



## Euro Crisis and America # 2

### Lessons from the Euro Crisis

July 21, 2010

#### THE EURO PROJECT WAS RUSHED BY POLITICS

In 1961, Robert Mundell developed the concept of an optimal currency area to determine whether countries should participate in a monetary union. In 1999, the year the euro came into existence, he received the Nobel Prize in economics in part for this work. According to Mundell, an optimal currency area has four major characteristics: (1) Capital and labor mobility; (2) flexible prices, including wages and interest rates; (3) similar business cycles; and (4) fiscal transfers to soften the blow from asymmetric shocks, meaning external shocks that do not affect the entire area the same way. These characteristics essentially describe a single, integrated market economy. In the *Single Europe Act of 1986*, the European Union (EU) Member-States had agreed to create just such a single market economy by harmonizing regulations and allowing the free movement of products, capital, and people within the EU by 1992.

However, the Berlin Wall fell on November 9, 1989, before the Member-States had not yet fully implemented a single market. The prospect of a reunified Germany—home to Western Europe’s largest economy and population—unsettled its neighbors. In order to forestall the possibility that Germany might leave its western alliances, especially the EU and NATO, French President François Mitterrand, in particular, insisted that West German Chancellor Helmut Kohl agree to move the EU beyond a single market and create an Economic and Monetary Union before France would consent to German reunification.

The EU was nowhere close to meeting the criteria of an optimal currency area at the time. Therefore, the Member-States agreed in

- Because of the economic diversity within the EU, the ECB cannot maintain a monetary policy that is economically appropriate for all of the euro-zone Member-States.
- During the last decade, the ECB’s monetary policy was too accommodative for the EU’s Atlantic and Mediterranean fringe. Firms, households, and governments were lent euros far in excess of their ability to repay. This fed unsustainable booms that collapsed.
- For firms in the fringe to regain their competitiveness, real wages must decline. Under the euro, this adjustment must occur internally through falling nominal wages.
- The fringe is in recession. Banks in Belgium, France, and the Netherlands have large credit exposures to the fringe. Losses could lead to a credit crunch in the rest of the EU. Through trade and investment links, this poses a downside risk to the U.S. economic recovery.
- Although the U.S. is much closer to what Nobel laureate Robert Mundell called an “optimal currency area” than the EU, excessive federal borrowing, can still wreck the U.S. dollar. The euro-zone is providing an object lesson.

*“The euro is going to be a big source of problems, not a source of help.”*

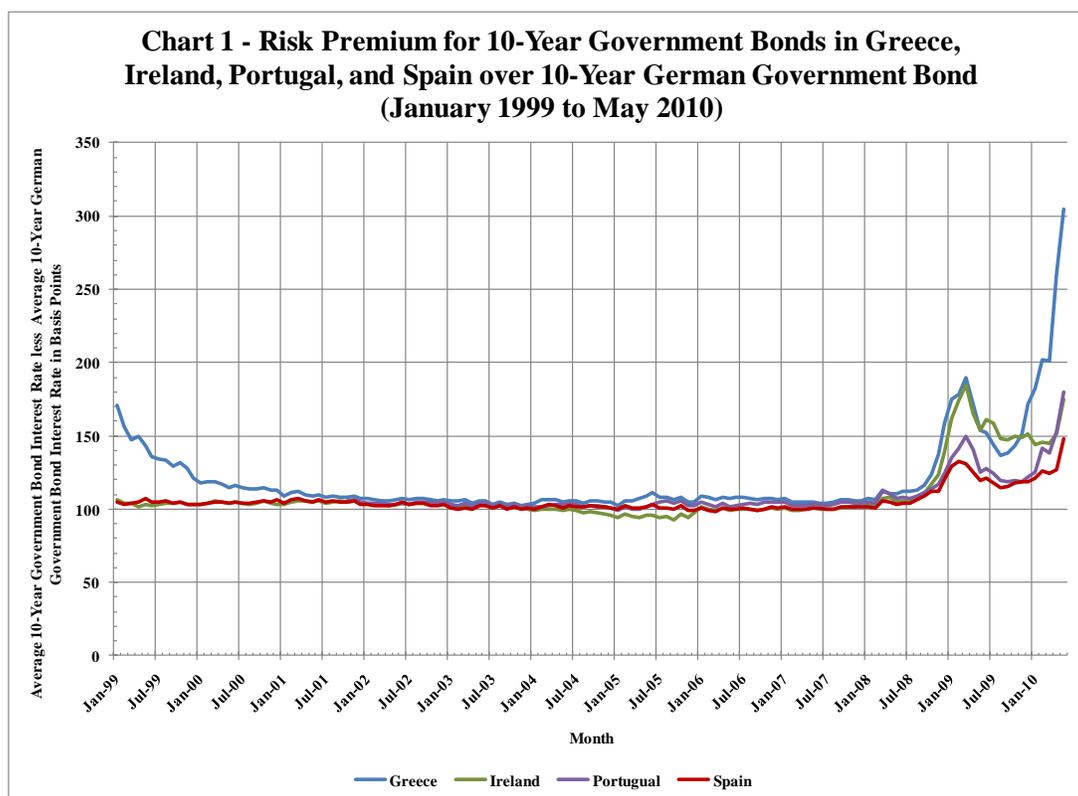
**Milton Friedman**

Nobel Laureate in Economics  
(July 31, 1912 – November 16, 2006)  
Interview w/ *New Perspectives Quarterly Magazine*, 2005.

the *Maastricht Treaty of 1992* to create the European Central Bank (ECB) with the euro as the common currency, but to preserve the right of Member-State governments to determine their own spending, raise their own taxes, and service their own debt. Denmark and the United Kingdom chose not to adopt the euro. The Treaty established convergence criteria with respect to exchange rate stability and interest rate differentials for Member-States to join the monetary union and with respect to government budget deficits and debt prior to as well as subsequent to joining the union. Annual government budget deficits were not to exceed 3% of GDP, and government debt was not to exceed 60% of GDP. The latter conditions were intended to avoid future bailouts of profligate Member-States and preempt pressure on the ECB to monetize debt.

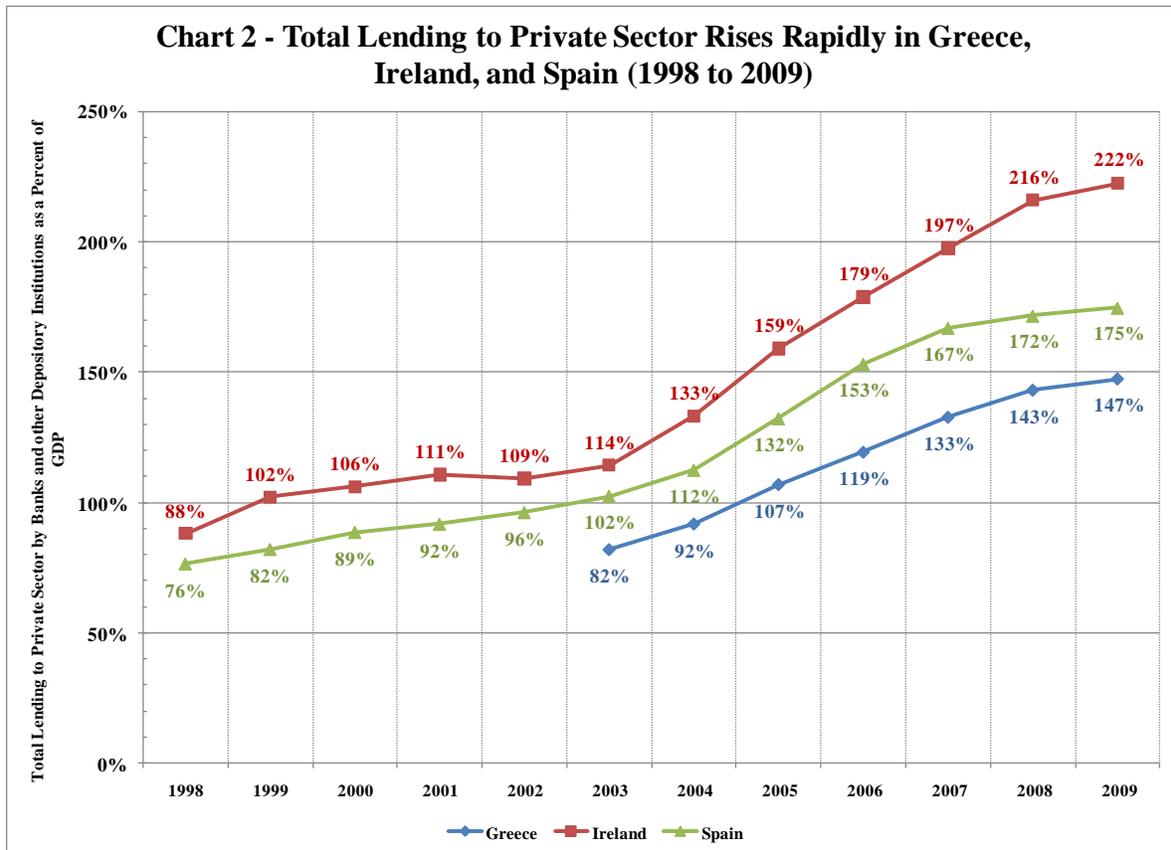
## ROAD TO A DEBT CRISIS

**Impaired risk awareness.** The euro made borrowing easier in many Member-States. Prior to adopting the euro, interest rate differentials on government bonds reflected differences in the soundness of Member-States' fiscal and monetary policies. For example, in the five years prior to introduction of the euro, the average interest rate on 10-year government bonds was 218 basis points higher in Spain than in Germany, while Greece had to pay 805 basis points more than Germany. The euro-zone removed the control of monetary policy from Member-States' central banks and ostensibly imposed clear limits on borrowing and debt accumulation by their governments. The *Maastricht Treaty* also forbade the ECB from monetizing the government debt of Member-States. Based on the belief that (a) the ECB would not inflate the euro, and (b) the Treaty would prevent excessive deficit spending by Member-State governments, much of the risk premiums over German interest rates disappeared until the financial crisis hit, as Chart 1 demonstrates.



Source: Bank of Greece/Haver Analytics, Central Bank of Ireland/Haver Analytics, Financial Times/Haver Analytics, Banco de España/Haver Analytics, Deutsche Bundesbank/Haver Analytics. Calculations by authors.

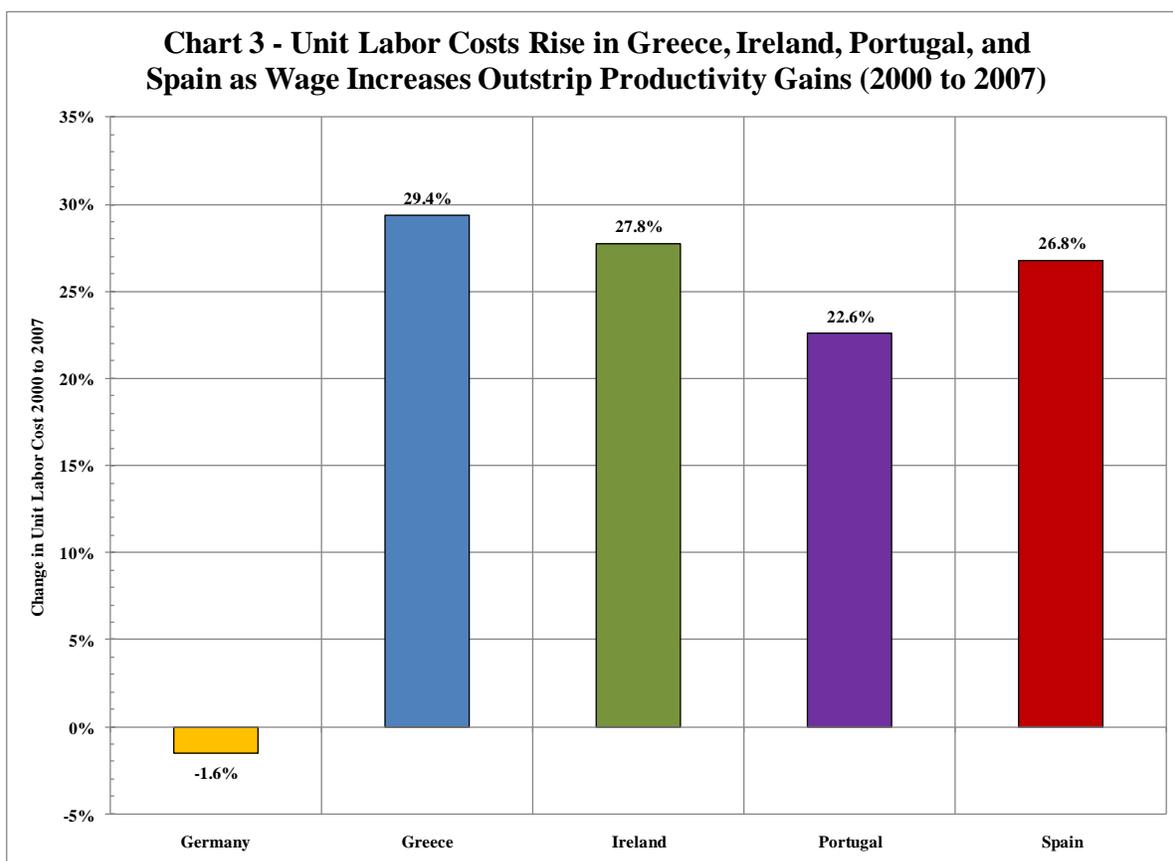
The creation of the euro eliminated exchange rate risk, spurring intra-EU trade and investment. Total credit to the private sector expanded rapidly in the Member-States on the Atlantic and Mediterranean fringe. From 2003 to 2007, total credit to the private sector in Greece grew by 50.8 percentage points to 132.7% of GDP. From 1998 to 2007, total credit to the private sector in Ireland exploded by 109.5 percentage points to 197.5% of GDP, while total credit to the private sector in Spain ballooned by 90.6 percentage points to 167.1% of GDP (see Chart 2). Declining interest rates and increased borrowing lifted economic activity for an extended period and desensitized lenders to a different and more serious risk, namely the credit risk that borrowers may not repay their loans.<sup>1</sup>



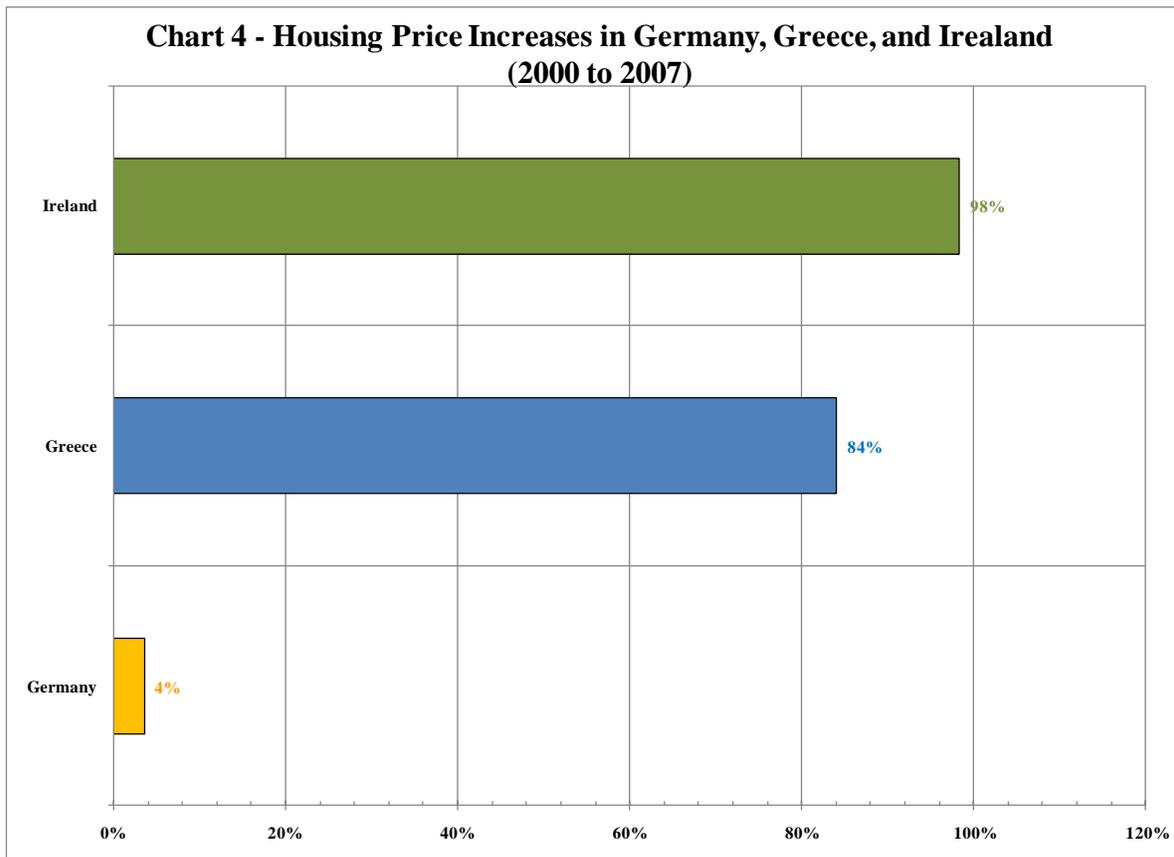
Source: Lending data: Bank of Greece/Haver Analytics, Central Statistics Office/Haver Analytics, and Banco de España/Haver Analytics and GDP data: National Statistical Service of Greece/Haver Analytics, Central Statistics Office/Haver Analytics, and Instituto Nacional de Estadística/Haver Analytics. Calculation by authors.

**The diverse euro-zone poses a challenge for monetary policy.** While the euro-zone may represent a largely unified product market, it spans a collection of very different economies. Therefore, it is inherently difficult for the ECB to conduct a monetary policy that will be appropriate for economic conditions in all euro-zone Member-States. From Q1-2000 to Q2-2007, average real GDP growth was 4.2% in Greece, 6.0% in Ireland, and 3.6% in Spain compared with only 2.0% in France and 1.4% in Germany. Monetary policy geared toward the first group of countries could have triggered deflation and recession in the latter group, but the ECB instead chose to orient its monetary policy toward economic conditions in France and Germany. However, interest rates appropriate for France and Germany were too low for the Atlantic and Mediterranean fringe countries.

Since competition across the euro-zone market kept inflation low for consumer products and other tradable goods and services, price escalation tended to occur in the non-tradable sector, namely in wages and asset prices, especially for real estate. From 2000 to 2007, for example, average hourly wages grew by 33.4 % in Spain compared with 14.3 % in Germany. Higher wages and benefits without offsetting productivity gains escalated unit labor costs in Greece, Ireland, Portugal, and Spain by 29.4 %, 27.8%, 22.6%, and 26.8%, respectively, from 2000 to 2007, reducing the international competitiveness of their domestic firms in the tradable goods and services sector. In contrast, unit labor costs in Germany edged down by 1.6% from 2000 to 2007 (see Chart 3). Housing prices from 2000 to 2007 also rose rapidly, by 84% in Greece and 98% in Ireland, while edging up by only 4% in Germany (see Chart 4). Eventually, the asset price bubbles in the fringe bust. Before the euro crisis came to a head in May 2010, Greece, Ireland, Portugal, and Spain already were in recession. In 2009, real GDP contracted by 2.0 % in Greece, 7.1 % in Ireland, 2.7 % in Portugal, and 3.6 % in Spain.



Source: Deutsche Bundesbank/Haver Analytics, National Statistical Service of Greece/Haver, Central Statistics Office/Haver Analytics, Instituto Nacional de Estadística/Haver Analytics, and Instituto Nacional de Estadística/Haver Analytics.  
Calculations by authors.



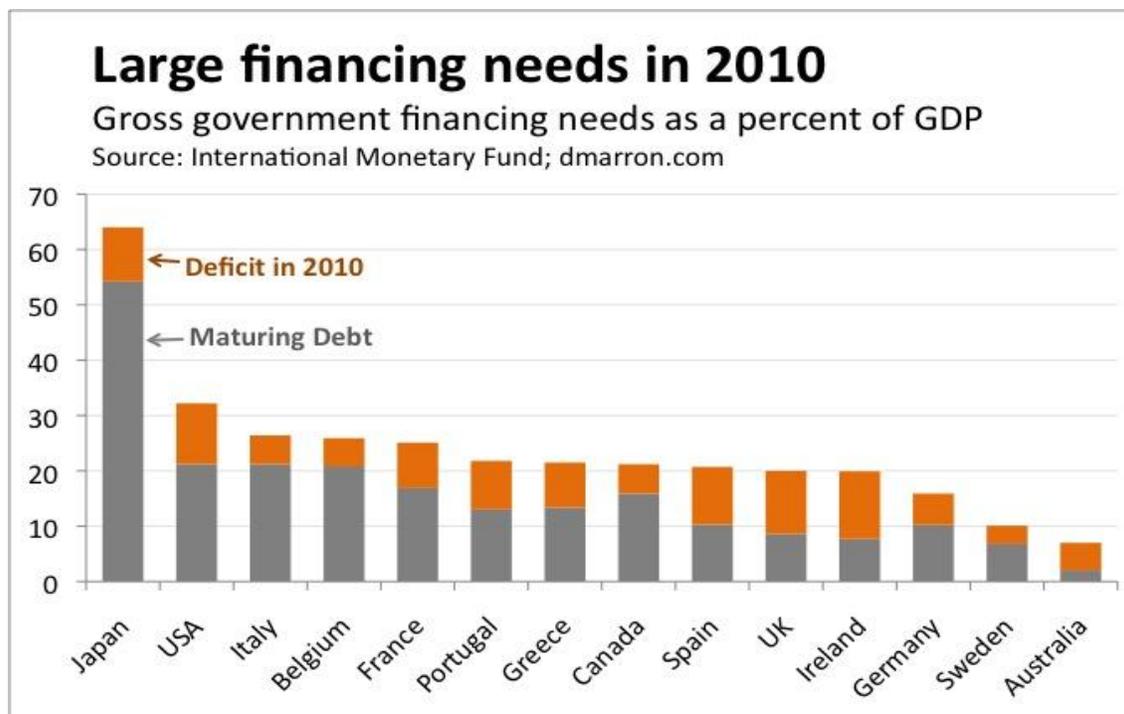
Source: BulwienGesa AG/Haver Analytics, Bank of Greece/Haver Analytics, and Department of the Environment, Heritage & Local Government/Haver Analytics. Calculations by authors.

**Excessive borrowing.** The ECB’s monetary policy set a low basis for euro-zone interest rates. Low inflation expectations, the absence of exchange rate risk, and disregard for credit risk suppressed risk premiums for Member-States on the Atlantic and Mediterranean fringe. As a result, Member-States that had done little to reform their domestic economies and streamline their government sectors gained access to plentiful credit at low interest rates and piled up large government and private sector debt burdens. Now, the recession has raised doubts about the ability of their governments to (a) repay their own debt, and (b) support financially weak banks that have a large exposure to at-risk sovereign debt and real estate loans. Risk premiums have returned in force (see Chart 1).

Greece, Ireland, Portugal, and Spain have large government budget deficits relative to GDP. Their unemployment rates are in double digits and the OECD projects them to remain virtually unchanged in 2011, or to get significantly worse in the case of Greece. Greece, Portugal, and Spain have substantial current account deficits as well.

Even before a default occurs, these governments may not find lenders willing to take the risk of extending them credit to rollover existing debt when it matures and/or to fund deficit spending.<sup>2</sup> At a time when many Member-States have huge borrowing needs (see Chart 5), those with the weakest economies will encounter greater difficulty in credit markets. Greece recently averted default only with the help of an EU/IMF loan package.

Chart 5



**Lacking resilience.** The amount of debt is one concern; another is whether the weaker economies can bounce back and grow out of their debt problems. In the case of Greece, it is already doubtful whether the Greek government can satisfy the conditions of its EU/IMF loan package and meet its debt obligations. Several of the Member-States with debt problems have rigid labor markets in terms of cutting wages and benefits and dismissing full-time workers. This rigidity discourages firms from investing in new projects and hiring new workers. Consequently, firms create fewer new jobs to replace jobs lost after an economic shock. Labor market rigidity thus tends to increase the depth and severity of recessions, especially with regard to unemployment.

The Blue Chip consensus forecast (July 2010) projects real GDP growth for the euro zone as a whole of only 1.1% in 2010 and 1.5% in 2011 compared with 3.1% in 2010 and 3.0% in 2011 for the United States. While a weaker euro resulting from the debt crisis will boost EU exports, “household spending may remain modest due to high unemployment, tight credit, and general economic uncertainty.”

Dampened expectations for euro-zone growth and solvency problems for many European banks with large exposures to questionable government and private debts represent a significant downside risk to the U.S. recovery over the next two years (see Chart 6). In particular, banks in Belgium, France, and the Netherlands have large foreign exposures to borrowers in Portugal, Ireland, Italy, Greece, and Spain, commonly referred to as the PIIGS. U.S. bank exposure to the European financial sector could again cause a general tightening of credit availability, if problems intensify overseas. Furthermore, weaker EU demand for U.S. imports and stiffer price competition from EU exports from a lower euro-dollar exchange rate may stunt the growth of U.S. exports.

<b>Chart 6 – Foreign Claims of Domestic Banks as a Percent of GDP at Year-End 2009</b>						
<b>Lending to</b>						
<b>Lending from</b>	<b>Greece</b>	<b>Portugal</b>	<b>Spain</b>	<b>Ireland</b>	<b>Italy</b>	<b>Total PIIGS</b>
<b>Austria</b>	1.3%	0.8%	2.5%	2.4%	7.2%	14%
<b>Belgium</b>	0.8%	0.7%	5.0%	14.1%	6.9%	28%
<b>Denmark</b>	0.1%	0.1%	0.8%	7.3%	0.2%	8%
<b>France</b>	3.1%	1.8%	8.9%	2.5%	20.8%	37%
<b>Germany</b>	1.5%	1.5%	6.2%	6.0%	6.2%	21%
<b>Greece</b>	n/a	0.0%	0.1%	0.3%	0.2%	1%
<b>Ireland</b>	4.0%	2.6%	14.5%	n/a	22.1%	43%
<b>Italy</b>	0.4%	0.3%	1.6%	0.9%	n/a	3%
<b>Netherlands</b>	1.6%	1.7%	16.4%	4.2%	9.4%	33%
<b>Portugal</b>	4.7%	n/a	13.4%	10.3%	2.5%	31%
<b>Spain</b>	0.1%	6.4%	n/a	1.2%	0.7%	4%
<b>Sweden</b>	0.2%	0.1%	4.0%	3.5%	3.6%	13%
<b>Switzerland</b>	0.8%	0.9%	4.0%	3.6%	3.6%	13%
<b>UK</b>	0.8%	1.2%	5.7%	9.4%	3.8%	21%
<b>European Banks</b>	1.3%	1.7%	6.0%	4.5%	7.3%	21%

Source: Bank for International Settlements included in a presentation of Desmond Lachman Resident Fellow at AEI to JEC.

## **CRISIS OF THE MONETARY UNION**

**No exchange rate adjustments.** Floating exchange rates among currencies help markets adjust to changing economic conditions in different countries. If a country experiences a recession, or its industries lose international competitiveness, the foreign exchange value of its currency will fall. Such depreciation will simultaneously increase import prices in terms of the domestic currency and reduce export prices in terms of foreign currencies. Lower export prices will stimulate exports, while higher import prices will cause some substitution of domestically made products for imports. The falling foreign exchange value of a domestic currency will lower the real wages paid to domestic workers and help domestic industries to regain their international competitiveness. All of these factors should lead to an increase in net exports that would boost real GDP growth. Moreover, if the foreign exchange value of the domestic currency falls sufficiently, lower domestic asset prices and production costs in terms of foreign currencies would attract significant net inflow of foreign investment that may increase real GDP growth.

In countries with their own currencies, such as Canada from 1993 to 1997, Sweden from 1994 to 1997, and South Korea from 1997 to 1998, falling exchange rates reduced real wages. This helped to restore the international competitiveness of domestic firms, stimulate exports, and dampen imports. Export-led growth cushioned declines in real GDP and employment associated with fiscal contractions or recessions and eventually sparked sustained recoveries. For a country with its own currency, a floating exchange rate provides automatic price flexibility relative to other countries that use different currencies.

Since the euro eliminates this flexibility, Member-States face a greater challenge to mitigate a recession and improve international competitiveness. The burden falls entirely on domestic firms and workers to

lower prices and wages, reallocate resources, and adopt more efficient production methods. In most of the EU, rigid labor policies, generous government programs for the unemployed, restrictive regulation of many industries, and high tax rates hinder this adjustment process and may cause lingering unemployment, compromise the ability of government to maintain promised benefits, and lead to declining living standards.

Many Member-States that joined the euro did too little to reform their economies and institutional structures before relinquishing the automatic external price adjustments afforded by maintaining their own individual currencies. In times when all economies are growing, this loss is not missed, which is why the euro-zone for many years appeared to have been a success. Once growth stops and recession hits, especially when it hits unevenly, that is when the flexibility of a floating exchange rate system is missed and when monetary unions may break up. Indeed, this has been the fate of past monetary unions.

**No good monetary policy solution.** Going forward, Member-States struggling with the deep recessions and severe structural challenges will press the ECB to keep interest rates extraordinarily low, whereas other Member-States will favor higher interest rates to prevent future inflation. As a result, either inflation or protracted regional recessions loom. Germany, which has Europe's largest economy, has consistently advocated sound money. If Germany prevails, struggling Member-States will have to face rising interest rates sooner rather than later. If Germany gives ground, an uneasy compromise may be reached that serves neither the stronger nor the weaker economies very well.

**Fiscal policy.** The last resort to mitigate economic hardship in parts of the euro-zone is a fiscal policy of large transfers from the stronger to the weaker economies. However, Europe is a continent of different languages and strongly felt cultural identities. EU citizens retain their national citizenship. Member-State governments retain control over defense, important domestic programs such as education, health care, age and disability pensions, and unemployment insurance, which are funded exclusively from national treasuries, and over a wide swath of economic regulation. Since the end of World War II, EU Member-States have worked to remove trade and investment barriers and establish a single market for European companies so they can achieve economies of scale similar to those available to U.S. companies. Removing individual national currencies in favor of the euro was the most substantive and consequential step of that undertaking. Increased travel, trade, and, to a more limited extent, mobility of capital and labor have brought the EU's Member-States closer together, but they still are not unified. Europeans favor mobility of labor much less than of goods and services. Large trans-national subsidies to hold the euro-zone together were never contemplated when the benefits of free travel, enhanced gains from trade, and economies of scale for leading European companies found general acceptance by the public.

## **CONCLUSIONS**

- The U.S. will not be getting any help in its economic recovery from Europe. Several Member-States will suffer deep and protracted recessions, while others will experience very slow growth. Indeed, the ECB warns that combined with the large debt servicing and refinancing needs of a number of EU governments and their struggles to reduce ongoing operating deficits, weak economic performance poses risks to the European banking system, which holds a large amount of sovereign debt. Investor concern over government and bank solvency could tighten credit availability and lead to a double dip

recession in Europe. Financial connections with the EU and declining EU demand for U.S. imports could transmit the downturn to the United States.

- The euro zone is not working properly. Dissimilar economies are sharing a currency that prevents appropriate price adjustments among them and with respect to other currencies. If Germany still had the Deutsche Mark, it would be appreciating relative to other currencies. Instead its currency—the euro—is fixed relative to that of Greece’s and Spain’s and has fallen dramatically relative to the U.S. dollar. The lower euro propels Germany’s export-oriented economy, which perpetually generates trade surpluses, while the higher dollar could hinder export growth in the United States, despite its large trade deficit and the increased importance of exports for U.S. economic growth and job creation. Other euro-zone nations would benefit much more from lower national currencies, if they still had them, than they do from the euro’s decline, as illustrated by May’s unemployment rate, which in Germany fell again, from 7.1% to 7.0%, but rose again in Spain, from 19.7% to 19.9%, compared with the prior month.
- The global economy still needs the U.S. dollar, but the U.S. must not exploit this fact. The euro in its current form is a flawed currency; it must either shrink to include only similar economies that tend to move through business cycles in tandem or fully integrate the economies of its Member-States. The former would preclude it from being an equal to the U.S. dollar, while the latter would take a very long time to complete. International investors are fleeing to the U.S. dollar because there is no other convertible currency backed by an integrated economy comparable in size to that of the United States. If the U.S. Government continues to borrow recklessly, however, it will destroy the currency the world depends upon to conduct international trade and investment. Globalized trade and capital allocation need a reliable medium of exchange and store of value, and the U.S. dollar is the closest thing to it. If the Federal Reserve inflates the dollar supply beyond the world’s needs in order to monetize the U.S. Government’s excessive debt, economic growth both in the United States and globally will falter. Those who would rather use the current U.S. position to borrow cheap for a time and finance a domestic spending binge should take a close look at the economic conditions in much of the east and south of Europe.

Theodore Boll  
Robert O’Quinn

## APPENDIX

### MONETARY UNIONS AND THE EURO

**Basics of a monetary union.** A monetary union occurs when one country yields its ability to conduct an independent monetary policy to someone or something else. Monetary unions take several forms: (1) a commodity standard,<sup>3</sup> (2) the adoption of another country's currency,<sup>4</sup> (3) a currency board,<sup>5</sup> and (4) a common central bank. Monetary unions among different countries may have, but do not necessarily require, a single currency. Countries in a monetary union may retain separate currencies if (1) such countries have the same monetary policy, and (2) the exchange rates among all currencies within the monetary union are permanently fixed.

Flexibility in a country's economy reduces both the length and severity of the adjustment process after an economic shock. There are many sources of flexibility. Some are internal such as (1) the free market determination of prices, wages, and interest rates; (2) the free entry and exit of firms into product markets; (3) the free internal migration of workers among firms, industries, and regions; and (4) the "at will" employment of workers. Others are external such as (1) international trade and investment flows, (2) the cross-border migration of workers, and (3) floating exchange rates.

While a monetary union eliminates exchange rate risk among member countries, it also reduces their economic flexibility. This loss of flexibility grows as a country's trade and investment with other union member countries increases relative to its total international trade and investment. Reducing external flexibility through a monetary union heightens the importance of internal flexibility to a country's long-term economic performance.

In 1961, Nobel laureate Robert Mundell developed the concept an **optimal currency area** to determine whether countries should participate in a monetary union. According to Mundell, an optimal currency area has four major characteristics:

1. **Capital and labor mobility.** Individuals and firms should be free to make investments and move funds among all countries within the monetary union. Likewise, individuals should be free to move from one country within the monetary union to another to seek employment or start a business. Cultural and language barriers to migration should be low.
2. **Flexible prices, wages, and interest rates.** Prices, wages, and interest rates should be free to adjust to changing economic circumstances. In general, firms should be free to enter and leave product markets and to employ workers "at will."
3. **Similar business cycles.** Similar business cycles help a central bank to pursue a monetary policy that is appropriate for all of the countries within a monetary union. Significant differences in the timing and amplitude of business cycles among countries in a monetary union mean that monetary policy will necessarily be inappropriate at times for some countries.
4. **Fiscal transfers to soften the blow from asymmetric shocks.** An asymmetric shock may cause a large variation in economic conditions in different countries within a monetary union. When this occurs, fiscal transfers from unaffected or less adversely affected countries may lessen the blow to more adversely affected countries. In the United States, many interregional fiscal

transfers occur automatically after an asymmetric shock. During the second half of the 1970s, for example, sharply higher oil prices produced a boom in energy-producing Texas and a bust in auto-dependent Michigan. Without any policy actions by Congress or the President, federal income and payroll tax collections increased in Texas relative to Michigan, while unemployment insurance claims increased in Michigan relative to Texas.

**Creation of the Euro.** The euro zone is the most ambitious attempt to create a monetary union since the collapse of the classical gold standard after the outbreak of World War I in 1914. Through the *Maastricht Treaty of 1992*, the Member-States of the European Union (EU) agreed to create an Economic and Monetary Union, frequently referred to as the euro zone, with a common central bank and currency. In negotiations, Denmark and the United Kingdom won exemptions and opted out of joining the euro zone.

On June 1, 1998, the European Central Bank (ECB) came into existence. On January 1, 1999, the euro was launched. At first, the euro was notional, while national coins and currencies continued to circulate at permanently fixed exchange rates with the euro. On January 1, 2002, euro coins and currency replaced the national coins and currencies of eleven Member-States plus Monaco, San Marino, and the Vatican. Slovenia joined the euro zone in 2007, Cyprus and Malta in 2008, and Slovakia in 2009.

The *Maastricht Treaty* tried to separate fiscal policy from monetary policy. Each Member-State joining the euro zone remained free to determine government spending and taxes and was responsible for servicing its government debt. To avoid future “bailouts” of profligate Member-States, the Treaty imposed four convergence criteria:

- (1) Inflation rate  $\leq$  1.5 percentage points plus the average in the Member-States with the three lowest inflation rates
- (2) Government finance
  - a. Annual government budget deficit  $\leq$  3 percent of GDP
  - b. Government debt  $\leq$  60 percent of GDP
- (3) Member of the exchange rate mechanism for at least two years prior to joining the euro zone
- (4) Long-term interest rate  $\leq$  2.0 percentage points plus the average in the Member-States with the three lowest long-term interest rates

The Treaty also forbade the ECB from monetizing the government debt of Member-States in financial trouble.

At the time, economists debated whether the euro zone was an optimal currency area. On one hand, the EU was becoming a single market with the free movement of products, capital, and people among its Member-States. Product prices were generally flexible. On the other hand, wages and benefits were “sticky” downward, a large percentage of the workforce was unionized, dismissing workers was often costly and difficult, and cultural and language differences limited worker migration. Moreover, EU fiscal

transfers were limited to agricultural subsidies and aid to impoverished regions for the improvement of infrastructure and as such unrelated to the business cycle.

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1 European banks also extended euro-denominated loans to governments and private borrowers in eastern Europe outside the euro-zone, presumably for the same reasons—confidence in the euro’s stable purchasing power and avoidance of exchange rate risk—but with the same disregard for conditions that could make repayment difficult.

2 Lenders use the ratings from credit rating agencies to determine amount, interest rate, and conditions on loans. Credit downgrades can increase the difficulty of securing new financing. Hence, the European Commission now is moving to regulate credit agencies.

3 Every country that adhered to the classical gold standard that existed prior to the outbreak of World War I was in a de facto monetary union. While central banks or national finance ministries issued national currencies, their ability to conduct independent monetary policy was severely constrained. Monetary policy was effectively determined by gold output and the profitability of gold mining. Thus, monetary policy in all countries adhering to the classical gold standard was largely the same.

4 This form of monetary union is known as dollarization (even if a country adopts a currency other than the U.S. dollar). For example, Panama (1904), Ecuador (2000), and El Salvador (2001) have adopted the U.S. dollar.

5 A currency board is a monetary authority that must maintain a fixed exchange rate with a designated foreign currency known as the reserve currency. In an orthodox currency board, the monetary authority must maintain sufficient reserves in the reserve currency to redeem every unit of national currency that the monetary authority issues at a fixed exchange rate to the reserve currency. The currency board maintains the free convertibility between the national currency and the reserve currency at the fixed exchange rate. A currency board does not engage in discretionary monetary policy. Instead, a country with a currency board effectively imports the monetary policy of the country issuing the reserve currency.