

EMU: Why and How It Might Happen

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One of the more striking events of recent international monetary history is the adoption of a single currency, the euro, by member states of the European Union. French economist Charles Wyplosz traces this complex process from the 1950s to the completion of the Economic and Monetary Union (EMU). He describes the economic and political sources of the movement to a single currency. He also analyzes some of the problems that have arisen along the way and others that may develop as EMU continues to move forward.

The adoption of a single currency has long been a Holy Grail for Europe. Since the late 1950s, various plans had been devised and shelved.... But in a few sharp steps between 1988 and 1991, bewildered Europeans saw their governments agree to what is now known as the Maastricht Treaty.

The story begins auspiciously in 1986. The European Community emerges from a decade-long period of little institutional progress, high inflation and rising unemployment following the oil shocks. This is the year when three new countries (Greece, Spain and Portugal) join the European Community and when the Single European Act (frequently dubbed “1992,” the year when it came into effect) is adopted as an extension of the founding Treaty of Rome. The aim of the Single Act is to plug the loopholes which limited the full mobility of people, goods and capital within Europe. In the process, all restrictions to capital movements were eliminated.

This last innocuous-seeming step made a move to monetary union unavoidable. The reason is a straightforward implication of the Mundell-Fleming textbook model of an open economy, known in Europe as the “impossible triloggy” principle. This principle asserts that only two of the three following features are mutually compatible: full capital mobility, independence of monetary policy, and a fixed exchange rate. The problem arises because, under full capital mobility, a nation’s domestic interest rate is tied to the world interest rate (at least for a country too small to influence worldwide financial conditions). More precisely, any difference between the domestic and world interest rate is equal to the expected rate of depreciation of the exchange rate; that is, if interest rates are 5 percent in the domestic market and 3 percent in global markets, this must reflect that global currency markets expect the currency to

depreciate by 2 percent this year. This is known as the interest parity condition: it implies that integrated financial markets equalize expected asset returns, and so assets denominated in a currency expected to depreciate must offer an exactly compensating higher yield.

A country that wants to conduct an independent monetary policy, raising or lowering interest rates for the purpose of its domestic economy, must allow its exchange rate to fluctuate in the market. Conversely, a country confronted with full capital mobility that wants to fix its exchange rate must set its domestic interest rate to be exactly equal to the rate in the country to which it pegs its currency; since monetary policy is now determined abroad, the country has effectively lost monetary policy independence. The alternative option of letting exchange rates float was never acceptable to Europeans. The perception is that markets are too integrated to allow for sizable relative price changes. The exchange rate and trade wars from before World War II are still remembered as an example of a jack that must absolutely be kept in the box.

By the time it was decided to free capital flows, the European Monetary System (EMS) had been in place for nearly ten years. Most European Community members had agreed in early 1979 to set up a system of fixed bilateral exchange rates with fluctuation bands of ± 2.25 percent around the declared central parity (± 6 percent for Italy and, briefly, the United Kingdom). Member central banks were committed to intervene jointly to defend the parities, in principle with no limit. When it was felt that existing parities had to be changed, the decision had to be taken by consensus. By the late 1980s, the EMS was commonly hailed as a major success, credited with the relative stability of intra-European real exchange rates during the turbulent post-Bretton Woods period....

Perhaps blinded by the success of the EMS, leading European policymakers did not perceive that the freeing of capital flows meant the end of monetary policy independence in all but one EMS country. By the late 1980s it had become obvious that the Bundesbank, Germany's central bank, was setting monetary policy for Europe as a whole. One reason for this evolution was relative economic size (further increased by unification following the fall of the Berlin Wall in late 1989). In addition, the Bundesbank had acquired a strong reputation for fighting inflation and keeping its currency strong. For countries where inflation was the number one target, adopting tough monetary conditions under the Bundesbank leadership was in fact welcomed. Small countries, like the Netherlands, had already given up monetary independence. Among the larger ones, the United Kingdom was outside the fixed exchange rate mechanism and therefore could retain monetary policy independence.

However, other larger European nations like France, Italy, and Spain, gradually realized that they had lost control of their domestic monetary policy. They concluded that the only way through which they could regain some influence over their monetary policies was to create a broader European monetary institution which would supersede the Bundesbank, and in which they would have a voice. Naturally, since Germany was being asked to sacrifice one of its most valued institutions for the sake of Europe, it was going to ask a lot in return. In particular, Germany was bound to require that this new European monetary institution offer strong guarantees

of price stability. From the very beginning, Europe's future currency would have to be as strong as the deutsche mark. This would mean explicit institutional safeguards and exacting startup conditions. The negotiations leading to the Maastricht Treaty would bear the birthmark of this situation: what Germany asks, Germany gets, provided that it gives up the Bundesbank.

THE MAASTRICHT TREATY

The Maastricht Treaty updates and incorporates the 1957 Treaty of Rome, the founding act of the European Community, and incorporates the Single European Act implemented in 1992 (free movement of goods, people, and capital). The treaty has been formally ratified by all member countries. With the Maastricht Treaty, Europe ceases to be called the European Economic Community and becomes instead the European Union or EU, which involves both economic and political union. The economic component of the treaty mainly involves the adoption of a single currency. The political component has been left rather vague, hinting at an evolution towards joint defense and foreign affairs....

IS EUROPE AN OPTIMAL CURRENCY AREA?

The decision to adopt a single currency is the outcome of constrained optimization. The constraint is the impossible trilemma: given the freedom of capital flows, the choice is between freely floating exchange rates and monetary union. The assessment is that monetary union dominates a free float. This assessment is based on the experience with floating exchange rates since 1973: wide and long-lasting fluctuations (20 to 50 percent over three to five years) are just not compatible with fully open markets and the complete removal of border posts. While that assessment is open to debate (but seldom challenged so far), the discussion on the intrinsic desirability of the monetary union is moot as long as it ignores the constraint.

Yet, it is probably unavoidable that the question be asked whether EMU is welfare-increasing *per se*....

The (unconstrained) optimum currency area literature establishes the conditions under which two or more countries could share the same currency without seriously adverse consequences. It assumes that the nominal exchange rate has real effects; otherwise, there is no cost in a nation's giving up its own currency. In particular, the exchange rate is a policy instrument which can affect relative prices such as the real wage paid by producers, the ratio of traded to nontraded goods prices, or the ratio of export to import goods prices. As one example of where this tool could be useful, consider the case where some exogenous shock requires that relative domestic to foreign prices change. Such an adjustment can plausibly be made easier and faster through the exchange rate, rather than by changing nominal prices throughout the economy or through migration of the factors of production from one sector to another.

The three criteria proposed in the literature are those features which make adjustment through exchange rates less effective or less compelling. One criterion is openness to mutual trade; greater openness means that most prices are being determined on markets at the area level, which reduces the ability of the exchange rate to alter significant relative prices. A second criterion is diversification of individual economies; a more diversified economy is less likely to suffer country-specific shocks, which makes its own exchange rate a less useful tool. Finally, the third criterion is mobility of inputs across the area, especially labor. Greater mobility allows an economy to deal with asymmetric shocks through migration, lessening the need for adjustment through exchange rate changes.

On the openness criterion, Europe scores rather well. Measuring openness by looking at exports as a share of GDP, the United States and Japan score 11 percent and 9 percent, respectively. Larger European economies, like Germany, Italy, France, and the United Kingdom, all have export/GDP ratios above 20 percent, and smaller EU economies, like Ireland and Belgium, have export/GDP ratios above 70 percent. It makes sense that the smallest European countries are traditionally warm supporters of monetary union. Because of their extreme openness to foreign trade, relative prices in their economy are set on world markets, and the exchange rate is a less useful policy tool.

As to the second criterion, European economies are found usually to be well-diversified. Countries with important endowments in natural resources, like the Netherlands and the United Kingdom with their oil and gas resources, stand apart, but only slightly so. A wide body of research looks at the risk of country-specific (asymmetric) shocks. One set of studies investigates co-movements of key macroeconomic variables like GDP, unemployment, inflation, or the current account balance across European countries. Other studies compare shocks across regions with shocks across countries. The general message is that there is more co-movement in macroeconomic variables among European countries than between individual European countries and the United States or Japan. Further studies attempt to separate out domestic from external shocks, and demand from supply shocks. The underlying argument is that demand shocks are at least partly due to divergence in monetary policy which will be less prevalent in EMU—so attention should focus on supply shocks....

Work on the labor mobility criterion clearly suggests that Europe is not an optimum currency area.... Two caveats are in order, however. First, the evidence is that the lack of labor mobility is not a national but a regional phenomenon in Europe. It affects regions within existing nations of Europe, and there is no reason why monetary union would make things worse. Second, both the occurrence of shocks and labor mobility may change as economic integration proceeds.... It then comes as no surprise that the United States, which has shared the same currency for a century, appears better suited for a single currency than does Europe.

In the end, we need not be impressed by the result that Europe is not as much an (unconstrained) optimum currency area as the United States. The choice is not between EMU and heaven. It is between EMU and freely-floating exchange rates, with possibly poorly coordinated monetary policies, within an area gradually becoming as tightly integrated as the United States. Would the United States have

passed the currency area tests a century ago? And had it failed, all things considered, was it a mistake for the country to adopt a single currency?

CONVERGENCE: WILL TOUGH CRITERIA BACKFIRE?

One striking feature of the Maastricht Treaty is that it anticipates a long eight-year phase from the passage of the treaty in 1991 to the deadline for a single currency by 1999. This long phase-in was the result of a conflict between two competing views.

One view argued that monetary union would be sustainable only if those countries that joined had first achieved a low level of inflation and had resolved fiscal imbalances. This position is commonly referred to as the “economist’s view,” although it does not seem to have been fully articulated in the professional literature. However, it was popular among the monetary authorities; for example, the Bundesbank championed it under the name of “coronation approach,” seeing the shift to monetary union as the last step of successful efforts to eradicate inflationary behavior. Economic and monetary union was to be born in a land dedicated to a culture of price stability.

The opposing view, generally referred to as the “monetarists’ view,” had the favor of most academic economists. Their argument was that the creation of a new currency with its own independent central bank would radically alter the wage and price mechanisms, inflation trends, and the incentives of national governments when they decide on fiscal policies. In this view,...pre-monetary union behavior of both the public and private sectors is a bad predictor of their behavior once the single central bank is in place. Instead, what is needed in the monetarist view are solid institutions, chiefly central bank independence. Other convergence criteria create pain with no assured gain.

Predictably, the “economist” view favored by central bankers won out over the “monetarist” views of academic economists. It is impossible to say what would have happened if EMU had started fairly promptly after ratification of the Maastricht Treaty in 1991. However, what is known is that the period dedicated to convergence has been especially agitated. Even before the Maastricht Treaty could be ratified, a series of exchange rate crises forced Italy and the United Kingdom out of the EMS....

Of the criteria set in Maastricht, those mandating inflation convergence have proven relatively easy to achieve. However, the budgetary criteria—that the debt/GDP must not be above 60 percent nor the deficit/GDP exceed 3 percent—are more challenging.... Why after such a long period of convergence are the budget criteria still some way off? Part of the problem is that the tight monetary policies aimed at meeting the inflation criteria have helped create a slow-growth climate for Europe in the 1990s, with double-digit unemployment rates and no net job creation since the beginning of the decade. While this effort has made it possible to achieve inflation convergence, it has also reduced tax revenues, causing deficits that will not go away and forcing governments to adopt further policies of fiscal contraction. This vicious cycle is jeopardizing monetary union both by making

the fiscal targets more difficult to achieve and by undermining public support. The situation is now a gamble: either a country reaches EMU and is able to relax after having indeed put its fiscal house in order, or it fails entry (or EMU does not take place at all) because excessively restrictive economic policies have deepened the budget deficit.

MONETARY UNION AND FISCAL DISCIPLINE

The inclusion of restrictions on fiscal policy in a treaty which, after all, aims at monetary union, is a source of considerable debate. Before the Maastricht Treaty, most academic analyses emphasized that national fiscal policy would have to become more active to compensate for the loss of the exchange rate instrument. The opposite approach, that monetary union requires fiscal policy restraint, is grounded in the view that excessive budget deficits may lead to eventual monetization of the debt. Monetary authorities were clearly concerned by high debts in some countries, especially in Italy, whose public debt represents some 18 percent of Europe's GDP. They feared that an explicit or implicit lender-of-last-resort function might force the European Central Bank to step in and indirectly monetize a country's public debt if banks faced a financial crisis in the wake of a default. This concern is reflected in the budgetary criteria for EMU membership and in the "excessive deficit" procedures designed to enforce fiscal rectitude once in the monetary union.

While it is difficult to disagree with the view that fiscal policy ought not to jeopardize monetary and financial stability, how to provide the incentives for appropriate fiscal policy is open to debate. The debate implicitly revolves around one's view of the ability of fiscal policy to play a macroeconomic stabilizing role. It also hinges on the ability to define at the time a deficit is enacted that it is "excessive." In principle, the proper answer must be in terms of "sustainability," since by definition, unsustainable debt buildup will eventually have to be reversed. Fiscal policy sustainability is often associated with stationarity of the debt, usually defined as a stable debt/GDP ratio. In fact, the proper definition of sustainability would hold only that the state will remain solvent, a definition that emphasizes the future behavior of fiscal authorities. By emphasizing future behavior, this view of sustainability also implies that information from the past does not reveal what a country will do after it is inside EMU, and that rules for fiscal rectitude must affect future fiscal policies. A workable definition of sustainability along these lines is a tall order.

The Maastricht approach, relying on arbitrary quantitative limits, is quite unsophisticated. The 3 percent annual debt/GDP rule corresponds to what is called the "golden rule" in Germany: governments may only borrow to pay for investment spending, and it turns out that governments usually dedicate about 3 percent of GDP to such spending. Even if one ignores doubts about the 3 percent estimate itself, the rule is naive at best; it ignores socially productive spending like education which is classified as consumption, while it may include ill-designed investment spending. The 60 percent debt/GDP rule was chosen because it was the average of EU countries when the Maastricht Treaty was being negotiated, with not even the pretense of any deeper economic justification.

Yet Europe is not alone in adopting quantitative limits for fiscal policy. How does it work elsewhere, where a unique central bank coexists along with several fiscal authorities? In the United States, for example, states must operate under balanced budgets, borrowing money only by issuing bonds for explicit capital projects. But the comparison must be handled quite carefully. In true federations, the central government is as large as the lower-level governments, and is in charge of macroeconomic stabilization. In Europe, in contrast, the equivalent of a central government is the European Commission, which is not allowed to run deficits and whose spending represents a mere 2 percent of the Europe Union's gross domestic product.

The size and role of a powerful central government matters for two main reasons. First, several studies have shown that in federal states, the center smooths out income fluctuations through redistribution from regions in good economic shape to regions undergoing a recession. This function operates automatically through the federal budget, the result of a combination of welfare support and income taxes. In this setup, it can make sense to limit the stabilization role of sub-central authorities. Second, quantitative fiscal restraints at some levels of government can actually encourage the buildup of debts at other levels.... The problem occurs when fiscally irresponsible lower-level governments refuse to borrow and can bait the federal authorities into rescuing them. In Europe, a central government with powerful redistribution and stabilization authority is not likely within the foreseeable future. Consequently, Europe needs national-level stabilization policies much more than individual U.S. states do, and there is no risk that national governments will conduct irresponsible fiscal policies in an attempt to extract transfers from a penniless center.

Are there less coarse methods than quantitative limits of providing governments with effective incentives against fiscal irresponsibility? One attractive approach would be to rely on financial markets to impose discipline. In a single currency area, interest rates no longer reflect a country's sovereign risk. Instead, they reflect the risk category of borrowers, be they fiscal authorities (a municipality in the United States, a province in Canada, or a government in Europe) or private borrowers. To the extent that markets price risk correctly, the demand for public debt of various governments could act as both a barometer and a constraint. If a country lets its debt grow and there is an enhanced risk of default, markets should react by downgrading their evaluation and by increasing the interest rate at which new debt is being financed, until fiscal authorities see it to be in their best interest to curtail the deficit.

However, history suggests skepticism about the ability of markets to impose discipline in this way. For one, markets tend to throw good money after bad for a time. When markets do react, it is often too late and too violently. They abruptly cut financing, making it impossible for the government to borrow further and bankrupting large bondholders, among them commercial banks and other financial institutions. This leads to a scenario where central banks may feel compelled to monetize (part of) the debt.

This is presumably why the Maastricht Treaty includes a no-bailout clause which explicitly forbids the rescue of one government either by its fellow members or by community institutions, including the European Central Bank. In this way,

fiscal misbehavior becomes a strictly national issue with no union-wide implication and fiscal restraint is unnecessary. Yet Germany has argued that the no-bailout clause cannot be fully credible, that any rule can always be circumvented.

In the end, the explicit fiscal restraints embodied in the excessive deficit procedure can be seen as insurance against a remote risk that European institutions would be compelled to monetize some nation's out-of-control debts. This insurance scheme may turn out to be very costly in terms of the ability to run countercyclical policies.

EMU AND THE REST OF THE WORLD

The potential for the euro to replace the U.S. dollar as the world's premier currency is one of the understated motivations of EMU. In part, the desire is a symbolic one.... In part, it is a hope to reap seigniorage, although U.S. benefits from seigniorage are worth only about 0.2 percent of GDP. The usual criteria for becoming the world's lead currency are measures like size (GDP or the share of world trade). By these measures, the prospects for the euro to challenge the dollar are favorable but not overwhelming. For example, Europe's international trade with non-European nations will not exceed by much Germany's current level of foreign trade—once intra-European trade is netted out. Also, history teaches that it takes time for a reserve currency to change. To overcome its handicap relative to the incumbent U.S. dollar, the euro must discover some absolute advantage.

One potential advantage is likely to be greater price stability. As a currency expected to follow a long-run trend of appreciation, the euro will be a currency that stores value better than the alternatives. This prediction derives from the constitution of the European Central Bank, which makes it more independent and more focused on price stability than the U.S. Federal Reserve. If anything, the constitution is even stricter than that of the Bundesbank, so that Europe's economy will be more stable than Germany's. A counterargument is based on politico-economic considerations. The board of the European Central Bank will be composed of representatives of all member countries. With the one-man, one-vote principle, Germany's weight will be no larger than that of Belgium or Italy. The constituencies of the European Central Bank will not share the German allergy to even moderate inflation. In theory, the outcome may differ from the wishes of the median European voter, and the bias can go in either direction. Ultimately, this counterargument is not fully convincing.

A second potential advantage for the euro could be the depth and cost-efficiency of financial markets. The market for the euro and euro-denominated assets could be the world's largest, depending on whether the city of London shifts to the euro. Yet the location and prominence of markets relies increasingly less on regional considerations and more on the regulatory environment. Europe will have to fight its own heavy-handed approach and powerful lobbies if it wants the euro to become the world's currency.

Thus, the best bet is that, for a long while at least, the dollar's supremacy will remain. Still, the creation of the euro is bound to affect international monetary relations. Will it lead to more or less instability on exchange markets? Two arguments

suggest more instability. First, if the U.S. dollar has been acting as a market leader on exchange rate markets, the shift to a situation of bargaining between more equal partners is likely to create greater volatility. Second, while the fairly open economies of Europe are now keenly interested in stabilizing world currencies, a euro zone would join the United States and Japan as giant economies less inclined to give up domestic policy objectives for the sake of exchange rate coordination. However, the opposite view is that moving from G-7 to G-3 should make it easier to negotiate methods for reducing volatility in exchange rates. In the end, little should change when the European Central Bank steps in the shoes of the Bundesbank as the master of the EMS exchange rate.

Finally, what will be the impact of economic and monetary union on the International Monetary Fund? One view is: nothing much. Each country will retain its existing role. In its annual review exercise, the IMF will have to take account of the fact that monetary policy is no longer a national responsibility, but that is already the case for other monetary unions in Africa and the Caribbean. However, a more entertaining scenario, if unlikely, envisions EMU countries merging as a single IMF member. Not only would Europe cast the largest number of votes and challenge U.S. dominance, but it could invoke the agreements' article that states "the principal office of the Fund shall be in the territory of the member having the largest quota" and request that the IMF move from Washington to Madrid, Frankfurt, Paris, or Amsterdam....

CONCLUSION

Currencies and nations normally coincide. Europe is set to attempt an original experiment....

The Maastricht Treaty is the fundamental act on which Europe rests. It is an international treaty, formally ratified by all European Union countries, and it supersedes national legislation. Giving up EMU would throw up more than just monetary union. It would create a situation of deep political crisis with unpredictable consequences. For that reason alone, the bet is that EMU will be on, on time.

Is the logic behind monetary union only political? Quite the contrary. The political aim of a single currency has been pursued relentlessly by its advocates since the late 1950s; several explicit attempts failed because economic conditions were not ripe. The Maastricht Treaty only came about because the lifting of capital controls had reduced the alternate options to just two unpalatable extremes: either allow exchange rates to float freely or accept the complete domination of Germany's Bundesbank over Europe's monetary policy.

Freely floating exchange rates are not compatible with a completely borderless economic area. They carry the germs of protectionist pressure and financial instability which threaten economic integration. As for dominance by the Bundesbank, it has been largely beneficial over the last decade, chiefly because inflation has been eliminated. Yet there have been costs: lasting double-digit unemployment, major policy mistakes that led to the currency crises of 1992-93, and continuing disagreements over the objectives of the Bundesbank. The current

situation is not sustainable because it entails a fundamental contradiction. On one hand, the Bundesbank derives its leadership from a reputation of undeterred commitment to price stability in Germany. On the other hand, long-lasting leadership requires that all of Europe's economic conditions be taken into account, which is against the Bundesbank's constitutional duty to Germany. Tinkering with the Bundesbank's constitution is not only politically impossible, but doing so would also undermine its credibility and its ability to lead. In this setting, EMU emerges as the best possible economic solution.

Assessing the costs and benefits of monetary union quantitatively is both frustrating and useless. It is frustrating because, frankly, as economists we are unable to compute them with any precision, and we owe it to the profession to admit so in public. Our understanding of monetary and exchange rate policy is regrettably limited, and the lack of a precedent leaves us with more conjectures than certainties. Moreover, quantitative estimates are useless unless they are sized up against the costs and benefits of the relevant alternatives, which is equally beyond our current ability. The best that can be done in this situation is to gain an understanding of where the costs and benefits are likely to reside.

The direct benefits come in the form of reduced transaction costs and reduced uncertainty, possibly including additional transparency in competition. Such effects are likely to be small, but not trivial. Direct benefits also include lower real interest rates for countries where a sizable currency risk premium exists. Indirect benefits come from the institutional arrangements that accompany EMU. The broadening of central bank independence from political control would not have happened without EMU, and with it comes the realization that international competition is not achieved through lobbying for exchange rate manipulation.

More ambiguous is the role of the fiscal restraints, both the entry conditions and the excess deficit procedure. In most countries, these restraints have promoted long-needed efforts at coming to grip with unsustainable deficits. At the same time, the insistence on price stability along with the adoption of rigid and arbitrary criteria of fiscal rectitude have already played a role in deepening and lengthening Europe's phase of slow growth, with huge costs in terms of unemployment and social suffering. The risk now is of more of the same in the early EMU years. As already noted, these costs are the consequence of EMU's parenthood: Germany could not be expected to give up its famed deutsche mark without extensive guarantees. These demands could not be turned down and have probably become excessive. However, once monetary union exists, many arrangements can be changed. Right now, Europeans are biting the bullet and looking beyond the 1999 horizon.

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