



The Future of the Eurozone and U.S. Interests

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Summary

Seventeen of the European Union's 27 member states share an economic and monetary union (EMU) with the euro as a single currency. Based on a gross domestic product (GDP) and global trade and investment shares comparable to the United States, these countries (collectively referred to as the Eurozone) are a major player in the world economy and can affect U.S. economic and political interests in significant ways. Given its economic and political heft, the evolution and future direction of the Eurozone is of major interest to Congress, particularly committees with oversight responsibilities for U.S. international economic and foreign policies.

Uncertainty about the future of the Eurozone grew in early 2010 as a result of the onset of a sovereign debt crisis in Greece that spread to Ireland later in the year. These concerns, in turn, took on added significance because the euro is considered a cornerstone of the European integration process.

One important cause of the crisis stemmed from flaws in the architecture of the currency union, including the fact that the EMU provides for a common central bank (the European Central Bank or ECB), and thus a common monetary policy, but leaves fiscal policy up to the member countries. Weak enforcement of fiscal discipline, over time, led to rising public debts, contributing to the 2010 Eurozone debt crisis. The problems were compounded by rapid expansion private sector debt in a number of countries, most notably Ireland.

In response, European leaders and institutions have adopted financial assistance packages for Greece in May 2010 and for Ireland in November 2010, combined with proposals to reform the currency union. These reforms center heavily on creation of a permanent liquidity facility (European Stability Mechanism or ESM) and real economy measures involving austerity and structural reforms to lower deficits and increase the competitiveness of the most highly indebted Eurozone members. These reforms do not contemplate sovereign debt restructuring, a break-up of the Eurozone, or movement towards a political or fiscal transfer union.

The reforms, if implemented, could strengthen the foundation of the Eurozone and bolster confidence in the euro. Given that the currency union is largely a political undertaking and a major symbol of European integration, European leaders may be expected to support reforms which keep the currency union intact. Moreover, the proposals under consideration introduce institutions and policies that did not exist prior to the crisis, and represent higher levels of integration and commitment to strengthening the EMU.

At the same time, a number of factors could weaken or even perhaps undermine the sustainability of the Eurozone. In the event of sovereign defaults by some members, public support in fiscally sound Eurozone countries for resource transfers to highly-indebted countries could decline. Shared responsibility for defaults could also lead to divisions among Eurozone members, causing some members to reconsider the costs and benefits of membership. In addition, the fiscal problems some Eurozone members face stem from economic imbalances that may be very difficult to resolve without a shift in economic policies by its members, particularly Germany.

If the Eurozone survives largely in its current form or strengthens, the impact on U.S. interests is likely to be minimal. However, if the Eurozone were to break-up in a way that undermines the functioning of Europe's single market or resurrects national divisions, the impact on U.S. economic and political interests could be significant.

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Introduction

What has become known as the Eurozone crisis began in early 2010 when financial markets were shaken by heightened concerns that the fiscal positions of a number of Eurozone countries, beginning with Greece, were unsustainable.¹ Fears that a possible Greek default could spread to other Eurozone countries, particularly Ireland, Italy, Portugal and Spain, were exacerbated by revelations of banking sector weaknesses and a delayed policy response from European leaders and institutions. After extended negotiations, European leaders agreed in May 2010 to provide funding for a joint euro area loan facility for Greece and a broader one for other euro area countries should they require loans.² Both loan packages were backstopped by various forms of assistance from the U.S. Federal Reserve Board (FRB) and the International Monetary Fund (IMF).³ And on November 28, 2010, European and IMF authorities announced a three-year, €85 bn (\$112 billion) assistance package for Ireland. European policymakers concurrently have focused on the need to address flaws in the architecture of the Economic and Monetary Union (EMU) of the European Union (EU).⁴

Most observers of the Eurozone believe that reform of the currency union is needed in order to bolster the euro and avoid another fiscal crisis triggered by public debt and government deficits. How the members of the Eurozone address this overriding challenge to bolster the viability and stability of the currency union, in turn, has added significance. Unlike in countries such as Argentina or Mexico, where currency crises did not bring into question the existence or survival of the state, the euro bears weight in terms of Europe's political aspirations for an "ever closer

¹ For elaboration and analysis of the Greek debt crisis, see CRS Report R41167, *Greece's Debt Crisis: Overview, Policy Responses, and Implications*, coordinated by Rebecca M. Nelson.

² Germany was widely criticized, including by U.S. officials, for waiting several months after the onset of the Greek crisis in February 2010 before agreeing to loan facilities for Greece and other Eurozone member states. German reluctance is thought to have stemmed primarily from strong domestic opposition to the proposed relief packages. Many Germans consider Greece's problems to be a consequence of Greek government profligacy and, as such, see Greece as a burden on the German taxpayer. In light of this opposition, German Chancellor Merkel insisted that the Greek government commit to significant austerity measures before giving her support to a European assistance package. Nevertheless, the significant German public opposition to assisting Greece suggests that the German government could have a difficult time winning support for future monetary transfers to other Eurozone countries. This could present a significant challenge as European leaders engage in ongoing efforts to reform the architecture of the currency union, as well as shore up the banking sector.

³ The United States is the largest financial contributor to the IMF, and some Members of Congress have expressed reservations about the IMF loan to Greece. In response to the IMF loan to Greece, Congress included provisions in the financial regulatory legislation (P.L. 111-203) to protect IMF resources. For discussion and analysis of the role of the International Monetary Fund, see CRS Report R41239, *Frequently Asked Questions about IMF Involvement in the Eurozone Debt Crisis*, coordinated by Rebecca M. Nelson.

⁴ A total of 17 states (Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Spain, and Slovenia) of the 27-member European Union (EU) participate in an economic and monetary union (EMU) with the euro as the single currency. The other members of the EU are Bulgaria, Czech Republic, Denmark, Hungary, Latvia, Lithuania, Poland, Romania, Sweden, and the United Kingdom. All 27 members take part in the "economic union" through various forms of policy coordination, a single market, and single external trade policy, but 16 members have taken economic integration a step further, to the EMU. Denmark and the United Kingdom were granted special opt-outs of the currency union and are legally exempt from joining unless their governments decide otherwise, either by parliamentary vote or referendum. Sweden has gained a *de-facto* opt-out through the use of various legal provisions. All new members of the EU after 1994 need to adopt the euro as soon as they meet certain economic policy targets.

union.” As viewed by German Chancellor Angela Merkel, “the currency union is ... a question, no more or less, of the preservation of the European idea ... for if the euro fails, Europe fails.”⁵

A broad range of views exists on the future of the Eurozone. Some academics and journalists maintain that fears about the long-term viability of the Eurozone are exaggerated. The most optimistic, in fact, see the crisis as an opportunity to advance the idea of an ‘ever closer union’ by pursuing greater economic integration and joint coordination of fiscal policy on the European level. Other academics and journalists maintain that a potential break-up of the currency union, in part or in whole, cannot be ruled out. While such a development would not necessarily lead to the demise of the European Union, most observers agree that a break-up would be destabilizing. A middle-ground perspective holds that Europe has the option to muddle through the crisis by the introduction a combination of liquidity facilities and reforms that will lower fiscal deficits and raise economic growth in financially troubled member states.⁶

The Obama Administration, Federal Reserve (Fed), and Congress have been actively engaged in monitoring and working towards an orderly resolution of the Eurozone crisis. Initially, a major U.S. concern was that a sovereign default by Greece could have risked another wave of credit freeze-ups, instability in the European banking sector, and spillover to global financial markets. Between February and May 2010, U.S. officials consistently urged their European counterparts to provide financial assistance to Greece and other vulnerable European economies. The Fed reactivated temporary swap lines to provide the ECB with liquidity should it be needed.

Congressional concerns centered on the role that the IMF was playing in resolving the crisis. Other concerns have focused on how slower growth in Europe may affect the U.S. economy, as well as on how the evolution of the currency union could affect the U.S.-European political partnership. Given its economic and political importance to the United States, the evolution and future direction of the Eurozone is of major interest to Congress, particularly committees with oversight responsibilities for U.S. international economic and foreign policies.

This report provides background information and analysis on the future of the Eurozone in six parts:

- the **first** part discusses the origins, rationale, economic significance, key provisions, and design challenges of the Eurozone;
- the **second** section describes how persistent economic imbalances are underlying causes of the Eurozone crisis and analyzes how the imbalances are related to inadequate adjustment mechanisms within the EMU;
- the **third** section focuses on proposals to defuse the Eurozone crisis and strengthen the framework of the currency union;
- the **fourth** section examines three possible scenarios for the future of the Eurozone: (1) the Eurozone breaks apart, (2) the Eurozone survives, and (3) the Eurozone becomes more integrated;

⁵ Quoted in *Financial Times*, “Adrift Amid a Rift,” by Ben Hall and Quentin Peel, June 24, 2010.

⁶ Jacob Funk Kirkegaard, “How Europe Can Muddle Through Its Crisis,” *Peterson Institute for International Economics*, December 2010.

- the **fifth** section assesses the implications of the Eurozone crisis for U.S. economic and political interests; and
- a **sixth** and final section offers concluding observations.

Background on the Economic and Monetary Union (EMU)

EMU officially stands for Economic and Monetary Union, but it also commonly referred to as the European Monetary Union. EMU is the agreement among participating countries of the European Union to adopt a single currency, the euro, and a common monetary policy set by a common central bank, the European Central Bank.

Origins, Rationale, and Economic Significance

The origins of EMU are closely linked with the international monetary system established after World War II.⁷ As part of the post-war reconstruction efforts, countries returned to a gold standard and created a fixed, but adjustable, system of international exchange rates based on a fixed exchange rate between the U.S. dollar and the price of gold. The goal was to provide international monetary stability, facilitate trade, and prevent the competitive devaluations, unstable exchange rates, and protectionist trade policies of the interwar years. While European leaders had begun the process of economic integration immediately following World War II, consideration of monetary union did not begin in earnest until the international monetary anchor provided by the dollar-gold standard collapsed in 1971 and a new wave of currency instability emerged amidst divergent national policy responses to several 1970s economic shocks, including the oil crisis.

In 1979, the nine member countries of the European Economic Community (EEC) created the European Monetary System (EMS). The EMS introduced fixed but adjustable exchange rates among participating countries' currencies in order to keep fluctuations of their exchange rates within acceptable bands. In 1988, the European Commission, then led by Jacques Delors, chaired a committee which proposed a three-stage plan to reach full economic union. The plan included the establishment of a European central bank and a single currency that would replace national currencies.

The EMU officially began on January 1, 1999, when eleven EU members pegged their currencies at a fixed exchange rate in preparation for adoption of a common currency, the euro. Participating countries have a common central bank, the European Central Bank (ECB), and by extension a common monetary policy. Fiscal policy, or decisions about spending and taxation were left to the individual member states, subject to the 1997 Stability and Growth Pact.

The primary rationale for the EMU was to provide momentum for political union, a long-standing goal of many European policymakers. Germany and France, Europe's largest economies, played the lead role in establishing the EMU, but they have not always agreed on the management and

⁷ For more information, see Harold James, *International Monetary Cooperation Since Breton Woods* (Oxford: Oxford University Press, 1996).

direction of the single currency. Most observers believe that Germany's initial support for monetary union was motivated more by political than economic interests—former Chancellor Helmut Kohl saw the currency union as an important way to anchor Germany securely in a united Europe. French leaders, on the other hand, are thought to have viewed the currency union as a key step to increasing French influence within Europe. Each country subsequently had different priorities in guiding the development of the monetary union. Germany has insisted that the Eurozone be anchored in a culture of tight money, low inflation policy, and fiscal discipline. Accordingly, the ECB's overriding commitment to price stability is thought to reflect German preferences. For its part, France has pushed for more flexibility in European monetary policy and for more political control over the inflation-fighting ECB.⁸

Although political goals were the driving force in the move towards monetary union, discussions of EMU also focused heavily on its economic costs and benefits. Generally, European monetary union was expected to make Europe's economy more efficient, thereby raising the living standards of Europe. For example, it would eliminate the transaction costs of changing one currency into another, which would benefit both consumers and producers. Additional economic benefits included lowering the cost of trading goods by removing exchange rate risk and currency conversion fees and, by facilitating price comparisons of goods and services across national borders. Cost savings that arise from greater competition also induce direct investment from non-Eurozone countries as foreign firms attempt to locate facilities within the Eurozone area to access a larger market. Proponents of the EMU also wanted the euro to become one of the reserve currencies of international finance, alongside the dollar and the yen.⁹

The now 17 members of the Eurozone have considerable economic heft. Comprising some 320 million people, the gross domestic product (GDP) of the entire Eurozone area was \$13.6 trillion in 2008,¹⁰ or about 22% of world GDP. By comparison, the GDP of the United States in 2008 was slightly larger at \$14.1 trillion. Within the Eurozone, economic weight is heavily concentrated in a few large countries. More than 77% of the Eurozone's total GDP is accounted for by just four countries (Germany, France, Italy, and Spain). In contrast, the Eurozone's five smallest countries (in decreasing size: Slovakia, Slovenia, Luxembourg, Cyprus, and Malta) accounted for less than 2% of the Eurozone's overall GDP in the same year.

The Eurozone is also a major player in the world economy. As a whole, it accounted for 29% of total world exports; 28% of world imports; and 23% of world net inflows of foreign direct investment (FDI) in 2008.¹¹ The United States also has a strong bilateral economic relationship with the Eurozone.¹² With respect to trade, U.S. exports to Eurozone members totaled \$162.7 billion in 2009, representing 15% of total U.S. exports. Likewise, the value of U.S. imports from

⁸ Katina Borsch, "Germany, The Euro and Politics of the Bail-out," *Centre for European Reform*, Briefing Note, June 2010.

⁹ For further background on the economic costs and benefits of monetary union with a focus on the EMU, see Paul De Grauwe, *Economics of Monetary Union* (Oxford: Oxford University Press, 2009).

¹⁰ World Bank's World Development Indicators database. Data in current US\$.

¹¹ World Bank's World Development Indicators database. Data in current US\$.

¹² For more on the bilateral economic relationship between the United States and the EU, see CRS Report RL30608, *EU-U.S. Economic Ties: Framework, Scope, and Magnitude*, by William H. Cooper.

the Eurozone in 2009 was \$216.5 billion, or 13% of total U.S. imports.¹³ In terms of capital flows, U.S. investors on net repatriated \$128.2 billion dollars from the Eurozone in 2009.¹⁴

Key Provisions of the EMU

The blueprint for the EMU was formalized in provisions of the 1992 Maastricht Treaty, the founding document of the present-day European Union. The Treaty established the conditions, or “convergence criteria,” that countries are required to meet before they join the EMU.¹⁵ By requiring the members to adhere to similar economic policies, the convergence criteria are meant to promote a more balanced economic growth and development among the various members of the Eurozone. This, in turn, was thought to make it easier for diverse economies to share a single currency.

EU Treaties

The Treaty on European Union (TEU or the Maastricht Treaty) is the founding document of the modern European Union. Together, the TEU and the 1957 Treaty establishing the European Economic Community (also known as the Rome Treaty or the EEC Treaty, and recently re-named the Treaty on the Functioning of the European Union, or TFEU) define the objectives and principles of the EU and set out the EU’s institutional architecture and organizational rules. The Lisbon Treaty, which entered into force in December 2009, is the most recent treaty amending these documents.

Consolidated versions of the TEU and the TFEU are available in the Official Journal of the European Union, March 30, 2010, available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:083:FULL:EN:PDF>

As an integral part of the EMU, a European Central Bank (ECB) was established to set monetary policy independent of any political influence. The ECB together with the central banks of all the members of the European Union form the European System of Central Banks, or ESCB, which is charged by statute with maintaining price stability as its primary objective. The formulation of price stability as a primary ESCB objective, compared to the U.S. Federal Reserve’s multiple mandates of price stability, full employment, and moderate long-term interest rates, was a German pre-condition for sacrificing the Deutsche mark.¹⁶

There was no provision in the Maastricht Treaty to allow the ECB to act as a lender of last resort to Eurozone members in the case of a financial crisis. According to the EMU’s design, each member must finance its deficits by itself. A “no-bail-out” clause explicitly stipulates that neither the European Union nor any member state is liable for or can assume the debts of any other

¹³ Cost-in-freight data.

¹⁴ U.S. Department of Commerce, Bureau of Economic Analysis, <http://www.bea.gov>.

¹⁵ To participate in the initial formation of the EMU, each member had to meet the following five convergence criteria by 1998: (1) national legislation governing the country’s financial system had to be compatible with the treaty provisions controlling the European System of Central Banks; (2) a rate of inflation within 1.5% of the rates in the three participating countries with the lowest rates; (3) reduction of its government deficits to below 3% of its gross national product; (4) currency exchange rates within the limits defined by the Exchange Rate Mechanism (ERM) (an intermediary step toward a single currency that attempted to stabilize exchange rates by fixing rates through variable bands) for at least two years; and (5) interest rates within 2% of the rates in the three participating countries with the lowest rates.

¹⁶ Paul De Grouse, *Economics of Monetary Union*.

member state.¹⁷ However, EU financial assistance is allowed in case of “severe difficulties caused by natural disasters or exceptional occurrences beyond the control of a member state.”¹⁸

For the mutual assurance and stability of the currency, all members are constrained in their ability to adopt independent fiscal policies by the Protocol on Excessive Deficit Procedure (EDP) and the Stability and Growth Pact (SGP). The EDP is a procedure under which member states are obliged to avoid excessive deficits in national budgets.¹⁹ The SGP, agreed to in 1997, was intended to deepen multilateral surveillance and “speed up and clarify” implementation of the EDP.²⁰

Soon after the SGP took effect in 1999, EU members began criticizing the rules-based approach of the Pact for being too stringent and they questioned whether the rules could be enforced. In 2003, the weaknesses of the Pact were exposed when the European Council voted against applying the punitive procedures under the EDP to France and Germany, which had experienced rising levels of government debt. Some EU members argued that the Pact focused too heavily on the rules-based percentage guidelines without regard for the circumstances under which a government’s level of debt or its deficit spending may rise, for instance as a result of a temporary increase in government spending to counter an economic downturn.²¹

In 2005, the EU members adopted a number of changes to the Stability and Growth Pact. These changes made enforcement more flexible to take into account the economic conditions of the member states, and other factors. For example, the modified Pact provides for each EU member to develop its own medium-term objectives to bring its deficit spending and its debt level into compliance based on the unique economic conditions of each member. The changes also allow EU members to avoid the corrective measures in cases where their annual fiscal deficit exceeds

¹⁷ Article 125 TFEU is often referred to as the EU’s “no-bailout” clause. It states:

The Union shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of any Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project. A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project.

¹⁸European leaders drew reference to these exceptions (Article 122(2) TFEU) in crafting new crisis management facilities. They explicitly based the bailout actions on the grounds that the debt crisis endangered the solvency of entire states and posed a serious threat to the euro and financial stability of the monetary union. For a contrary view that the euro was endangered by the crisis, see Hans-Werner Sinn, “Rescuing Europe,” *CWSifo Forum*, Volume 1, August 2010. Sinn argues that the bailout was engineered primarily to protect French, and to a lesser extent, German banks.

¹⁹ The Protocol on Excessive Deficit Procedure established a mechanism for countries to meet the specific guidelines that are applied under Article 104 of the Maastricht Treaty. Under this protocol, EU members are expected to have an annual budget deficit no greater than 3% of GDP at market prices and government debt no more than an amount equivalent to 60% of GDP.

²⁰ The Stability and Growth Pact (SGP) is an agreement by European Union members to conduct their fiscal policy in a manner that facilitates and maintains the EMU. The Pact is based on Articles 99 and 104 of the Maastricht Treaty, and related decisions. It consists of (1) a political commitment by all parties involved in the SGP to the full and timely implementation of the budget surveillance process; (2) regular surveillance aimed at preventing budget deficits from going above the 3% reference value; and (3) corrective elements which require member states to take immediate action when the 3% reference value is breached or face the imposition of sanctions.

²¹ Beetsma, Roel M.W.J., and Xavier Debrun, *Implementing the Stability and Growth Pact: Enforcement and Procedural Flexibility*, IMF Working Paper WP/05/59, International Monetary Fund, March 2005.

3% of GDP, if they can demonstrate that the deficit is caused by “exceptional and temporary” circumstances.

Design Challenges

From the start of the euro area, various academics and policymakers argued that a single currency for many different economies would face numerous challenges and some even argued that it was bound to fail. According to these critics, a big weakness of the project was the lack of a common fiscal policy to support it. This, in turn reflected the fact that it was a currency with a central bank but without a government that has taxation and spending authority. The creation of the euro also meant that members of the Eurozone lost their ability to use monetary and exchange rate policy tools as a way to respond to changes in economic conditions.²²

The loss of monetary and exchange rate tools, combined with a lack of a common fiscal policy, creates vulnerabilities and tensions because members of the Eurozone are constrained in how they respond to economic shocks such as a recession. Countries are different and in a recession are likely to experience different unemployment rates. In a currency union, the central bank will set a common interest rate that may end up too high for the high unemployment country, resulting in lost employment and output, and too low for the low unemployment country, resulting in excess spending and consumption, and exacerbating the business cycle in both countries.

Despite these costs, joining a currency union may be advantageous as long as there are adjustment mechanisms that ensure that the benefits of membership such as lower transaction costs and exchange rate certainty exceed the costs. These adjustment mechanisms, in the absence of a common federal budget and robust transfer mechanisms from countries experiencing booms to the countries experiencing recessions, include labor and capital mobility and wage and price flexibility. For example, the unemployment disparities could be reduced if workers from a country with high unemployment relocated to the one with low unemployment. Or, relative labor costs could fall in the high unemployment country to attract investment and create new jobs. In the absence of viable adjustment mechanisms, there are likely to be strains and tensions within a currency union.²³

The functioning of the dollar in the U.S. economy, despite major differences among its fifty states, is facilitated by adjustment mechanisms that are either absent or deficient in the Eurozone. For example, U.S. unemployed workers move much more freely from Maine to Minnesota than do European unemployed workers move from Spain to Slovenia because of differences in language and regulations. Prices of basic consumer durables vary little among the U.S. states but can be substantial among the members of the Eurozone. And the federal government in Washington collects roughly two-thirds of all taxes and provides net fiscal transfers to states with temporarily falling incomes. No such substantial fiscal transfers occur in the Eurozone.²⁴

Just as critical to lacking a common federal budget to transfer resources from countries experiencing booms to countries experiencing recessions, the single currency can weaken the

²²Martin Feldstein, “The Euro’s Fundamental Flaws,” *The International Economy*, Spring 2010, p. 11.

²³Faltin, Dirk, and Katherine Klingensmith, “Eurozone Economics: The Future of the Euro in Jeopardy,” *UBS Wealth Management Research*, July 13, 2010.

²⁴Martin Feldstein, p.12.

market signals that would otherwise warn a member that its fiscal deficits were becoming excessive. When a country with excessive deficits needs to raise taxes and cut government spending, as many Eurozone countries need to now, the resulting contraction in output and employment cannot be moderated by a devaluation that increases exports and decreases imports. These shortcomings or design flaws inherent in the architecture of the currency union played a role in the sovereign debt crisis that hit Greece and several other Eurozone members in early 2010 and are discussed in the next section.

Economic Imbalances and Adjustment Mechanisms within the Eurozone

At the time of the euro's launch in 1999, a number of economists predicted that the monetary union would not survive because of shortcomings in its architecture. This section describes (1) the persistent economic imbalances that are at the heart of the current crisis; and (2) how the imbalances are related to the institutional constraints of the monetary union itself, particularly the lack of adequate adjustment mechanisms.

Imbalances within the Eurozone

When the euro was introduced, many economists expected that the national economies within the Eurozone would achieve additional convergence. However, many of the Eurozone economies have remained quite different or have actually diverged in a number of economic dimensions over the past decade. This divergence is generally thought to have occurred broadly between two groups of countries within the Eurozone: the Northern European countries, including Austria, Belgium, Germany, Finland, France, Luxembourg, and the Netherlands; and a group of mostly Southern European countries, including Greece, Ireland, Italy, Portugal, and Spain. These latter five countries are referred by the acronym "GIIPS" throughout this report.

Figure 1 shows average economic trends in these two groups of countries over the past decade. Prior to the outbreak of the global financial crisis in 2008, the GIIPS experienced higher rates of economic growth on average than the Northern European countries. However, the GIIPS also generally experienced faster growth in prices (inflation), including faster growth in the compensation for workers (adjusted for differences in worker productivity). This resulted in a loss of industrial competitiveness for the GIIPS and an increase in industrial competitiveness for the Northern European countries. As a result, the GIIPS on average ran trade deficits, while the Northern European countries generally ran large trade surpluses. The GIIPS also generally ran larger government budget deficits (relative to GDP) and accumulated higher levels of government debt (relative to GDP) than Northern European countries.

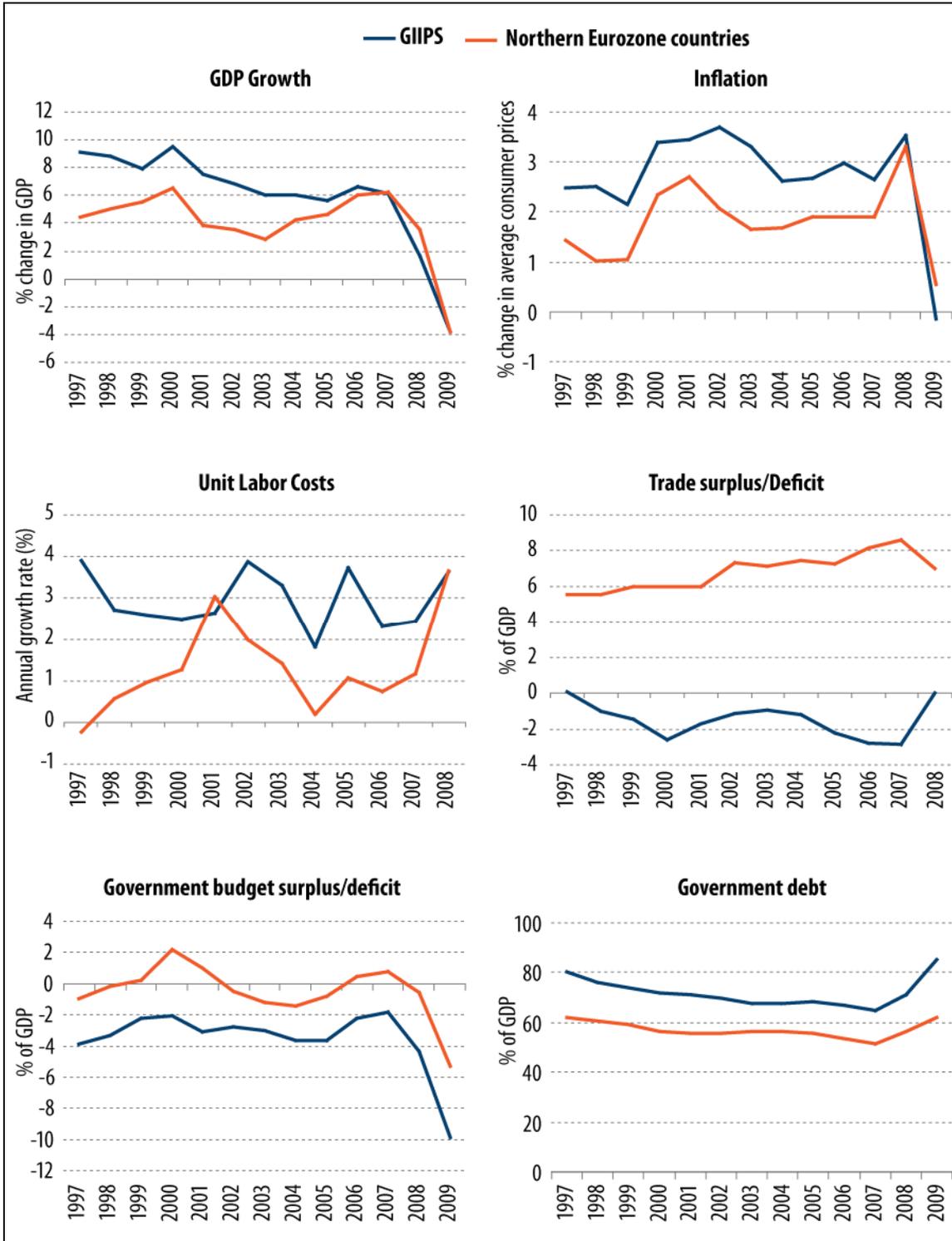
Much of the money that the GIIPS borrowed to finance trade and budget deficits came from banks located in the Eurozone, particularly French and German banks.²⁵ The exposure of French and German banks to the GIIPS rose from \$357.2 billion in December 1999 to \$1.6 trillion in

²⁵ Bank for International Settlements (BIS), *International Banking and Financial Market Developments*, BIS Quarterly Review, June 2010, http://www.bis.org/publ/qtrpdf/r_qt1006.pdf.

December 2009, an increase of more than 450%.²⁶ These sums, in turn, are in part a mirror image of the GIIPS and Northern European countries where the net borrowers are being financed by the net savers.

²⁶ Bank for International Settlements (BIS), “Consolidated International Claims of BIS Reporting Banks,” Publication data up to 2009Q4, June 2010, Table 9B: Consolidated Foreign Claims of Reporting Banks - Immediate Borrower Basis, <http://www.bis.org/statistics/constats.htm>.

Figure I. Economic Trends in the Eurozone



Source: GDP and inflation data are from the IMF's World Economic Outlook database. Unit labor cost are from the Source OECD database. Trade data is from the World Bank's World Development Indicators. Budget and debt data are from European Commission, Directorate General Economic and Financial Affairs, *General Government Data, Part II: Tables by Series*, Spring 2010, http://ec.europa.eu/economy_finance/db_indicators/gen_gov_data/documents/2010/spring2010_series_en.pdf.

Notes: GIIPS refers to Greece, Ireland, Italy, Portugal, and Spain. Northern Eurozone countries include Austria, Belgium, Germany, Finland, France, Luxembourg, and the Netherlands. Four countries that have joined the Euro zone in 2007 or later (Cyprus, Malta, Slovenia, and Slovakia) are not included. Unweighted averages used. Unit labor costs (for the total economy) were used. Trade data are for goods and services. Budget data are for general government (central, state, and local levels) as a percentage of GDP at market prices. Debt data are general government (central, state, and local levels) consolidated gross debt as a percentage of GDP at market prices.

Adjustment Mechanisms

Differences between the economies of Northern Europe and the GIIPS can be attributed to a number of factors, including policy choices.²⁷ For example, Germany's export-led economic strategy and commitment to wage moderation is often cited as a factor for its low costs of production and trade surpluses.

However, many have suggested that the imbalances are caused by the institutional arrangements of the currency union itself and its inadequate adjustment mechanisms. This argument typically proceeds as follows:²⁸ After the GIIPS adopted the euro, investors viewed these countries as safer destinations for investment, and the interest rates paid by the GIIPS on their government bonds fell to the interest rates paid by Northern European countries. As a result, interest rates in the GIIPS were far too low, leading to distorted investment decisions and ultimately overinvestment in a number of sectors. As private sector borrowing and demand increased, the GIIPS launched investment projects to allow growth to take place with less inflation. This, in turn, required increased borrowing, particularly from banks in Northern European countries, and contributed to larger government budget deficits.

Capital inflows into the GIIPS fueled domestic demand, leading to high levels of growth, but also to inflation. Increasing prices in the GIIPS reduced their competitiveness, and consequently, caused the GIIPS to start running current account deficits (see **Figure 2**).²⁹ Each year's current account deficits added to the public and private aggregate debt of the GIIPS. As part of this process, the GIIPS accumulated foreign debt which rose close to 80% of GDP.³⁰

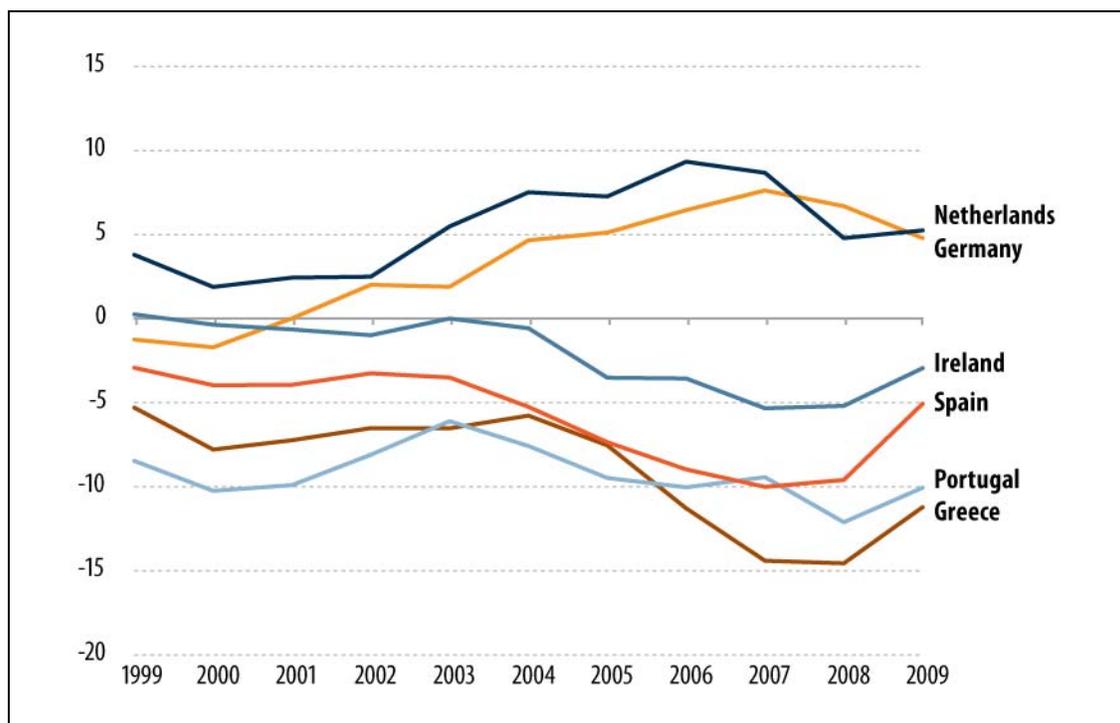
²⁷ Gilles Saint-Paul, "Is the Euro a Failure?", *VoxEU*, May 5, 2010.

²⁸ Uri Dadush and Bennett Stancil, "Europe's Debt Crisis: More than a Fiscal Problem," in *Paradigm Lost: The Euro in Crisis*, ed. Uri Dadush and Contributors (Carnegie Endowment for International Peace, 2010), pp. 9-15.

²⁹ The current account is the sum of the balance of trade (exports minus imports of goods and services), net factor income such as interest payments and dividends, and net transfer payments such as foreign aid. Measures to reduce a current account deficit usually involve increasing exports or decreasing imports. Economists tend to argue that this can be accomplished most effectively by increasing domestic savings or reducing borrowing of households and government.

³⁰ Dirk Faltin and Katherine Klingensmith, "Eurozone Economics: The Future of the Euro in Jeopardy," p. 6.

Figure 2. Selected European Current Account Balances
Percent of GDP



Source: International Monetary Fund

Meanwhile, most Northern European economies did not face dramatic reductions in their interest rates upon joining the Eurozone and did not have substantial increases in capital inflows. Combined with fiscal policies that aimed to contain domestic demand, the Northern European countries as a result had lower inflation and remained more competitive than their GIIPS counterparts. Partly due to their relative competitiveness, the Northern European countries were able to export to the GIIPS and run large current account trade surpluses.³¹

Some suggest that being in the Eurozone constrained the ability of the GIIPS governments to respond to growing divergences from the Northern European countries.³² For example, if the GIIPS had not been in the Eurozone, they could have reduced their trade deficits through currency depreciation. Likewise, these observers argue, the GIIPS could have raised interest rates to slow economic growth in response to a potentially over-heating economy. But for countries in the Eurozone, neither devaluation nor an increase in interest rates is an option.

The GIIPS did retain some control over their fiscal policy and could have reined in government spending or raised taxes in order to curb consumption. Such a policy could have freed up resources for payments to foreign creditors. However, as discussed previously, the low interest rates resulting from Eurozone membership increased the attractiveness of government deficit

³¹ Given that about 75% of all Eurozone trade constitutes exports of one Eurozone member to another (so-called "intra-Eurozone trade"), the trade surpluses of one Eurozone country or group of countries are to a large extent matched by the deficits of others.

³² Gilles Saint-Paul, "Is the Euro a Failure?", *VoxEU*, May 5, 2010.

spending, and the GIIPS countries generally borrowed, running budget deficits. Alternatively, given that inflation was twice as high in the GIIPS than the EMU average, real interest rates (i.e., nominal rates minus inflation) were extremely low, thereby discouraging savings and causing private firms and households to run up debt to finance consumption and housing construction, especially in Spain and Ireland.³³

Given their membership in the Eurozone, the GIIPS are left with using deflation (decreases in wages, incomes, and prices) in order to reduce their trade deficits. However, deflation may have little beneficial effect on the foreign debt positions of most of the GIIPS if they all pursue the same strategy simultaneously. This is because the negative effects on economic growth and employment could be compounded, weakening the economies of the GIIPS to the point where their debt-to-GDP ratios continue to rise.³⁴

In sum, the trade imbalances between the Northern countries and GIIPS provide evidence that the EMU's internal adjustment mechanisms are not working well. Whatever labor mobility and price flexibility that exists in the Eurozone, combined with limited fiscal transfers, did not prevent the accumulation of persistent trade imbalances and the sovereign debt crisis. While improved labor mobility and price flexibility may be long-term solutions, European leaders and institutions are now considering a range of proposals to increase fiscal coordination and integration as the best way to shore-up the EMU's institutional shortcomings.

Eurozone Crisis Measures and Reform Proposals

Beginning in May 2010, European leaders and institutions adopted an unprecedented package of emergency measures to halt rising financial market tensions stemming from concern about the fiscal solvency of Greece and several other Eurozone countries. This section first discusses the emergency crisis measures adopted by EU national governments and European institutions to defuse the crisis. It then discusses reform proposals for economic governance and economic policies.

Emergency Crisis Measures

Since the start of the Eurozone crisis, member governments have created a €110 billion finance assistance program for Greece, a €60 billion European Financial Stabilization Mechanism (EFSM), and a €440 billion European financial stability facility (EFSF). Each facility is described below along with the roles played by the IMF and the ECB in crisis management. These measures are summarized below in **Table 1**.

³³ Dick Faltin and Katherine Klingensmith, "Eurozone Economics: The Future of the Euro In Jeopardy," p.5.

³⁴ Ibid., p. 8.

Table I. Eurozone Emergency Crisis Measures

EU Loan to Greece	€80 billion
IMF Loan to Greece	€30 billion
European Financial Stability Facility (EFSF)	€440 billion
European Financial Stability Mechanism (EFSM)	€60 billion
Potential IMF contribution	€250 billion
ECB Purchases of Government Bonds	€61 billion (through September 8, 2010)

Sources: ECB, EU, IMF

Greece Package

On May 2, 2010, the Eurozone member states and the IMF announced a three-year, €110 billion financial assistance package for Greece (€80 billion from member states and €30 billion from the IMF). The Eurozone member states are providing assistance to Greece on a bilateral basis with the European Commission tasked exclusively with coordinating and managing the loans. Eurozone member state loans to Greece are structured bilaterally because at the time of the agreement, there was no EU-level mechanism to provide balance of payments support to a Eurozone member country. In exchange for the financial assistance, the Greek government has pledged to reduce Greece's government budget deficit from 13.6% of GDP in 2009 to below 3% by 2014. The IMF has referred to this program as unprecedented in terms of the adjustment effort required by the government.³⁵

Despite the announcement of the Greek package on May 2, 2010, financial market pressures continued to worsen over the ensuing days as the value of the euro declined, stock markets declined, and bond spreads of several southern European countries widened sharply over the following weeks. On May 10, 2010, EU officials announced a rescue package of up to €750 billion to restore confidence in EMU members' fiscal sustainability. This consists of two new European financing entities, the European Financial Stability Mechanism (EFSM) and the European Financial Stability Facility (EFSF). The IMF is also expected to make contributions as well as play a coordinating role, as it has much expertise in financial surveillance and putting together sovereign debt packages.

European Financial Stability Mechanism

The EFSM is a new €60 billion supranational EU balance of payments loan facility available to any EU member country facing financial difficulties. It is similar in design to an existing €50 billion EU balance of payments facility that can only be drawn on by non-Eurozone EU member nations.³⁶ Since 2008, Hungary, Latvia, and Romania have borrowed from this facility as part of joint EU-IMF economic adjustment programs.

Under the new EFSM, the European Commission is allowed to raise up to an additional €60 billion on the international capital market by issuing bonds individually and collectively backed

³⁵ IMF, "Frequently Asked Questions: Greece," May 11, 2010, <http://www.imf.org/external/np/exr/faq/greecefaqs.htm>.

³⁶ The current balance of payments facility was created under Article 143 of the Lisbon Treaty, which limits assistance to "member states with a derogation," i.e., those outside the Eurozone.

by all 27 EU member states.³⁷ EFSM loans require a qualified majority vote of the Council of the EU. The borrowing nation would be subject to economic conditionality supervised by the European Commission, which would decide at regular intervals whether sufficient economic progress has been made to warrant the continued release of funds. Funds are available immediately and there is no sunset date for the EFSM. To date, no country has requested funds from the EFSM.

European Financial Stability Facility

European leaders decided to provide the majority of the rescue package, up to €440 billion, in a temporary three-year crisis prevention facility, the so-called European Financial Stability Facility (EFSF), outside of the EU system. The EFSF has been established under Luxembourg law as a limited liability corporation.³⁸ This allows participating countries to have greater discretion over the use of the facility's resources—decisions are made by a board of directors from participating countries instead of the European Commission—and to limit their liability to the amount of their individual guarantee. The amount of a country's guarantee is to be derived from their respective contributions to the paid-in capital of the ECB.

If a country needs to borrow from the facility, it can leave the EFSF for a period of time per unanimous agreement of the remaining participants. This agreement has already been reached for Greece. Eurozone member states have committed to provide a 120% guarantee of their share to ensure sufficient capital in case other countries need it. It is expected that this facility will be used only under strict conditions of conditionality in order to minimize the risk of moral hazard.³⁹

As it is currently structured, the EFSF is a temporary facility that will expire in 2013. Whether this crisis mechanism, which may operate as a Eurozone version of the IMF, should be made permanent is the subject of on-going discussions. The procedures or criteria that will be used to identify circumstances under which countries will be allowed to borrow from the facility is also a work in progress.

Participation of the International Monetary Fund

The IMF is expected to participate in any loans made by the EFSM and EFSF, and to provide at least half as much as the EU contribution, potentially up to €250 billion (half of the combined €60 billion EFSM and €440 billion EFSF).⁴⁰ The IMF, however, cannot pre-commit funds for a group of countries. Any IMF contributions to loan packages for Eurozone members will be on a country-by-country basis. Any such loan would also be subject to the approval of the IMF Executive Board in the same manner as all IMF lending arrangements.

³⁷ Council Regulation (EU) No. 407/2010 of 11 May 2010 establishing a European financial stabilization mechanism. Official Journal of the European Union, December 5, 2010. L 118/1.

³⁸ Council of the European Union, Press Release, Extraordinary Council Meeting, Economic and Financial Affairs, Brussels, May 9/10, 2010.

³⁹ Deutsche Bank Research, "European Governance: What does the future hold,?" August 6, 2010. Moral hazard is a term that refers to situations when a party insulated from risk behaves differently than it would behave if it were fully exposed to the risk.

⁴⁰ Ibid.

In the case of the EFSF, the IMF is to play a role in determining whether a country's fiscal situation merits assistance. If it does, the IMF must also approve a consolidation plan.

European Central Bank Response

Along with the creation of the EFSM and the EFSF, the European Central Bank has implemented several crisis-response measures to improve European financial stability. Arguably the most important of these measures is the ECB's decision to purchase European sovereign debt outright in the secondary markets. This was a significant policy reversal for the ECB, which had long viewed interventions in sovereign debt markets as compromising its independence, and a diversion from its core mandate of price stability. However, as it required several months to legally establish the EFSM and the EFSF, the ECB was able to provide immediate support following the worsening of the crisis in early May. The ECB began interventions on May 10, 2010, purchasing €16.5 billion of Eurozone sovereign debt.⁴¹ As of July 20, 2010, the ECB held around €60 billion of European government bonds.⁴²

The ECB also created a collateral waiver for Greece so that Greek sovereign debt can be used as collateral for loans to the European banking system. Under previous rules, Greek bonds would no longer have been accepted by the ECB, putting additional pressure on the European banking system.

Other ECB policy measures include the reactivation of temporary liquidity swap lines with the U.S. Federal Reserve. In addition to the ECB, the Fed re-activated temporary reciprocal currency agreements, known as swap lines, with the Bank of Canada, the Bank of England, Bank of Japan, and the Swiss National Bank.⁴³ The swap lines with the Federal Reserve provide foreign central banks with a source of dollar financing should such immediate liquidity be needed. Since their reactivation, the use of these swap lines has been very limited.

Ireland Package

Notwithstanding the announcements of the EFSM and the EFSF in May 2010, during the fall 2010, the uncertain outlook for government budgets in Ireland and some other Eurozone countries again became a concern. On November 28, 2010, European and IMF authorities announced a three-year, €85bn (\$112 billion) assistance package for Ireland. Of the total amount, €10bn will be available for the immediate recapitalization of the banking sector, €25bn will be set aside in a contingency fund, and the remaining €50bn will be available in the event that the Irish government is unable to raise money in the capital markets in 2011. Table X provides a breakdown of the loan and a text box provides information on the two European facilities.

⁴¹ David Oakley, Peter Garnham, and Ralph Atkin, "ECB reveals €16.5bn bond purchases," *Financial Times*, May 17, 2010.

⁴² Andrew Ross Sorkin, "ECB Winds Down Debt Purchases," *New York Times*, July 20, 2010.

⁴³ In response to the beginnings of the recent financial crisis, similar swap lines were established in December 2007 and expired in February 2010. On the re-establishment of these lines, see Federal Reserve, "Federal Reserve, European Central Bank, Bank of Canada, Bank of England, and Swiss National Bank Announce Reestablishment of Temporary U.S. Dollar Liquidity Swap Facilities," <http://www.federalreserve.gov/newsevents/press/monetary/20100509a.htm> and Federal Reserve, "FOMC Authorizes Re-establishment of Temporary U.S. Dollar Liquidity Swap Arrangement with the Bank of Japan," <http://www.federalreserve.gov/newsevents/press/monetary/20100510a.htm>.

Table 2. The EU/IMF Irish Loan

Source of Financing	Billions of Euros
Total Program Value	85.0
Of which:	
Contributions from Ireland	17.5
IMF	22.5
European Financial Stability Mechanism	22.5
European Financial Stability Facility	17.7
United Kingdom	3.8
Sweden	0.6
Denmark	0.4

Source: EU Commission

Economic Governance Reforms

Crisis response measures have succeeded in stabilizing financial markets, but they are temporary measures that do not address fundamental weaknesses in the architecture of the EMU. The temporary measures, however, have provided European leaders with time to consider changes in the governance of the currency union. Initial agreement has been reached on a permanent EU crisis fund. Proposals have also focused on developing more effective means of coordinating national fiscal policies and on promoting faster and more balanced growth. These are described briefly below.

Fiscal Policy Reforms

As discussed earlier, there is pressure to reform the current framework for European fiscal policy coordination. On June 17, 2010, the Council of European Heads of State released a synopsis of current proposals for reform of the Stability and Growth Pact.⁴⁴ On surveillance, leaders agreed to give public debt and debt sustainability issues a more prominent role in budgetary surveillance. EU leaders agreed to a national budgets peer review system under which governments will submit to the European Commission draft budgets for peer review and coordination before they are finalized. EU leaders also agreed to sanctions, in principle, for countries with excessive debt levels, but did not specify what form these sanctions would take. France and Germany have proposed suspending the voting rights of European Union members who persistently exceed budget deficit limits, but neither the suspension of voting rights, nor automatic sanctions were agreed at the June 2010 European Council summit. The IMF has also argued that the European Union needs to strengthen the enforcement procedure, including sanctions, when countries are violating deficit limits.

On October 29, 2010, EU leaders announced agreement on a permanent crisis resolution mechanism to replace the €440 billion EFSF facility when it expires in 2013. Negotiations on the design of the so-called European Stability Mechanism (ESM) are ongoing, however, minor

⁴⁴ European Council, *European Council, Conclusions, 17 June 2010*, EUCO 13/10, Brussels, June 17, 2010.

changes in the Lisbon Treaty, required to allow for the creation of an EU institution to provide aid to a Eurozone country were agreed to in December 2010. According to the ESM proposal, private bondholders might have to share the burden of any future default by a Eurozone member. Private sector participation would not be automatic, but rather, decided on a case-by-case basis.

In addition, from 2013 onwards, all euro area government bonds will include collective action clauses (CACs), which allow a majority of bondholders to agree on a debt restructuring that would be binding for all bondholders. In the past, the absence of any international legal protection for bankrupt countries has complicated several previous defaults. CACs gained currency in 2003, following the failure of the IMF's Sovereign Debt Restructuring Mechanism proposal, which would have, broadly speaking, created a sovereign bankruptcy court. According to the ESM proposal, funds provided through the ESM will rank senior to private-sector holdings in any future restructuring.

It remains undecided which EU actor will decide whether the sovereign debt of a Eurozone country is unsustainable and needs to be restructured, and on what terms. While some analysts have proposed the European Commission as the deciding actor, others have pointed out that they would be inappropriate since EC, as well as the ECB and other European governments would likely be creditors and thus have a potential conflict of interest. Also to be decided is whether there will be guarantees provided on bondholders remaining principal after a restructuring.⁴⁵

Economic Growth Policies

Important for securing the long-term viability of the EMU is reversing several years of weak economic growth. The Economic Intelligence Unit forecasts a Eurozone economic growth rate at 0.7% for 2010 and 0.8% for 2011, while the IMF analysis forecasts GDP growth at around 1% in 2010, increasing only to 1.25% in 2011.⁴⁶ Because higher rates of economic growth may help avoid future debt crises, priority is being given to addressing structural problems such as labor and service sector barriers, as well as to macroeconomic policies and surveillance for promoting stronger and more balanced economic growth.

For all Eurozone countries, the ECB and the European Commission have stressed the importance in their view of pressing forward with difficult structural reforms that have prevented the completion of the European common market. Removing remaining trade barriers, especially in the services sector, is viewed by the ECB and the EC as being particularly important for increasing growth. According to the ECB, only 20% of services provided in the EU have a cross-border dimension. A full implementation of the European Commission's services liberalization proposals could increase EU GDP growth rates by 0.6-1.5 percentage points.⁴⁷ Other growth enhancing EU-wide reform efforts include promoting a common energy market and accelerating the implementation of new digital technologies in accordance with the objectives of the Europe 2020 growth strategy.

⁴⁵ Willem Buiter, Ebrahim Rahbari, Jurgen Michels, Giada Giani, *Chief Economist Essay – Sovereign Debt Crisis Update*, Citigroup Global Markets, November 29, 2010.

⁴⁶ International Monetary Fund, *Euro Area Policies: 2010 Article IV Consultation*, Washington, DC, July 2010.

⁴⁷ Lorenzo Bini Smaghi, *Imbalances and Sustainability in the Euro Area*, European Central Bank, Presentation at the ECB and its Watchers Conference, Frankfurt, July 9, 2010.

Proposals on stricter macroeconomic surveillance specify the use of a scorecard for assessing changes in competitive positions and flagging emerging macroeconomic imbalances in a timely fashion. While these proposals still need to be fleshed out, it is unclear how they will address the current account imbalances within the Eurozone. In this context, much concern and weight may be placed on Germany, the largest economy of the Eurozone, to increase internal demand and thereby buy more goods and services of the GIIPS as they become more competitive.⁴⁸ Recent movements in the exchange value of the euro are boosting exports from Eurozone countries, but the benefits are not being shared equally among the Eurozone members. Since movements in the exchange value of the euro do not affect the comparative levels of productivity among Eurozone members, those members with higher levels of productivity, such as Germany, tend to benefit the most. To the extent that other Eurozone members are similarly looking to spur their economic growth by increasing exports, they likely will provide little stimulus to Greece and Spain or to other Eurozone members.

From a different perspective, many Germans reject the notion that their exporting success and trade surpluses come at the expense of fellow Eurozone members. They argue that exports allow the German economy to grow faster, and in the process absorb more imports from their Eurozone neighbors. Furthermore, they maintain that other Eurozone countries, such as Greece and Spain, can increase their competitiveness just as Germany has done by cutting costs and making specialized products.⁴⁹

Possible Scenarios for the Future of the Eurozone

The current debt crisis has arguably posed the most fundamental challenge to the Eurozone since the euro was introduced a decade ago and has led to speculation about the future of the Eurozone. Three scenarios have typically been discussed: (1) the crisis leads to a splintering or break-up of the Eurozone, with one or more members abandoning the euro; (2) the Eurozone survives the crisis largely intact, without major reforms; and (3) substantial reforms to the Eurozone architecture are implemented, leading to greater economic and political integration. The outcome of the crisis will likely be influenced by a host of factors, including market confidence, commitments to reform packages, and the willingness of Eurozone member states to relinquish greater control over economic issues to the European level, among others.

Scenario 1. The Eurozone Breaks Apart

It was once considered unthinkable that countries would leave the Eurozone, but the debt crisis facing several southern European countries has raised the possibility that one or more countries could exit the Eurozone. Exiting the Eurozone would entail countries abandoning the euro as their national currency, issuing a new national currency, and allowing the new national currency to appreciate or depreciate against the euro.

⁴⁸ Michael Pettis, "The Risk of Another Global Trade War," *Financial Times*, August 24, 2010, p. 9.

⁴⁹ Christian Riermann, "How Germany's Export Strength Helps Its Neighbors," *Spiegel Online*, August 24, 2010.

Exit by One or More Southern European Countries

Typically, the discussion about the Eurozone breaking apart focuses on one or more southern European countries deciding to leave the Eurozone. There has also been some discussion about southern European countries being pushed out of the Eurozone by northern European countries. For example, as European leaders discussed the response to the Greek debt crisis, it is reported that in March 2010, German Chancellor Angela Merkel tacitly endorsed a proposal that would allow weak Eurozone member states to be “ejected” from the Eurozone.⁵⁰

Perhaps the strongest motivation for southern European countries to exit the Eurozone would be to allow their resulting new national currencies to depreciate against the euro. This would help the southern European countries regain competitiveness against the northern European countries, likely leading to an increase in their exports and a decrease in their imports. It is argued that a surge in exports would spur economic growth and offset the effects of the austerity measures being undertaken by southern European countries to pay down their debt. It is also thought that these new national currencies would help to correct the trade imbalances that have developed within the Eurozone and, as southern European countries borrowed to finance their trade deficits, that have contributed to the accumulation of debt in these countries over the past decade.

Exiting the Eurozone would involve potentially huge costs for the southern European economies, however, for at least four reasons. First, the debt of southern European countries is denominated in euros, and leaving the Eurozone in favor of a depreciated national currency could significantly raise the value of their debt in terms of national currency. Second, there are technical and legal obstacles to exiting the euro.⁵¹ Legislation would likely be required to issue the new national currency, and all contracts involving euros would have to be rewritten for the national currency. Numerous electronic machines involving euros, including computers, ATMs, and vending machines, would have to be reprogrammed or replaced, and new printing presses would be needed. Third, as investors and consumers anticipated that the new national currency would depreciate in value against the euro, massive capital flight from the country could trigger a major financial crisis in the country and put pressure on other vulnerable European countries. This could have negative impacts on economic growth, at least in the short run. According to one bank’s estimates, for example, a Greek exit from the Eurozone would push output 7.5 percentage points lower in 2011 than initially forecasted for Greece, and 1 percentage point lower for the other Eurozone countries.⁵² Fourth, leaving the Eurozone would likely also strain the country’s political relations with other countries in the European Union, and could possibly even lead to the country having to depart from the EU.

Exit by One or More Northern European Countries

Another variant of the Eurozone-breaking-apart scenario is exit by one or more northern European countries due to frustration with the current debt crisis.⁵³ When the Eurozone was created, there was concern among northern Eurozone members, particularly Germany, about the

⁵⁰ Jack Ewing, “Merkel Urges Tougher Rules for Euro Zone,” *New York Times*, March 17, 2010.

⁵¹ Barry Eichengreen, “The Euro: Love It or Leave It?,” *VoxEU*, November 17, 2007, <http://www.voxeu.org/index.php?q=node/729>.

⁵² Mark Cliffe, Maarten Leen, and Peter Vanden Houte, et al., *EMU Break-up: Quantifying the Unthinkable*, ING Financial Markets Research, June 7, 2010, p. 8.

⁵³ Gerard Baker, “Will Germany Leave the Euro?,” *The Spectator*, June 19, 2010, pp. 14-15.

commitment of the ECB to price stability and the commitment of the southern European countries to sustainable debt levels. Northern European countries did not want to be a “fiscal backstop” for the southern European countries.⁵⁴ To address these concerns, the ECB was created with the primary goal of price stability (compared, for example, to the U.S. Federal Reserve, which has a dual mandate of price stability and full employment), the legal text establishing the euro included a “no bail-out” clause, and limits were put in place on the governments’ overall outstanding debt levels (60% of GDP) and annual budget deficits (3% of GDP).

However, the current debt crisis has thrown these commitments into question. Some have argued that the ECB’s decision to buy Eurozone public debt represents a loss of independence for the central bank, and political support in some of the northern Eurozone countries for the financial assistance package for the vulnerable Eurozone countries has, at times, been ambivalent at best. Some have suggested that one or more northern European countries could exit the Eurozone in favor of a new national currency. In Germany, four academics are actively trying to challenge the constitutionality of Germany’s membership in the Eurozone in German courts.⁵⁵

Even if reverting to a new national currency could regain northern European countries greater control over their monetary policy and reduce their financial commitments to the southern European countries, leaving the Eurozone could be costly. A new national currency for one of the northern European countries would likely appreciate against the euro, complicating the export-led growth strategies that several northern European countries pursue. The northern Eurozone countries would also face the same technical, legal, and political challenges to exiting the euro that face the southern Eurozone countries, discussed above. However, some observers believe that banks in northern European countries, even with new national currencies, could still accept debt payments in euros from southern European countries without posing a risk to their solvency.⁵⁶ This scenario would also have significant repercussions for the EU and the future of European integration.

Scenario 2. The Eurozone Survives

A second possible scenario is that the Eurozone emerges from the crisis largely in its current form. The status quo in the Eurozone could be maintained if market pressures on vulnerable southern European countries are calmed by the magnitude of the financial assistance package, the ECB’s pledge to buy Eurozone public debt, and the introduction of new austerity packages in the southern Eurozone countries. The austerity and structural reforms could also successfully lower prices in southern European countries, reducing imbalances within the Eurozone and obviating the need for additional integration of fiscal policies at the Eurozone level. Some argue that the Eurozone could even survive a Greek debt restructuring, which some market participants believe is inevitable.⁵⁷ They argue that the financial assistance from the IMF and the other Eurozone member states will allow the restructuring to be delayed for a few years, when markets may be calmer and growth has been restored in other Eurozone member states. This could allow the

⁵⁴ Ibid.

⁵⁵ Wolfgang Proissi, “Why Germany Fell Out of Love with Europe,” *Brueghel Essay and Lecture Series*, July 2020, pp.15-17.

⁵⁶At the same time, the value of northern banks’ euro-denominated assets would still fall relative to their liabilities denominated in new currency.

⁵⁷ Peter Boockvar, “Greece Will Have To Restructure: Equity Strategist,” *CNBC*, June 28, 2010.

restructuring to be carried out in an orderly fashion that would not risk speculation against other Eurozone countries and could allow Greece to remain in the Eurozone.

Some have expressed concern that if the Eurozone does emerge from the crisis in its current form, the underlying problems with the architecture of the Eurozone that led to the current crisis would not be addressed. In this view, failure to address these issues, including coordination of fiscal policies at the European level and correction of the imbalances within the Eurozone that developed over the past 10 years, may mean that similar crises lie ahead. On the other hand, several financially vulnerable European countries, including Greece, Ireland, and Spain, have recently held successful bond offerings, suggesting that the crisis may be stabilizing. This might also be viewed as an indication that this second scenario, the Eurozone survives in its current form, may be a likely outcome.

The new institutional arrangements being proposed clearly fall short of a fiscal or political union that many economists believe is necessary to keep the currency union together, whether they will be sufficient to strengthen the euro area remains uncertain. Much could depend on whether financial markets have confidence in the soundness of the reforms implemented or whether markets are left wondering if reforms will lead to more sustainable fiscal positions. Perceptions on whether the Eurozone will be able to handle the next crisis more efficiently could determine the long-term survival of the EMU. Little support exists in Europe for proposals that would imply a significant transfer of spending and taxing powers to a central EU government and parliament. Today, the EU budget represents about 1% of EU GDP and proposals to boost that by even 0.1% consistently draw vetoes from several EU members.

Scenario 3. The Eurozone Becomes More Integrated

A third possible scenario is that substantial reforms to the Eurozone architecture are implemented, leading to greater economic and political integration. This scenario would entail implementing reforms to reduce fiscal free-riding and to enhance the ability of the Eurozone to respond to future crises, if and when they arise. Greater fiscal federalism and a clear mechanism to provide emergency financial assistance to vulnerable countries would also be a goal. Several proposals, as discussed in the previous section, are currently being developed and are under consideration that are intended to accomplish these goals, including review of national budgets at the European level, more stringent enforcement of the restrictions on debt and deficit levels under the Stability and Growth Pact (such as automatic enforcement of financial sanctions or revoking voting rights of member states in violation of the Stability and Growth Pact), and establishing a permanent fund to provide financial assistance to Eurozone members experiencing balance of payment problems.

To date, proposals are still in the early stages. Control over fiscal policies remains at the national level and financial assistance to Eurozone members is being made available on a temporary (three year) basis. Fiscal policies are an important issue of national sovereignty, and it remains to be seen whether, or to what extent, national governments in the Eurozone will be willing to concede control over national budgets to European authorities. Also, given the unpopularity of the financial assistance package for Greece and the broader support mechanisms for vulnerable Eurozone members with voters in northern European countries, it is unclear whether countries will be willing to commit, on a permanent basis, to providing financial assistance to Eurozone members in crisis.

Some observers argue for the creation of a solid framework for crisis resolution and an ability to deal with sovereign default by a member state. In this view, the principle that a member state cannot fail may imply a political or fiscal union to underpin the euro.⁵⁸ These observers might also argue that the EU should be able to issue sovereign debt. It is unclear, however, whether there is political will to do that.⁵⁹

Implications for U.S. Interests

Europe's response to the Eurozone crisis may affect U.S. economic and political interests in important ways. The Obama Administration, the Federal Reserve, and Congress have been engaged in monitoring and working towards an orderly resolution of the crisis. Initially, a major U.S. concern was that a sovereign default by Greece could have risked another wave of credit freeze-ups, instability in the European banking sector, and spill-over to U.S. and global financial markets. Currently, concern is centered on how slower growth and a weaker euro may affect the U.S. economy, as well as how the evolution of the currency union may affect U.S.-EU economic and political ties.

Economic Implications

Given the tightening of fiscal policies throughout the Eurozone in response to the crisis, some economists are predicting a continuing decline in the value of the euro vis-à-vis the dollar and slower growth over the next few years.⁶⁰ Over time, a stronger dollar relative to the euro would likely translate into an increase in the U.S. trade deficit with the Eurozone as European exports become cheaper and U.S. exports become more expensive. A larger U.S. trade deficit with the Eurozone, combined with expected increased in U.S. trade deficits with China and other Asian countries, could increase the U.S. current account deficit beyond its previous record of \$800 billion in 2006.

To maintain its economic recovery under these circumstances, the United States again may have to become the consumer and borrower of last resort (by running large budget deficits with debt-financed consumption sustained or facilitated by huge inflows of foreign purchases of Treasury bills, thereby facilitating low interest rates). Under this scenario, the strategy for global rebalancing of production and consumption agreed to by the Group of 20 at its last few meetings might not be realized and protectionist pressures in the United States, with unemployment remaining high, could rise.⁶¹ Low interest rates could, at the same time, facilitate Treasury Department efforts to finance high U.S. debt levels.

A weaker euro would also likely have some effects on U.S.-Eurozone foreign direct investment flows. Currently, Eurozone countries account for 26% of all U.S. direct investment abroad and for 44% of all foreign direct investment in the United States. Based on slower projected growth rates

⁵⁸ Daniel Gros, "Are the Barbarians at the EU's Gates?" *Europeanvoice.com*, May 25, 2010.

⁵⁹ Zsolt Darvas, "Fiscal Federalism in Crisis: Lessons for Europe from the US," *Bruegel Policy Contribution*, Issue 2010/07, July 2010.

⁶⁰ The euro, for example, has depreciated by 15% against the dollar between December 12, 2009 and August 13, 2010 (from 1.51 \$/€ to 1.28\$/€).

⁶¹ Fred Bergsten, "New Imbalances Will Threaten Global Recovery," *Financial Times*, June 10, 2010.

in Europe, U.S. investors may look towards emerging markets for additional investments, particularly since profits generated in euros would translate into fewer dollars, hurting the bottom line of U.S. parent companies. An offsetting factor could be that European stocks and assets with a weaker euro would look cheaper and more attractive, particularly given that the average European stock currently sells for ten times estimated 2010 earnings -- the lowest valuations based on expected earnings since the 1980s and at a level that is 25% less than the average of U.S. stocks.⁶²

The economic impact could be much more substantial if the Eurozone were to break-up or splinter due to a deepening sovereign debt crisis. By one estimate, a complete break-up of the Eurozone could lead to a 10% cumulative loss of output over the first two years.⁶³ Combined with a likely adverse impact on the functioning of the EU's single market, U.S. exports of goods, services, and investment to Europe (which totaled over \$1.5 billion in 2008) could be significantly reduced. Moreover, such a development could also weaken heavily-exposed European banks, particularly French and German banks, and precipitate another global financial crisis.⁶⁴

At the same time, it is also possible that current difficulties the U.S. economy is facing—slower than expected economic growth and high unemployment—could combine with a better than expected growth performance in Europe to dilute the pressures for a weaker euro. The Eurozone economy, for example, grew faster than the U.S. economy (1% compared to 0.4%) in the second quarter of this year.⁶⁵ Given that many different factors affect relative exchange rates, predictions of long-term changes are often inaccurate.

Political Implications

Over the years, a key U.S. political interest has been a prosperous, peaceful and stable Europe. In support of this interest, successive U.S. administrations have supported European efforts at economic and political integration. U.S. policy on the euro and the EMU has generally been that if it is good for Europe, it will be good for the United States. For example, on January 4, 1999, then President Clinton issued the following statement:⁶⁶

We welcome the launch of the Euro, an historic step that 11 nations have taken toward a more complete Economic and Monetary Union (EMU). The United States has long advocated for European integration, and we admire the steady progress that Europe has demonstrated in taking the often difficult budget decisions that make this union possible. A strong and stable Europe, with open markets and robust growth, is good for America and good for the world. A successful economic union that contributes to a dynamic Europe is clearly in our long-term interests.

Given this history, if the Eurozone emerges from the crisis close to its present form or even stronger than before, strong U.S.-EU political ties are likely to continue. Only in the possible

⁶² Jeremy J. Siegel, "Upside of the Euro Crisis," *Kiplinger's Personal Finance*, July 5, 2010.

⁶³ ING Global Economics, "EMU Break-up: Quantifying the Unthinkable," July 7, 2010.

⁶⁴ Desmond Lachman, "Euro Will Unravel, and Soon," *American Enterprise Institute for Public Policy Research*, No. 2, September 2010.

⁶⁵ BBC Business News, "Eurozone growth of 1% confirmed," September 2, 2010.

⁶⁶ Website: [<http://clinton6.nara.gov/1999/01/1999-01-04-statement-by-the-president-on-the-launch-of-the-euro.html>]

scenario of the Eurozone breaking apart are the effects likely to raise questions about the status quo. Major challenges to political ties could emerge if a break-up of the Eurozone were accompanied by growing divisions between key European countries, economic and social turmoil in selected countries, or a return to more nationalistic policies. The Obama Administration, like previous administrations, believes that a prosperous, secure, and increasingly integrated Europe that is capable of partnering with the United States in addressing mutual policy challenges is in the U.S. interest. On the other hand, it might also be argued that if a break-up were to occur, the United States might have greater influence with individual members of the EU. Those who held this view might also argue that a break-up could make the EU less of a rival to the United States.

Concluding Observations

The Eurozone crisis has highlighted cracks in the architecture of the currency union. Efforts to make the currency union more stable and sustainable in the long run represent one of the most fundamental challenges European leaders have faced in an over 50-year effort to advance political and economic integration. The U.S. stake in the outcome of these efforts, given the magnitude of U.S. economic and political ties with Europe, is considerable.

European proposals to date to reform the currency union center heavily on increasing fiscal coordination and integration in ways that do not surrender members' autonomy to make their own spending and tax decisions to a supra-EU entity. Rather, the proposals seek to strengthen current Stability and Growth Pact rules, partly through some form of sanctions, and to provide more policy coordination on budgets and other fiscal matters. Backed by the creation of liquidity facilities and the continued active involvement of the ECB in crisis management, European leaders may have a limited period of time to calm financial markets and bolster confidence in the currency union.

Whether the currently contemplated reforms prove sufficient to ensure the sustainability and viability of the currency union is unclear. A number of factors and developments could either bolster or destabilize the currency union in the years ahead.

Factors and developments that could bolster the Eurozone include the following:

- Given that the EMU is largely a political undertaking and a major symbol of European integration, European leaders and elites may be highly motivated to keep the EMU intact.
- The proposals under consideration introduce institutions and policies that represent somewhat higher levels of integration and commitment to budgetary discipline—elements that are considered necessary to rebuild market confidence in the euro for the future.
- The creation of the European Stability Mechanism (ESM) to replace the EFSF after 2013 provides a permanent facility to ensure fiscal and financial stability in the Eurozone.
- The ECB has demonstrated willingness to help members in fiscal distress, and it has the tools to continue playing an active role in crisis management.

- The rescue program put into place basically overturned the “no-bailout” rule of the EMU, making states, at least in theory, mutually liable for the sovereign debt of fellow Eurozone members.
- The acceptance by European policymakers of IMF involvement in managing any future fiscal crises reinforces the fiscal insurance mechanism provided by the EFSF.
- Proposed reforms of labor and product markets in all Eurozone countries, combined with stronger fiscal discipline, will improve the potential for economic growth and strengthen the euro in the long run.

Factors and possible developments that could weaken the sustainability of the currency union in its current form include the following:

- Partial solutions proposed to date create a moral hazard; if heavily indebted countries think they will receive financial assistance from the EFSF, they may have few incentives to get their fiscal houses in order.
- A default or rescheduling of Greek, Irish, or Portuguese debt, which many analysts maintain is possible, could pose contagion effects on other highly-indebted Eurozone countries.
- In the event of a possible sovereign default or defaults by Eurozone members, public support in some of the Eurozone members for continued funding of the EFSF could decline.
- Fiscal measures and shared responsibility for defaults could lead to divisions among Eurozone members, causing some members to reconsider the costs and benefits of membership.
- Persistent current account imbalances within the Eurozone, perhaps even more than the build-up of debt, can over the long-term become a challenge to the future stability of the Eurozone.
- The problem of current account imbalances may be complicated in the future by the proposed entry of mostly smaller and poorer countries into the EMU.
- Greater labor mobility and wage flexibility may not prevent the accumulation of persistent economic imbalances that led to the crisis and threaten the existence of the EMU.
- The fundamental problem of countries at very different levels of development living with a single monetary policy and a single exchange rate will remain.

Table 3. Glossary of Terms

Term	Definition
Broad Economic Policy Guidelines (BEPG)	The <i>Broad Economic Policy Guidelines (BEPGs)</i> are adopted by the Council as a reference document guiding the conduct of the whole range of economic policies in the Member States and the European Union. They play a central role in the system of economic policy coordination, setting out economic policy recommendations which give a basis for economic policy in both the Member States and the EU as a whole in the current year.
Council of the European Union (“Council of Ministers” or “Council”)	The <i>Council of the European Union</i> is the Union’s main decision-making body and enacts legislation based on proposals from the European Commission. Its meetings are attended by the member state ministers, and is thus the institution which represents the member states. The Presidency of the Council rotates among the member states every six months.
Economic and Monetary Union (EMU)	<i>Economic and Monetary Union (EMU)</i> is the process of harmonizing the economic and monetary policies of the member states of the European Union with a view to the introduction of a single currency, the euro.
European Central Bank (ECB)	Founded on June 30, 1998, the <i>European Central Bank (ECB)</i> is the institution of the European Union responsible for setting the monetary policy of the 16 EU member states taking part in the Eurozone. The bank is headquartered in Frankfurt, Germany.
European Commission (EC)	The <i>European Commission (EC)</i> acts as the EU’s executive branch, and has the right of legislative initiative. There are 27 Commissioners—one from each country.
European Council	The <i>European Council</i> brings together the leaders of the member states and the Commission President. It acts as a strategic guide and driving force for EU policy.
European Financial Stability Facility (EFSF)	The <i>European Financial Stability Facility (EFSF)</i> was set up by the 16 Eurozone countries to provide a funding backstop should a euro area Member State find itself in financial difficulties. The EFSF has the capacity to issue bonds guaranteed by euro area members for up to € 440 billion in lending to Eurozone countries.
European Financial Stability Mechanism (EFSM)	The <i>European Financial Stability Mechanism (EFSM)</i> is a new €60 billion supranational EU balance of payments loan facility available to any EU member country facing financial difficulties.
The European System of Central Banks (ESCB)	The <i>European System of Central Banks (ESCB)</i> comprises the European Central Bank and the national central banks of all EU member states whether they have adopted the euro or not.
European Union (EU)	The <i>European Union (EU)</i> was established by the Treaty on European Union (Maastricht, 1992). The project of creating a Union has a long history, and was first mooted at the European Summit of 1972. The Union is both a political project and a form of legal organization.
Eurozone	The <i>Eurozone</i> , officially the <i>euro area</i> , is an economic and monetary union (EMU) of 16 EU members states which have adopted the euro currency as their sole legal tender. Monetary policy of the zone is the sole responsibility of the European Central Bank, though there is no common representation, governance or fiscal policy for the currency union. Some cooperation does, however, take place through the euro group, which makes political decisions regarding the Eurozone and the euro.
Excessive Deficit Procedure (EDP)	The excessive deficit procedure is governed by Article 104 of the Treaty establishing the European Community, under which member states are obliged to avoid excessive deficits in national budgets.
Lisbon Treaty	The <i>Lisbon Treaty</i> , the latest institutional reform treaty of the European Union (EU), went into effect on December 1, 2009. It seeks to give the EU a stronger

Term	Definition
	and more coherent voice with the creation of a new position, President of the European Council. It also makes changes to the EU's internal decision-making mechanisms, and foreign policy apparatus, among other provisions.
Maastricht Treaty	<i>The Treaty of Maastricht</i> , formally, the <i>Treaty on European Union</i> (TEU), was signed on February 7, 1992 by members of the European Community in Maastricht, Netherlands. Upon its entry into force on November 1, 1993, it created the European Union and led to the creation of the single European currency, the euro.
Sovereign debt	Sovereign debt is a financial liability of a national government.
Stability and Growth Pact (SGP)	The <i>Stability and Growth Pact</i> (SGP) pertains to the third stage of economic and monetary union (EMU), which began on January 1, 1999. It is intended to ensure that member states maintain budgetary discipline after the single currency has been introduced.

Source: Europa Glossary (<http://europa.eu/scadplus/glossary/index-en.html>).

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