American Economic Policy
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Exchange Rate Policy: The Dollar and the Euro

I. How does the EMU affect US economic policy?

Under European Monetary Union (EMU), eleven of the fifteen EU members have agreed to use a single currency—the euro—and to conduct a common monetary policy through the European Central Bank (ECB). Given the importance of the euro area (almost 300 million people with a GDP roughly three quarters of the US level) this development presents some challenges for US economic policy making.

Possible impacts:

- Will the euro challenge role of the dollar as the leading international currency?[1] One issue receiving attention is the potential loss of seigniorage on foreign holdings of dollars. When foreign governments and residents hold dollars it is as if the US receives an interest free loan. Foreign holdings of dollars are estimated to be about $250 billion (roughly 60 percent of the total US currency outstanding). At an interest rate of 5 percent, this implies an interest saving of $12.5 billion, which is only about 0.15 percent of GDP.
- The official Treasury view: What's good for Europe is good for America . . . if greater integration leads to faster European growth, this will make Europe a stronger trading partner and will benefit the US. Question: Will the euro help or hinder structural reform?
- International influence. Will a more unified Europe exert more influence on international affairs, thereby threatening US dominance? (E.g., influence over IMF policies or over policies toward international conflicts.)
- Tensions within Europe. Will greater integration reduce inter-European tensions as countries develop shared interests? Or will disputes over economic policy actually increase tensions within Europe?

II. How has the euro done over its first year?

- Judged by the exchange rate against the dollar (or the Yen)—not very well. (See chart)

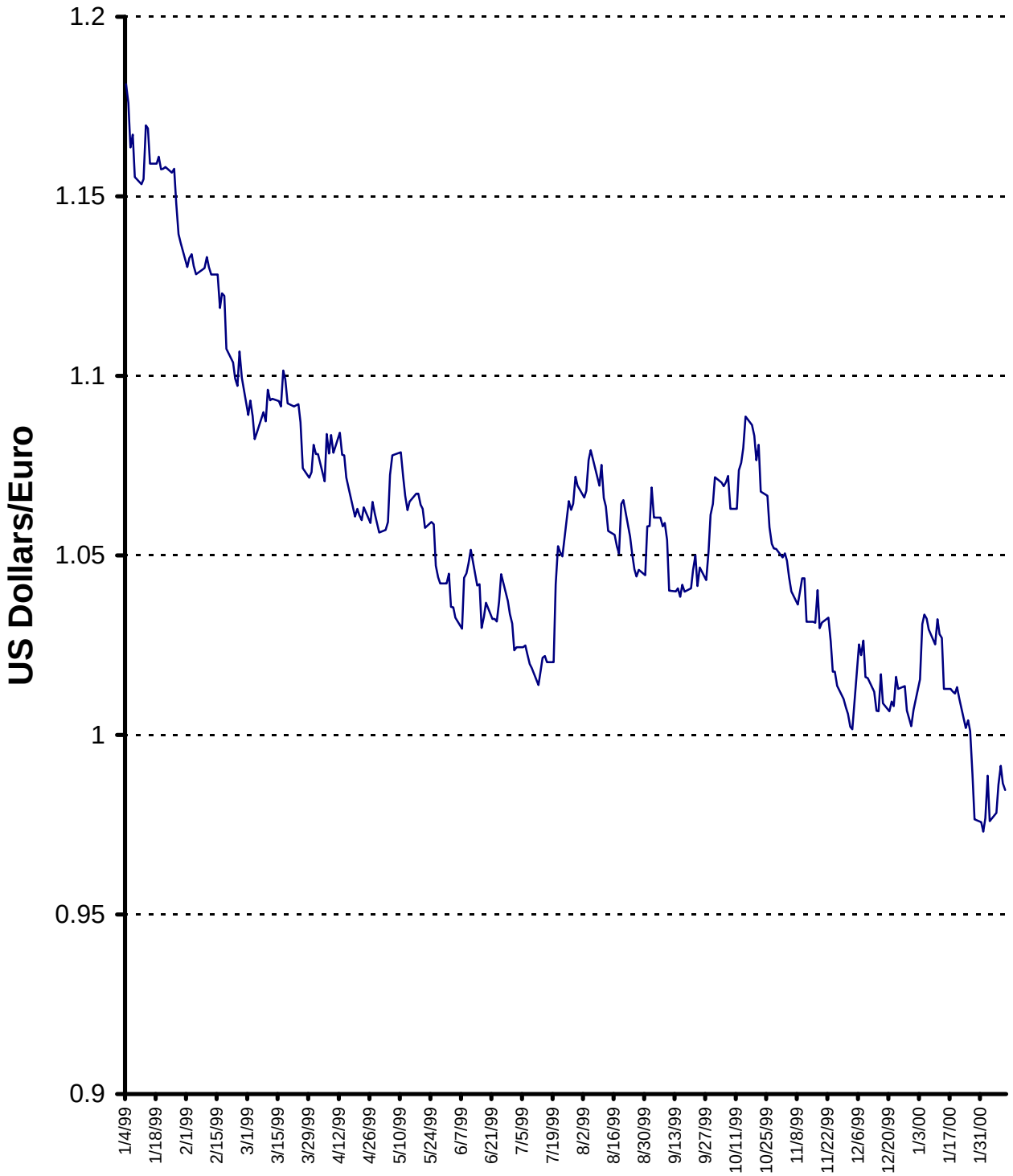
  Possible reasons:

  -Relative strength of the US economy

  -Relative interest rates in the US and Europe

[1] Just as currency serves various functions within an economy—medium of exchange, store of value and unit of account—an international currency serves various functions in the international economy. At present, the dollar is the leading currency for holding central bank reserves, invoicing imports and exports, public holdings of non-domestic cash, and for pegging minor currencies.

The Dollar-Euro Exchange Rate: Dollars per Euro
January 4, 1999 to February 11, 2000



-Net capital outflow from Europe as investors doubt commitment to structural reform

-Doubts about the inflation fighting credentials of the ECB

- But the short-term movement of the exchange rate is too narrow a way to judge the early success of the new monetary regime in Europe. A much longer period of time will be needed to properly judge the performance of the new regime. However, some of the early indications are promising:

  -Exchange rate depreciation has provided a timely boost to demand in Europe. The exchange rate movement has been countercyclical.

  -The ECB is building its anti inflation credentials with wage setters and the financial markets. Its recent willingness to raise short-term interest rates despite sluggish growth is a telling indicator.

  -There are signs that restructuring activity is picking up in Europe and the market for euro-denominated bonds has got off to a fast start.

III. The Road to the Euro

Some milestones:

- 1979: Formation of the European Monetary System (EMS) . . . essentially a system whereby the other members pegged their currencies to the German DM (within narrow bands, $\pm 2.25\%$) . . . this allowed the other members a free ride on Germany's anti inflation reputation, allowing (at least in theory) for less costly disinflations.
- 1989: Delors report on economic and monetary union (laid out a staged process to monetary union).
- 1991: Maastricht treaty (Treaty on European Union) negotiated

  A number of qualifying conditions for being part of the monetary union were laid down

  1. Budget deficit < 3%
  2. Debt to GDP ratio < 60%
  3. Inflation rate within 1.5 percent of the average of the three lowest inflation countries
  4. Long-term interest rates within 2 percent of the average of the three lowest inflation countries
  5. Exchange rate stability (observe the normal ERM exchange rate bands over the previous two years)
- 1992 and 1993: Exchange rate crisis within the ERM. The British pound and the Italian lire were forced to abandon the system under pressure from speculators. Ireland, Portugal and Spain were forced to realign their central rates. Finally, as the French franc came under speculative attack, the exchange rate bands were widened to $\pm 15\%$
- 1994: European Monetary Institute (forerunner to the ECB) created to oversee preparations for monetary union
- 1995: Euro chosen as the name of the single currency
- Summer 1998: EMU members chosen (Of the 15 EU members, 11 qualified and chose to join; Denmark and the UK had formal opt-outs; Sweden did not have a

formal opt-out but chose not to join the ERM and so did not qualify; and Greece did not qualify.)

- January 1999: The Euro is launched . . . exchange rates between the euro members are irrevocably fixed
- July 2002: National coins and bills will be withdrawn

IV. Is the Euro a Good Idea? Some Economics

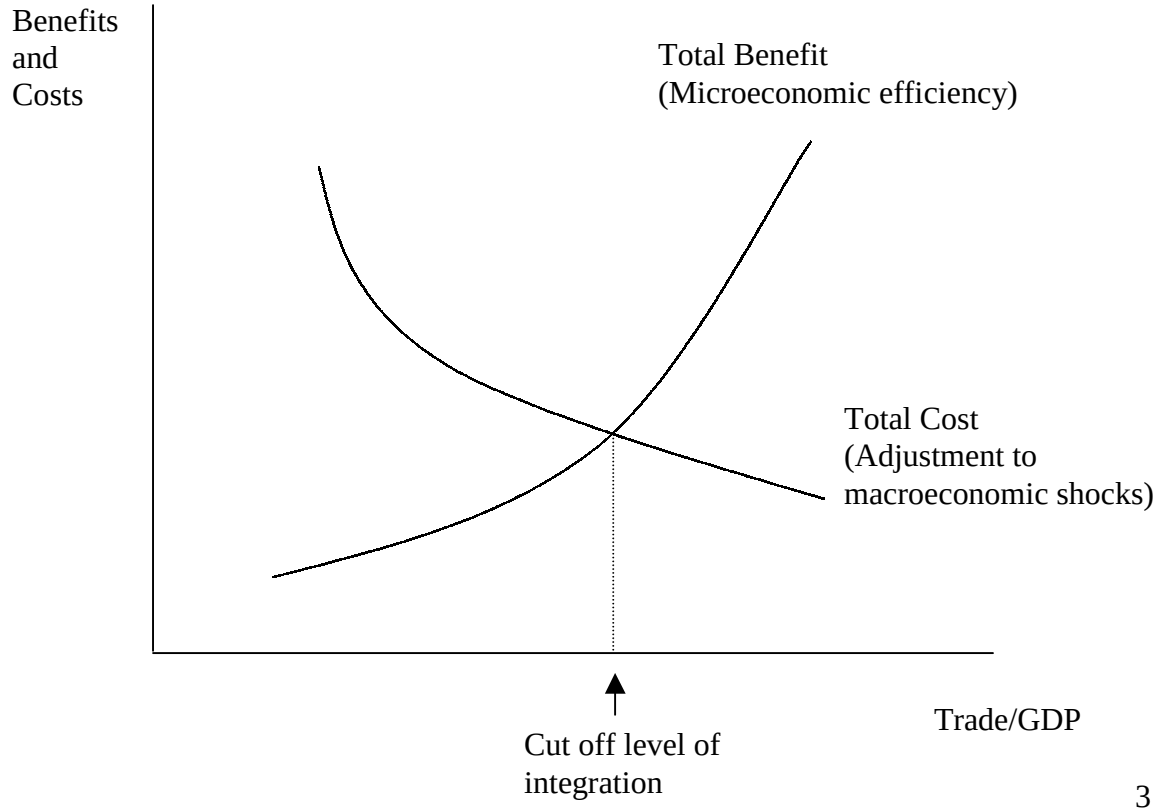
A. Optimal currency areas

Do the euro area countries comprise an optimum currency area? Does the United states comprise an optimum currency area?

Microeconomic efficiency gains vs. loss of macroeconomic flexibility

Important issues:

1. Prevalence of "asymmetric shocks" (high in Europe and in the US)
2. Labor market flexibility
   (i) Labor mobility (low in Europe, higher in US)
   (ii) Real wage flexibility (low in Europe, higher in US)
3. Fiscal adjustment
   (i) Transfers from the central government (low in Europe, higher in US)
   (ii) Europe's *Growth and Stability Pact*. This limits budget deficits to 3 percent of GDP unless GDP shrinks by more than 2 percent. This limits the use of automatic fiscal stabilizers to counteract asymmetric shocks.



B. Inflation Fighting Credibility

- The German central bank, which anchored the EMS, had a strong reputation as an inflation fighter. The ECB does not have a proven track record.
- The ECB has been given a great deal of independence *and* the single responsibility of achieving price stability. To meet this responsibility, the ECB has set itself a target range of 0 to 2 percent inflation.

[Time Permitting

To see how institutions can affect the inflation rate in the economy, consider the following simple model.

(1) The economy has a standard *expectations augmented Phillips curve*,

$$\pi = \pi^e + \beta\left(u^* - u\right)$$

$$\Rightarrow \quad u = u^* - \frac{1}{\beta}\left(\pi - \pi^e\right)$$

Thus the policy maker can lower the unemployment rate by generating surprise inflation.

(2) The policy maker dislikes both inflation and unemployment. These dislikes are captured by the *loss function*,

$$Loss = (u - ku^*)^2 + \theta(\pi - \pi^T)^2$$

k is a parameter between zero and one. When *k* is less than one the policy maker desires an unemployment rate that is less than the NAIRU.

The θ parameter captures the policy maker's relative dislike of inflation.

π^T is the policy maker's target for inflation.

(3) The policy maker can choose the inflation rate (say by controlling the money supply). He or she does so to minimize the loss from inflation and unemployment. To find the optimal inflation rate we substitute for *u* (using the expectations augmented Phillips curve) in the loss function, and then minimize the function by an appropriate choice of the inflation rate. The resulting optimal inflation rate is,

$$\bar{\pi} = \left(\frac{\beta}{1+\theta\beta^2}\right)u^* + \left(\frac{\beta^2\theta}{1+\theta\beta^2}\right)\pi^T + \left(\frac{1}{1+\theta\beta^2}\right)\pi^e$$

(4) When forming inflation expectations, wage and price setters can anticipate what the policy maker will do, so that π^e will be equal to $\bar{\pi}$. A policy maker's promise to have a lower inflation rate will not be credible. We thus end up with a simple expression for the economy's inflation rate.

$$\bar{\pi} = \pi^T + \frac{1}{\theta\beta}(1-k)u^*$$

Inflation will be lower:

- the lower the target inflation rate
- the more the policy maker dislikes inflation in excess of the target
- the steeper is the Philips curve
- the lower is the NAIRU

Putting the control of inflation in the hands of a central banker with a strong aversion to inflation, or strong institutional incentives to pursue low inflation, can produce a credible commitment to a low inflation rate. The expression also shows how the importance of having an inflation-averse central banker increases with the NAIRU.[2]]

[2]The NAIRU is estimated to be about 10 percent in the EU.