, for a survey). With national fiscal policy hobbled, these stabilizers will be missed even more in Europe than they would be in the United States, because structural rigidities are greater in Europe, geographic and occupational mobility is lower, and private risk diversification is more limited. It has been reported that 43 percent of Americans own stock shares outright or through mutual funds. The corresponding percentages in Europe are 25 percent in the

<sup>15</sup> An implication is that the fall in Portugal's real (inflation-adjusted) government deficit is much smaller than the 4.3 percent figure given in Table 2.

United Kingdom, 16 percent in France, 11 percent in Italy, and 7 percent in Germany, and even these limited holdings reflect a home bias in equity choice.<sup>16</sup> The euro surely will promote greater financial integration, and the investment habits of European households are changing visibly already. But will they change quickly enough?

## 7 Conclusion: The Future of the European Central Bank

The ECB is the centerpiece institutional innovation of EMU. In an arrangement unprecedented in history, it will be the common central bank for major sovereign nations that have distinct national traditions. It is already clear that some of these nations harbor different views about the way in which the ECB should function. Such differences lay behind the very public and, in the longer term, probably damaging dispute over the first ECB presidency at the 1998 Brussels summit. If any of the pitfalls I have discussed materialize, the ECB will attract blame, and there will be intense pressure to modify its statutory independence, formally or informally.

Even though the ECB has no formal monetary role until Stage Three starts, a debacle in setting the “irrevocable” conversion rates will fall at its door, and it will inherit any macroeconomic imbalances accentuated by faulty monetary-policy coordination in the final months of Stage Two. Any systemic credit problems arising in Stage Three will damage the ECB’s prestige, and the stability pact, when it binds, will probably make matters more difficult for the bank. Indeed, whenever the single monetary policy of Stage Three fits badly with the needs of leading EMU members, the ECB will come under intense political fire—more intense than the U.S. Federal Reserve Board would draw in a similar case. The European identity is not yet fully forged; arguably, the very success of European institutions like the ECB will play an integral role in shaping that identity. Europe has therefore taken a gamble in placing monetary unification so far ahead of political unification. If the ECB is weak, the cause of European unification will be fatally impaired.

It could turn out otherwise. Money, as James Tobin has observed, is a language. France seems determined that it be a *lingua franca*, in the literal, Italian, sense. The ongoing Franco-German dispute over “economic government”—code for a significant political influence over monetary policy—will be resolved by events and the voters’ reaction to

<sup>16</sup> See John Tagliabue, “Selling Europe on the Stock Market,” *New York Times*, March 1, 1998, section 3, p. 1. The Italian numbers refer to direct stock ownership only.

them. It is hard to believe that the EMU-11 club of finance ministers will refrain from forceful comment on ECB policy, including, but not limited to, exchange-rate developments. The ECB, in its turn, will surely weigh in on fiscal matters. It is not unthinkable that ongoing policy frictions could transform the ECB's political "interlocutor" into an inquisitor.

Along several key dimensions, Europe is not ready for EMU, and the euro zone's future economic performance and political cohesion are more than usually uncertain. The Europeans' arguments for proceeding nonetheless are two: (1) To prepare completely would be to postpone EMU forever, and (2) EMU economies and institutions will in any case evolve to make the single currency fit all fairly comfortably. The first argument is clearly correct, although some might argue, with Martin Feldstein (1997), that indefinite postponement would be a good thing. The second argument is based on a pure leap of faith. If it is wrong, EMU could come apart or evolve into an institution very different from that which its architects intended.

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