



# Economic Letter

## Consequences of the Euro: Monetary Union, Economic Disunion?

by Enrique Martínez-García and Valerie Grossman

**ABSTRACT:** Forming a monetary union brings the benefits of a shared currency but also—as the experience of the euro area shows in the years following the global financial crisis—significant costs associated with the loss of monetary policy independence and exchange rate flexibility.

**N**ineteen countries in the European Union have adopted the euro since 1999, surrendering independence over their monetary policy with the expectation that commercial and political ties would deepen.

A monetary union can lower transaction costs and increase price transparency and competition, creating trade and financial opportunities. Countries reap these benefits based on their ability to exploit them. Similarly, the loss of monetary policy independence affects some countries much more than others.

Experience suggests that the euro area is far from the “optimal currency area” economists envisioned in the 1960s and that its advocates foresaw. Among the reasons: diverging business cycles across member countries, wage (and price) rigidities and limited mobility of labor and capital between euro economies.

### Case for Monetary Union

The theory of optimal currency areas, developed in the early 1960s, outlines when the benefits of a shared currency outweigh the costs associated with the loss of monetary policy independence and exchange-rate flexibility.<sup>1</sup>

The idea behind the theory is that similar business cycles, price and wage

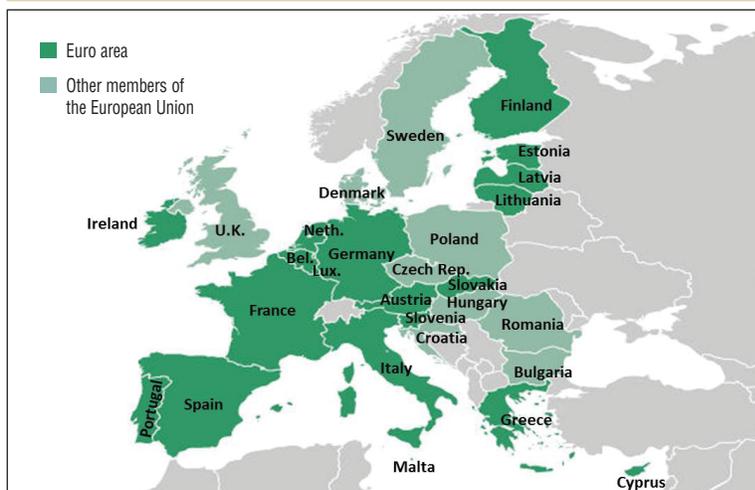
flexibility, and labor mobility across borders lessen the costs associated with a monetary union and make it more likely for a currency area to be optimal for its members. It also suggests that deepening cross-border capital flows or enactment of policies to redistribute fiscal benefits among union members can provide a degree of risk sharing and ease the burden of a monetary union.

The theory was put to a test when 11 European Union member states debuted the euro in 1999: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain. Greece joined in 2001, followed by Slovenia in 2007, Cyprus and Malta in 2008, Slovakia in 2009, Estonia in 2011, Latvia in 2014 and Lithuania in 2015 (*Chart 1*).

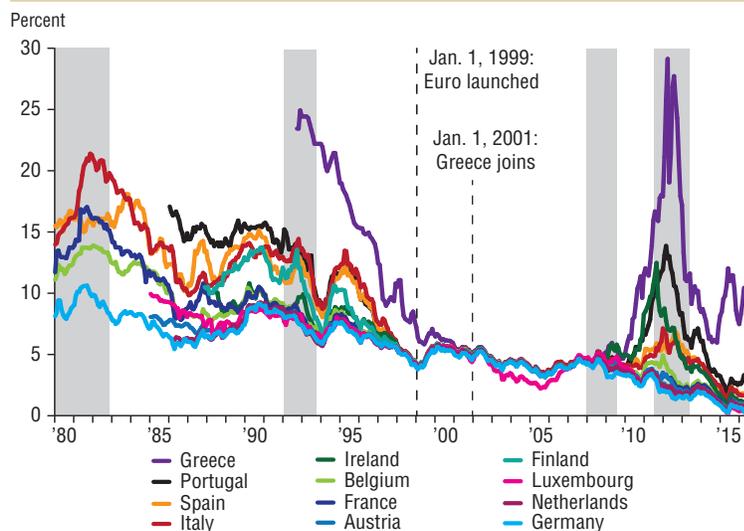
With such a varied group of countries, a situation can arise in which aggregate demand in one of them, say Spain, weakens at the same time that it strengthens in another country, say Germany. Absent a currency union, such divergence could be addressed by pursuing relatively expansive monetary policy (lowering the policy rate, for example) in Spain while tightening monetary policy (raising the rate) in Germany.

However, when the two countries are bound by a shared currency and common

**Chart 1** The European Union and the Euro Area in 2015



**Chart 2** Euro-Area Long-Term Borrowing Costs Converge Before 2008 (10-year government bond yields)



NOTE: Shaded areas show euro-area recessions, according to the Center for Economic Policy Research.  
 SOURCES: European Central Bank; Center for Economic Policy Research.

monetary policy, that's not possible, creating a need for other mechanisms to share risks and absorb shocks. Without recourse to a nominal exchange rate devaluation, the real (inflation-adjusted) value of the monetary union's currency can still decline when wages and prices fall within an area—an adjustment known as an internal devaluation. Reduced costs of production in one country will allow it to gain market share for its exports and boost economic activity through external trade.

Looking at the U.S. in 1992, economists Olivier Blanchard and Lawrence Katz examined the response to rising unemployment.<sup>2</sup> The states share a currency (the dollar) and a monetary policy. In a well-functioning monetary union such as the U.S., adjustment often occurs through the movement of unemployed workers to states with better opportunities and, to a lesser extent, through lower wages (internal devaluation), the economists argued.

Similarly, a monetary union can reduce the cost of adjusting to diverging demand among countries through risk sharing with members. Such sharing can occur through capital markets (stock and bond markets) and cross-country fiscal transfers, such as unemployment insurance. The benefits of a common monetary policy diminish as risk-sharing mechanisms weaken.

## Euro's Benefits

The perceived benefits of the euro stem from expanding trade, lowering transaction costs and facilitating cross-border flows of labor, capital and information. During the euro's first eight years, a remarkable degree of nominal convergence occurred, most evident in interest rates on government debt. Euro backers cited the compression of long-term interest rates among member countries as indicative of the success of the monetary union (*Chart 2*).

Monetary policy autonomy prior to the euro led to differences among countries that were reflected in long-term interest rate spreads. After adopting the euro, countries such as Spain could borrow at essentially the same rates as Germany. Spreads above Germany's relatively safe borrowing cost re-emerged in 2008 with the global financial crisis in spite of a shared monetary policy because of heightened country risks. Dissimilarities across Europe grew, underscoring the costs that come with sacrificing monetary policy independence.

## Monetary Union Limitations

Before the euro, Spain and Germany pursued different economic policies tailored to their own domestic conditions. Such behavior emerged with the 1992 recession.

Spain faced relatively weak aggregate demand and rapidly rising unemployment during the recession. Spanish policymakers chose to provide monetary accommodation, devaluing the peseta twice to stimulate economic activity and boost demand (*Chart 3*). Germany, dealing with a fiscal expansion arising from unification of West and East Germany, continued to pursue the tighter monetary policy stance it had taken since 1989.

The two countries could pursue differ-

ing monetary policies because each had its own currency.

When Spain and Germany adopted the euro in 1999, they lost their ability to conduct monetary policy independently and to use the exchange rate as a policy instrument. The European Central Bank set monetary policy beginning in 1999 based on the economic conditions of the larger monetary union rather than in response to the particular needs of Spain or Germany.

The costs of a single currency with a one-size-fits-all monetary policy became apparent during the 2008–09 recession, when domestic economic conditions deteriorated abruptly and began to significantly differ among euro-area nations, including Spain and Germany (Chart 4).

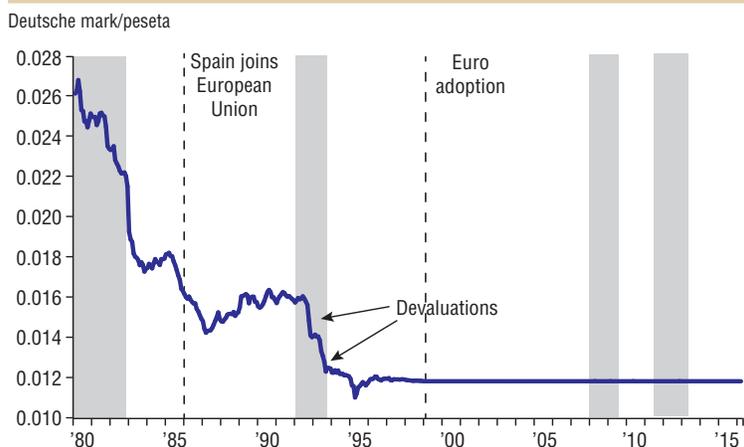
Germany was hit harder than Spain during the downturn but consistently outperformed the euro area during the recovery. Spain, meanwhile, significantly underperformed. The stance of monetary policy became too restrictive for Spain, which suffered a severe economic contraction and high unemployment. Spain could no longer unilaterally employ the tools it formerly used to combat a slowdown and boost exports—lower interest rates and exchange rate devaluation.

A weak recovery took hold in the euro area in 2009–12—but with significant differences across countries. The 2010–12 sovereign debt crisis that was particularly pronounced in the so-called periphery countries, which included Spain, accentuated the problem.<sup>3</sup> The recovery firmed up and became broad based as public finances improved during 2012–15.

## Labor Markets

Spain's struggles and those of the other countries in the euro-area periphery since 2008 have raised questions about the costs of a common currency. The ability to undertake an internal devaluation has proven to be limited because European labor markets remain quite rigid and subject to national wage setting. In such an environment, wages and prices within a country adjust slowly to changing economic conditions. Although Spain regained some external competitiveness primarily by lowering its labor costs, unemployment rose sharply—6.9 percentage points during 2009–12 on top of a 6.6 percentage-point rise during 2008–09 (Table 1).

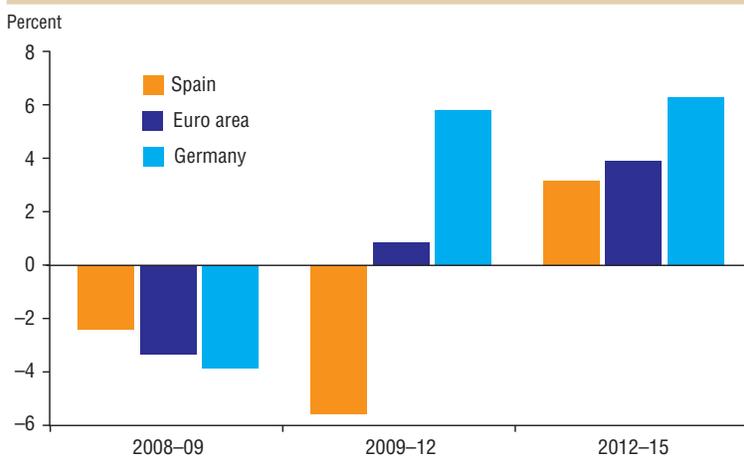
**Chart 3** Exchange Rates Become Fixed with Euro Adoption



NOTES: Shaded areas show euro-area recessions, according to the Center for Economic Policy Research. The Deutsche mark was Germany's currency and the peseta was Spain's before the introduction of the euro.

SOURCES: Federal Reserve Board; Center for Economic Policy Research.

**Chart 4** Euro-Area Conditions Diverge After 2008–09 Global Recession (Cumulative growth of real GDP since 2008)



SOURCES: European Commission; authors' calculations.

**Table 1** Spain's Costly Change Since 2008: Lower Labor Costs, Higher Out-Migration

	Spain		Euro area		Germany	
	2009–12	2012–15	2009–12	2012–15	2009–12	2012–15
Real unit labor costs (%)	-5.64	-1.53	-0.97	-0.56	-0.54	-0.05
Unemployment rate (diff.)	6.90	-2.50	1.80	-0.40	-2.20	-0.60
Working-age population (%)	-0.79	-2.28	-0.09	-0.25	0.37	1.64
Government debt over GDP (diff.)	32.71	15.25	12.97	2.19	7.21	-8.06

NOTES: The table shows percent changes for the periods 2009–12 and 2012–15 in real unit labor costs and the working-age population. It also includes the difference in percentage points of the unemployment rate and the government debt over gross domestic product for both periods.

SOURCES: European Commission; authors' calculations.

Economists Blanchard and Katz, who questioned the costs of the European monetary union prior to its debut, pointed out that labor mobility can be an even more important channel than internal devaluation to confront diverging economic conditions within a monetary union.

Unlike movement between U.S. states, labor mobility across European countries—and sometimes within nations—was and remains limited. Structural barriers (cultural, linguistic) continue to restrict labor mobility. The severity of the recession in Spain, among other factors, reduced the size of the working-age population, particularly during 2012–15, as Table 1 shows. If workers cannot leave the country for opportunities elsewhere, they might become discouraged and drop out of the workforce. Table 1 indicates that labor force adjustment has occurred very slowly and only after unemployment rates exceeded 20 percent after 2010.

### Risk-Sharing Mechanisms

While significant progress has been made toward developing a single market, many obstacles to cross-border capital mobility remain—legal, regulatory and tax. In a 2015 report on accomplishing the economic and monetary union, the European Commission endorsed completion of a banking union and a new capital markets union initiative.<sup>4</sup>

The same report cites movement toward fiscal union as another important long-term goal for Europe. However, financial transfers across countries haven't played a significant role simply because the European Union's budget

remains relatively small (less than 2 percent of its total gross domestic product). To cushion the effects of the 2008–09 recession, national governments pursued expansive domestic fiscal policies that entailed accumulating substantial debt. The added obligations partly contributed to deteriorating conditions during the 2010–12 sovereign debt crisis.<sup>5</sup>

### Euro's Future

European monetary union proved costly following the 2008 recession because of limited wage and price flexibility and a lack of cross-border labor mobility. Moreover, the absence of a fiscal union continues to confound the monetary union along with inadequately developed private risk-sharing mechanisms through deeper cross-border capital mobility.

The euro's creation owes much to Europe's desire to heal the wounds of World War II and reassert itself on the world stage. To the extent that European countries remain committed to making the euro work, they will need to pursue policies to remove barriers and facilitate the cross-border movement of labor and capital.

*Martínez-García is a senior research economist and advisor and Grossman is a senior research analyst in the Research Department at the Federal Reserve Bank of Dallas.*

### Notes

<sup>1</sup> See "A Theory of Optimum Currency Areas," *American Economic Review*, vol. 51, no. 4, 1961, pp. 657–65; "Optimum Currency Areas," by Ronald I. McKinnon, *American*

*Economic Review*, no. 53, vol. 4, 1963, pp. 717–25. A related examination of the euro can be found in "The Euro and the Dollar in the Crisis and Beyond," by Enrique Martínez-García and Janet Koech, Federal Reserve Bank of Dallas, Globalization and Monetary Policy Institute Annual Report, 2010. For more in-depth analysis, see *Economics of Monetary Union, Tenth Edition*, by Paul De Grauwe, New York: Oxford University Press, 1992, reissued 2014.

<sup>2</sup> See "Regional Evolutions," by Olivier J. Blanchard and Lawrence F. Katz, *Brookings Papers on Economic Activity*, vol. 23, no. 1, 1992, pp. 1–76.

<sup>3</sup> Greece, Ireland, Portugal and Cyprus were bailed out by the European Commission and the International Monetary Fund, with additional support from the European Central Bank, as a result of the 2010–12 sovereign debt crisis. Spain received aid in 2012–13 for bank recapitalization.

<sup>4</sup> See "Completing Europe's Economic and Monetary Union," by Jean-Claude Juncker, in cooperation with Donald Tusk, Jeroen Dijsselbloem, Mario Draghi and Martin Schulz, European Commission, 2015.

<sup>5</sup> In theory, the efficiency of a common redistributive policy in the context of economic integration depends on the amount of common benefits to be adopted. (See "A Single Welfare Benefit Level for Europe? Efficiency Implications of Policy Harmonization in a Federal System," by Jason L. Saving, *Southern Economic Journal*, no. 70, vol. 1, 2003, pp. 184–94.) Furthermore, maintaining stable prices at home within a monetary union depends not solely on domestic fiscal policy but also on the fiscal policies of other governments with which a country shares a common currency. (See "Control of the Public Debt: A Requirement for Price Stability?" by Michael Woodford, National Bureau of Economic Research, NBER Working Paper no. 5684, 1996; *The Debt Burden and Its Consequences for Monetary Policy*, by Guillermo A. Calvo and Mervyn A. King, eds., New York: St. Martin's Press, 1998, pp. 117–54; and "The Precarious Fiscal Foundations of EMU," by Christopher A. Sims, *De Economist*, vol. 147, no. 4, 1999, pp. 415–36.)



## DALLAS FED

## Economic Letter

is published by the Federal Reserve Bank of Dallas. The views expressed are those of the authors and should not be attributed to the Federal Reserve Bank of Dallas or the Federal Reserve System.

Articles may be reprinted on the condition that the source is credited and a copy is provided to the Research Department of the Federal Reserve Bank of Dallas.

*Economic Letter* is available on the Dallas Fed website, [www.dallasfed.org](http://www.dallasfed.org).

**Mine Yücel**, Senior Vice President and Director of Research

**Michael Weiss**, Editor

**Kathy Thacker**, Associate Editor

**Ellah Piña**, Graphic Designer

Federal Reserve Bank of Dallas  
2200 N. Pearl St., Dallas, TX 75201