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Federal Reserve Bank of Cleveland

# The Euro (€)

by Ed Stevens

The primary job of the modern central bank is to manufacture money. In January 1999, the new European Central Bank (ECB) began manufacturing a new money—the euro—by taking over the operations of 11 European nations' monetary systems. The symbol for the euro is €, just as \$ is the symbol for the dollar. By 2002, the euro will have replaced entirely the existing currencies of the 11 participating nations.<sup>1</sup>

A common currency is expected to bring important benefits to the participants. Politically, many see it as a powerful next step toward a more complete European political union. Economically, it should raise the standard of living of Europeans over time by eliminating currency conversion costs and facilitating price comparisons, thereby removing the last major barrier to a common European market in goods, services, and finance.

Conversion to a new currency is a prodigious technical feat: Every type font, schoolbook, cash register, price tag, and advertising display requires some alteration; so do the mental arithmetic of hundreds of millions of people and the software of computers around the world. Bookkeeping, pricing, bank accounts, and payments in each of the 11 nations will employ both the old national currency and the euro for a three-year transition period.<sup>2</sup> After that, everything is to be denominated in the euro, including ECB coins and notes, although each national central bank (NCB) may include a national identifier on the euro notes it issues.<sup>3</sup>

This *Commentary* outlines ECB institutions and operations, comparing them to those of the Federal Reserve where instructive, and provides a brief introduction to some of the political economy issues facing the new central banking arrangement. Merging the currencies of independent nations is a rare political event. In this case, the merger involves both short- and long-term costs. Both the politics and the economics have provoked lively debate about how successful and durable this new venture will be.

## ■ The Institution<sup>4</sup>

The ECB is the centerpiece of the European System of Central Banks (ESCB), which includes the central banks of the 15 signatories to the treaty that established the European Community. Four of the 15 will not participate in manufacturing euros, at least initially. Denmark, Sweden, and the United Kingdom are holding off, while Greece has yet to meet the initial economic criteria for participation. The 11 participating NCBs will continue to exist, performing the functions—payment system, fiscal agent, and regulation/supervision—for which they already were responsible within their respective countries. The difference is that they now engage in monetary policy operations only when and as instructed by the ECB.

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Monetary policy decisions are made by the Governing Council, which includes the governors of the participating NCBs plus the six-member ECB Executive Board appointed by the heads of state of the member nations.<sup>5</sup> Noteworthy features of ECB monetary policy operations are the independence of its Governing Council from European Union (EU) institutions and from the governments of the participating nations, its method of implementing monetary policy, and the narrow focus of its role in the financial system.

The statutory objective of the central bank is “to maintain price stability. Without prejudice to [that] objective [to] support the general economic policies in the Community...in accordance with free competition, favoring an efficient allocation of resources.” (Protocol, Article 2). Independence from government—analogue to the status of the Federal Reserve System within the U.S. government—has come to be regarded as crucial to ensuring the credibility of a monetary policy regime consistent with price stability. Thus, “neither the ECB, nor a national central bank, nor any member of their decision-making bodies shall seek or take instructions from Community institutions or bodies, from any government of a Member State or from any other body. The Community institutions and bodies and the governments of the Member States undertake to respect this principle and not to seek to influence the members of the decision-making bodies of the ECB or of the national central banks in the performance of their tasks” (Protocol, Article 7). Moreover, the ECB and NCBs may not purchase securities directly from, or grant credit or overdrafts to, any “community institutions or bodies, central governments, regional, local, or other public authorities, other bodies governed by public law, or public undertakings of Member States” (Protocol, Article 21).

A central bank manufactures money by purchasing securities or making loans with its monetary liabilities. Changes in the interest rate at which these policy transactions take place have a fundamental influence on all other market rates of interest. In the U.S., for example, the Federal Open Market Committee conducts most policy operations in the secondary market for U.S. government securities. These transactions are designed to control the federal funds rate, the price of unsecured overnight interbank loans. The ECB, however, has no obvious counterpart to the U.S. government securities market in which to conduct policy operations, lacking a deep market for securities issued by the EU itself. Consequently, the ECB will operate in markets for the variety of government and private debt (and occasional equity) instruments it approves.<sup>6,7</sup>

The short-term interest rate at which the ECB buys (or sells) approved assets (3 percent initially) is not its only means of influencing market interest rates. Two standing facilities offer NCB deposits and loans at ECB-determined interest rates. Credit institutions receive the ECB-determined overnight deposit rate (2 percent) on the required reserve and voluntary deposits held at their NCB. This acts as a floor under overnight market loan rates, for lenders are unlikely to lend at a lower rate so long as they (or their banks) can earn the official rate. Similarly, credit institutions can borrow unlimited amounts from their NCBs on the security of assets approved for open market operations, but at a penalty rate (4.5 percent). This rate acts as the ceiling of the range in which the overnight interest rate can move. Borrowers are unlikely to pay more as long as competing lenders with collateral can borrow from the ECB at this rate.<sup>8</sup>

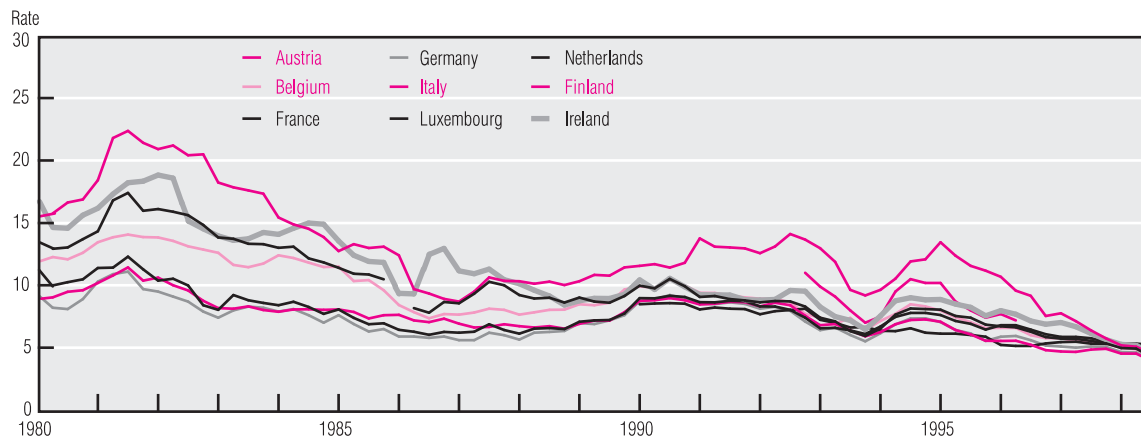
## ■ Potential Benefits of the Common Currency

Participating nations expect to realize both political and economic gains from adopting the euro. Politically, for many Europeans the new central bank represents another building block in a pan-European nation. Undoubtedly, some place such a high value on the political benefits of a united Europe that they would overlook any potential costs of integration.

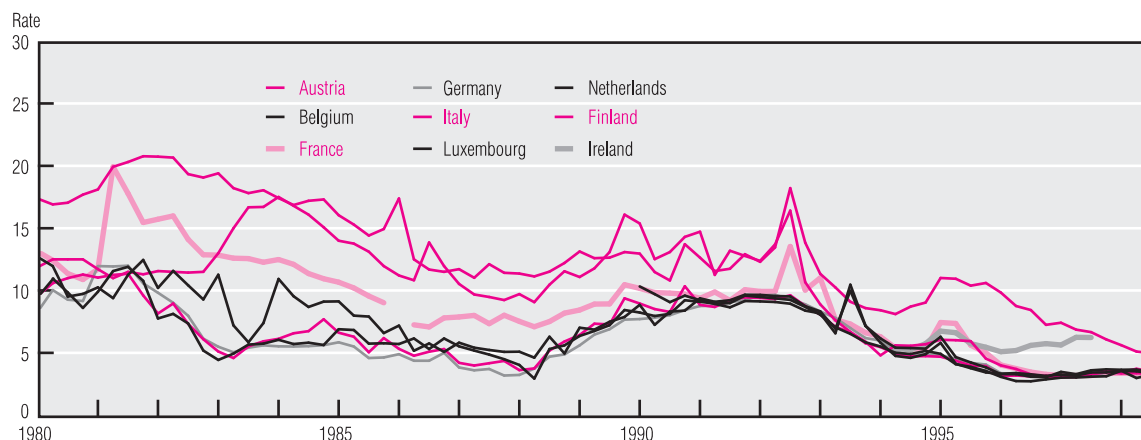
Economic benefits are just as important, but difficult to quantify. First, the price discovery process will be more efficient because a single currency allows direct comparison of the stated prices of a product everywhere in the euro area. Second, a reduction in transaction costs can be expected for the enormous volume of international (yet intra-euro) trade. Uncertainty about exchange rates for intra-euro trade has been eliminated, along with the costs of hedging exchange rate risk in currency forward and futures markets. Also, currency conversion costs have been eliminated. The cost of maintaining transaction balances should decline as agents substitute a single, pooled euro account for multiple account balances formerly maintained in multiple currencies. Offsetting transactions can replace balances as a source of funds, allowing agents to economize on cash balances.

Further benefits of the common currency can be expected indirectly in response to reduced transaction costs. Operating in a single currency will eliminate the major remaining barrier to the free flow of capital across the borders of the 11 nations. Already there are indications of impending cross-border consolidations of national securities exchanges and credit institutions. The resulting standardization of financial institutions and practices may eliminate costs now hidden in accepted differences among national financial practices. Similarly, increased activity in cross-border mergers and acquisitions already suggests that economies of scale and scope from more extensive cross-border operations are expected to reduce costs and improve economic well-being.

**FIGURE 1 GOVERNMENT BOND YIELDS**



**FIGURE 2 MONEY MARKET RATES**



SOURCE: International Monetary Fund.

**■ Potential Costs**

Converting from 11 nations’ monetary systems to the euro requires substantial one-time conversion costs. Planning for the new institution began in July 1990. Barriers to the free movement of capital within the EU were removed in Stage One of the Economic and Monetary Union (EMU). In 1994, Stage Two saw the formation of the European Monetary Institute (EMI) that worked out details of the new central bank’s operations. Moreover, “convergence criteria” were imposed at this stage. Each nation had to meet these criteria for admission to the ESCB, so that the 11 would come

together in broadly similar economic circumstances. In this way, the impact of the initial euro monetary policy relative to the preceding policies of the national central banks would be constrained.<sup>9</sup>

Convergence already has registered in long-term interest rates (figure 1). Yield spreads among the 11 euro nations for 10-year maturity securities were as great as 600 basis points in December 1995. They had converged to spreads of less than 100 basis points by the end of 1997 and to 50 basis points by the end of September 1998. Already, securities market services have developed euro-wide bond yield indexes to replace currency-specific indexes.

Until quite recently, convergence was less visible at the short end of the yield curve (figure 2). Commentators had pointed to the difficult choice the ECB would have to make in January, as evidenced by wide differences among money market rates in the 11 euro nations. Setting a low policy interest rate would accommodate the slow economic expansions taking place in low-inflation countries like Germany, France, and Belgium. Alternatively, so the story went, setting a high rate would seem more appropriate for countries with higher inflation rates like Italy and Ireland, where demand was being restrained by

**TABLE 1 DISTRIBUTION OF INFLATION RATES**

Europe		United States	
Region	Rate	Region (urban only)	Rate
France	0.6		
Austria	0.7		
Germany	0.7		
Belgium	1.0		
Luxembourg	1.0	South	1.0
Finland	1.1	New England	1.1
<b>EU-11 average</b>	<b>1.2</b>	<b>National average</b>	<b>1.2</b>
Netherlands	1.4	Midwest	1.4
Spain	2.1	West	1.5
Italy	2.2		
Portugal	2.2		
Ireland	3.0		

NOTE: Data are for the year ending September 1998.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; and Eurostat.

high central bank policy rates. Somehow, the ECB had to define a single policy that could not possibly suit each of the 11 national economies.

The purported difficulty of making this choice was exaggerated, though, for two reasons: First, the sheer size of the German and French economies relative to the other nine members meant that initial ECB policy would have to mirror that of these two large nations.<sup>10</sup> Second, a successful monetary policy cannot be expected to maintain identical price levels in every town, city, and nation within a single currency area. Almost certainly, prices will rise more rapidly in some areas and less rapidly in other areas depending on the composition of the industrial base and demand for products. The task of the European Central Bank is to achieve an objective for the measured inflation rate for the entire 11-nation economy, a rate that represents a weighted average of price experience across many markets.

This kind of averaging is no different than it is in the single dollar-currency area of the United States. The Federal Reserve seeks to maintain non-inflationary growth of the nation's economy using open market operations to control the federal funds rate. Nationwide arbitrage maintains the funds rate at a uniform level throughout the nation. Within this policy milieu, the measured inflation rate in U.S. cities was 1.2 percent over the past year. For individual cities, however, inflation rates ranged from 1.0 percent in the South to 1.5 percent in the West (table 1). That is, a single monetary policy was associated with results for specific products and for the cost of living in specific areas that were distributed around a national average. Recent inflation data for the euro area show an average rate identical to that of U.S. cities; however, the distribution of national rates is almost five times wider than the distribution around the U.S. city average.

Introducing a common monetary policy imposes an ongoing economic cost on each participating nation. Until now, individual NCBs could set overnight policy interest rates different from—and to some extent independently of—one another. Those that were experiencing cyclical softness in economic

conditions (like Germany) relative to others that were not (like Ireland) could ease monetary policy. Faster money growth and lower interest rates could stimulate internal and external demand to offset whatever asymmetric economic shock was depressing conditions in one country relative to the other. Henceforward, however, participating nations cannot use monetary policy to offset such independent, asymmetric economic shocks.

### ■ Durability of Common Monetary Policy

Forsaking independent monetary policy may represent the biggest continuing cost of the euro, but participating national governments thoroughly understand this fact. Those national governments apparently believe the efficiency benefits of a single currency, as well as the greater credibility of the ECB's commitment to price stability, will more than offset this potential cost. However, one of the major uncertainties about the durability and success of the ECB is participants' behavior once this cost becomes real. That is, when the going gets tough, will a participating nation attempt to withdraw from the ECB or use its political power to shift ECB monetary policy toward its own macroeconomic interests at the expense of euro area-wide price stability?<sup>11</sup>

The degree of convergence of long-term interest rates among the 11 participating nations suggests that this is not a pervasive concern (figure 1). After all, a common monetary policy does not leave individual euro nations powerless to ameliorate economic shocks. Adjustments in fiscal policies—the taxing, transfer, and spending programs of the various nations—allow governments to react independently to cushion shocks, within certain constraints. On the other hand, the ability to conduct independent fiscal policy within the common currency could bring with it an incentive for a nation's government to overspend or undertax and run out-sized deficits. No inflation premium need appear as long as the ECB were expected to maintain price stability in any case.

Several factors could discourage this. First, financial markets themselves can discourage excessive debt by requiring quality or risk premiums on securities issued by nations whose ability to service debt is less assured than other nations. This may explain the remaining yield spreads among the long-term debt issues shown in figure 1. Moreover, EU nations have adopted the Stability and Growth Pact, by which they “undertake to comply with the medium-term budgetary objective of positions close to balance or in surplus” and to “correct excessive deficits as quickly as possible after their emergence.”<sup>12</sup> Failing such appropriate corrective action, the Council of the EU has put a mechanism in place for enforcement by a series of monetary and political penalties. Further, the Treaty Establishing the European Community includes a mechanism for nations to provide fiscal assistance to one another. All of these factors offer venues for political maneuvering to enforce budget discipline without necessarily debasing the monetary policy deliberations of the Governing Council.

## ■ Conclusion

The creation of the euro represents a determined effort by 11 nations to revolutionize European monetary and financial systems. The diversity of the national economies suggests that the ECB may experience some strain in substituting a single monetary policy of the new currency for the independent monetary policies of the nations involved. The apparent loss of national monetary policy independence, however, should be offset by gains from lower transaction costs in intra-European trade and finance, as well as a freer flow of capital among the 11 nations that is likely to enrich all their citizens.

## ■ Footnotes

1. The currencies and monetary operations being merged are the Austrian schilling, Belgian/Luxembourg franc, Dutch guilder, Finnish markka, French franc, German mark, Irish pound, Italian lira, Portuguese escuda, and Spanish peseta.

2. Interbank payments among the 11 nations, however, converted to the euro at the opening of business in 1999. The 10 existing currencies were linked to each other at fixed exchange rates announced in May 1998. The value of the euro in other currencies was determined when foreign exchange trading began in 1999.

3. The 12 Federal Reserve Banks have done this, too. Except for the most recently redesigned \$100, \$50, and \$20 bills, each piece of U.S. currency bears a seal with the name and symbol of the issuing Reserve Bank.

4. For a basic description of ECB monetary policy institutions, see *The Single Monetary Policy in Stage Three, General Documentation on ESCB Monetary Policy Instruments and Procedures*. Frankfurt: European Central Bank, September 1998. European Union legislation governing the ESCB can be found in Title VI, Chapter 2, Protocol 3 of the treaty, available at <http://www2.echo.lu/legal/en/treaties/ec/ectreaty.html>.

5. The Executive Council is an additional, non-decision-making official body, in which the Governing Council is joined by the heads of the ESCB central banks that are not participating in the ECB.

6. The seigniorage (profit) on manufacturing money can be significant, as a popular brand like the dollar illustrates. The Federal Reserve Banks paid \$20.8 billion in surplus earnings to the U.S. Treasury in 1997, mostly from the earnings on assets financed by issuing \$494 billion in non-interest-bearing paper currency and required and excess financial institution deposits. In the case of the ECB, credit institutions' required and excess deposit balances held at NCBs will bear interest, eliminating some of the potential profit margin. However, non-interest-bearing currency can be expected to finance a large portion of ECB assets.

The danger of seigniorage lies in its potential incentive for over-issue and consequent inflation. No ECB participant has a strong direct profit incentive to seek over-issue. The participating NCBs pool and distribute the earnings of their monetary operations among themselves in proportion to their holdings of capital in the ECB (Protocol, Article 32).

7. For a complete list of securities approved for ECB monetary operations, see <http://www.ecb.int/>.

8. As a transitional measure, the Governing Council set the initial marginal lending and deposit rates at 3.25 percent and 2.75 percent, respectively, for the period January 4–21, 1999.

9. The principal convergence criteria for joining the ESCB are that national central banks be independent of their governments, to avoid being used as sources of free deficit financing, and have maintained low inflation rates to demonstrate their prudence in using that independence. National governments must be living within limits on deficit spending and outstanding debt, to instill confidence in their creditworthiness, and must have maintained their exchange rate with other euro nations within established bounds, to demonstrate the credibility of their policies.

10. This was pointed out by Wim Duisenberg, president of the ECB: “[B]ecause the economic weighting of France and Germany in the euro zone is high, it would be appropriate for interest rates to converge to a low point” (*Irish Times*, June 30, 1998).

11. The relevant EU treaties contain no provision for the withdrawal of a participating nation from the euro operation.

12. *Resolution of the European Council on the Stability and Growth Pact*, Amsterdam, June 17, 1997. Available at <http://www.euro-emu.co.uk/offdocs/amsterdam1.shtml>.

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