Greece’s Debt Crisis: Overview, Policy Responses, and Implications

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Summary

Buildup of Greece’s Public Debt: Over the past decade, Greece borrowed heavily in international capital markets to fund government budget and current account deficits. The profligacy of the government, weak revenue collection, and structural rigidities in Greece’s economy are typically cited as major factors behind Greece’s accumulation of debt. Access to capital at low interest rates after adopting the euro and weak enforcement of EU rules concerning debt and deficit ceilings may also have played a role.

Outbreak of Greece’s Debt Crisis: Reliance on financing from international capital markets left Greece highly vulnerable to shifts in investor confidence. Investors became jittery in October 2009, when the newly-elected Greek government revised the estimate of the government budget deficit to nearly double the original number. Over the next months, the government announced several austerity packages and had successful rounds of bond sales on international capital markets to raise needed funds. In late April, when Eurostat, the European Union (EU)’s statistical agency, further revised the estimate of Greece’s 2009 deficit upwards, Greek bond spreads spiked and two major credit rating agencies downgraded Greek bonds.

Eurozone/IMF Financial Assistance: The Greek government formally requested financial assistance from the 16 member states of the Eurozone and the International Monetary Fund (IMF), and a €110 billion (about $145 billion) package was announced on May 2, 2010. The package aims to prevent Greece from defaulting on its debt obligations and to stem contagion of Greece’s crisis to other European countries, including Portugal, Spain, Ireland, and Italy. Despite the substantial size of the package, some economists are concerned that the Eurozone/IMF package might not be enough to prevent Greece from defaulting on, or restructuring, its debt, or even from leaving the Eurozone. Greece’s debt crisis threatened to widen across Europe, as bond spreads for several European countries spiked and depreciation of the euro began to accelerate.

On Sunday, May 9, 2010, EU leaders announced that they would make an additional €500 billion ($636 billion) in financial assistance available to vulnerable European countries, with the IMF contributing up to an additional €220 billion (about $280 billion) to €250 billion (about $318 billion). The same day, the European Central Bank (ECB) announced it could start buying European bonds, and the U.S. Federal Reserve also announced it would reopen currency swap lines with other major central banks, including the ECB, to help ease economic pressure. When markets opened on Monday, May 10, 2010, bond spreads in Europe dropped and the euro began to strengthen, suggesting that the package was successful in stemming the spread of Greece’s crisis.

Implications for the United States: Greece’s debt crisis could have several implications for the United States. First, falling investor confidence in the Eurozone has weakened the euro, which, in turn, could widen the U.S. trade deficit. Second, given the strong economic ties between the United States and the EU, financial instability in the EU could impact the U.S. economy. Third, $16.6 billion of Greece’s debt is held by U.S. banks, and a Greek default would likely have ramifications for these creditors. Fourth, some have suggested that Greece’s current debt crisis foreshadows what the United States could face in the future. Others argue that the analogy is weak, because the United States, unlike Greece, has a floating exchange rate and a national currency that is an international reserve currency. Fifth, the debate about imbalances within the Eurozone is similar to the debates about U.S.-China imbalances, and reiterates how, in a globalized economy, the economic policies of one country impact other countries’ economies.
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Introduction

Historically, financial crises have been followed by a wave of governments defaulting on their debt obligations.1 Financial crises tend to lead to, or exacerbate, sharp economic downturns, low government revenues, widening government deficits, and high levels of debt, pushing many governments into default.2 As recovery from the global financial crisis begins, but the global recession endures, some point to the threat of a second wave of the crisis: sovereign debt crises.3

Greece is currently facing such a sovereign debt crisis. On May 2, 2010, the Eurozone members and International Monetary Fund (IMF) endorsed a historic €110 billion (about $145 billion) financial package for Greece in an effort to avoid a Greek default and to stem contagion of Greece’s crisis to other European countries, particularly Portugal, Spain, Ireland, and Italy.4 On May 9, 2010, the European Union (EU) announced an additional €500 billion (about $636 billion) in financial assistance that could be made available to assist vulnerable European countries.

Greece’s debt crisis has raised a host of questions about the merits of the euro and the prospects for future European monetary integration, with some calling for more integration and others less. Of heated debate, in particular, is the viability of an economic union that has a common monetary policy but diverse national fiscal policies. Some economists have suggested that Greece could benefit from abandoning the euro and issuing a new national currency, although doing so would raise the real value of Greece’s external debt and possibly trigger runs on Greek banks and contagion of the crisis more broadly within the Eurozone.

The United States and the EU have strong economic ties, and a crisis in Greece that threatens to spill over to other Southern European countries could impact U.S. economic relations with the EU and the general economic recovery from the financial crisis. Additionally, the exposure of U.S. banks is estimated at $16.6 billion.5 The Obama Administration was reportedly supportive of the EU and IMF’s decision to offer financial support to Greece and other vulnerable Eurozone economies. Indeed, at least one press report indicates that Administration officials began urging their European counterparts to take decisive action to prevent the possibility of Greek default as early as February.6 President Obama is reported to have called German Chancellor Angela Merkel and French President Nicolas Sarkozy on May 9, 2010, to encourage them to structure a broader package of financial assistance in an effort to stem possible contagion of the Greek crisis to other

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4 For the Greek financial assistance package and the broader Eurozone financial assistance package, the exchange rate at the time the package was announced is used. Otherwise in the report, the exchange rate used is the exchange rate as of May 6, 2010: €1 = $1.2727. Source: European Central Bank, http://www.ecb.int/stats/exchange/eurofxref/html/eurofxref-graph-usd.en.html. However, as noted later in the report, currency swings are underway, and dollar conversions of data denominated in euros should be approached as estimates.
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Eurozone Members. On May 10, 2010, the U.S. Federal Reserve reopened credit swap lines with the European Central Bank (ECB), among other major central banks, to help ease economic pressures resulting from the crisis in Europe.

Given this context, congressional interest in Greece’s debt crisis is high. Greece’s economic situation was a major focus of discussion during Greek Prime Minister George Papandreou’s meetings with congressional leaders in a visit to Washington, DC in March 2010. Numerous congressional hearings in 2010 have referenced Greece’s economic situation, and the House Committee on Financial Services held a hearing on April 29, 2010, on the implications of Greece’s debt crisis for credit default swaps. Given the large financial commitment of the United States to the IMF, there is also strong congressional interest in the IMF’s role in providing financial assistance to Greece.

This report provides an overview of the crisis; outlines the major causes of the crisis, focusing on both domestic and international factors; examines how Greece, the Eurozone members, and the IMF have responded to the crisis; and highlights the broader implications of Greece’s debt crisis, including for the United States.

Greece’s Debt Crisis: Background

Buildup to the Current Crisis

During the decade preceding the global financial crisis that started in fall 2008, Greece’s government borrowed heavily from abroad to fund substantial government budget and current account deficits. Between 2001, when Greece adopted the euro as its currency, and 2008, Greece’s reported budget deficits averaged 5% per year, compared to a Eurozone average of 2%, and current account deficits averaged 9% per year, compared to a Eurozone average of 1%. In 2009, Greece’s budget deficit is estimated to have been more than 13% of GDP. Many attribute the budget and current account deficits to the high spending of successive Greek governments.

Greece funded these twin deficits by borrowing in international capital markets, leaving it with a chronically high external debt (116% of GDP in 2009). Both Greece’s budget deficit and external debt level are well above those permitted by the rules governing the EU’s Economic and Monetary Union (EMU). Specifically, the Treaty on European Union, commonly referred to as the Maastricht Treaty, calls for budget deficit ceilings of 3% of GDP and external debt ceilings of

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7 Ibid.
9 The current account is the difference between exports and imports, plus net income payments and net unilateral transfers. By accounting identity, the current account is equal to net inflows of foreign capital. Current account deficits are financed by foreign capital inflows.
11 For example, see “A Very European Crisis,” Economist, February 4, 2010.
60% of GDP. Greece is not alone, however, in exceeding these limits. Of the 27 EU member states, 25 exceed these limits.13

Greece’s reliance on external financing for funding budget and current account deficits left its economy highly vulnerable to shifts in investor confidence. Although the outbreak of the global financial crisis in fall 2008 led to a liquidity crisis for many countries, including several Central and Eastern European countries, the Greek government initially weathered the crisis relatively well and had been able to continue accessing new funds from international markets. However, the global recession resulting from the financial crisis put strain on many governments’ budgets, including Greece’s, as spending increased and tax revenues weakened.14

**Outbreak of the Current Crisis**

Since late 2009, investor confidence in the Greek government has been rattled. In October 2009, the new socialist government, led by Prime Minister George Papandreou, revised the estimate of the government budget deficit for 2009, nearly doubling the existing estimate of 6.7% of GDP to 12.7% of GDP.15 This was shortly followed by rating downgrades of Greek bonds by the three major credit rating agencies. In late November 2009, questions about whether Dubai World, a state-controlled enterprise in Dubai, would default on its debt raised additional concerns about the possibility of a cascade of sovereign defaults for governments under the strain of the financial crisis. Countries with large external debts, like Greece, were of particular concern for investors. Allegations that Greek governments had falsified statistics and attempted to obscure debt levels through complex financial instruments also contributed to a drop in investor confidence.16 Before the crisis, Greek 10-year bond yields were 10 to 40 basis points above German 10-year bonds. With the crisis, this spread increased to 400 basis points in January 2010, which was at the time a record high.17 High bond spreads indicate declining investor confidence in the Greek economy.

Despite increasing nervousness surrounding Greece’s economy, the Greek government was able to successfully sell €8 billion ($10.2 billion) in bonds at the end of January 2010, €5 billion ($6.4 billion) at the end of March 2010, and €1.56 billion ($1.99 billion) in mid-April 2010, albeit at high interest rates. However, Greece must borrow an additional €54 billion ($68.8 billion) to cover maturing debt and interest payments in 2010, and concerns began to develop about the government’s ability to do so.18

At the end of March 2010, Eurozone member states pledged to provide financial assistance to Greece in concert with the IMF, if necessary, and if requested by Greece’s government. Negotiations and discussions about the package continued and investor jitteriness spiked again in

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14 For more about the effects of the global recession on government budgets, and how governments have tried to address these challenges, see CRS Report R41122, Limiting Central Government Budget Deficits: International Experiences, by James K. Jackson.
17 “Fiscal Woes to Dog Greek Bonds Even if Aid Offered,” *Reuters*, March 22, 2010. 10 basis points = 0.1 percentage point.
April 2010, when Eurostat, the EU’s statistical agency, released its estimate of Greece’s budget deficit. At 13.6% of GDP, Eurostat’s estimate was almost a full percentage point higher than the previous estimate released by the Greek government in October 2009. This led to renewed questions about Greece’s ability to repay its debts, with €8.5 billion ($10.8 billion) falling due on May 19, 2010. On April 23, 2010, the Greek government formally requested financial assistance from the IMF and other Eurozone countries. The European Commission, backed by Germany, requested that more details on Greece’s proposed budget cuts for 2010, 2011, and 2012 be released before providing the financial assistance. In late April 2010, the spread between Greek and German 10-year bonds reached a record high of 650 basis points, and one of the major credit rating agencies, Moody’s, downgraded Greece’s bond rating by one notch. On April 27, 2010, another ratings agency, Standard and Poor’s, downgraded Greek bonds to “junk” status.

In meetings with members of the German Parliament (Bundestag), IMF Managing Director Dominique Strauss-Kahn reportedly raised the prospect of a three-year assistance package to Greece totaling €120 billion ($152 billion), substantially larger than initially reported in news reports. As negotiations among the IMF, Eurozone member states, and Greece continued, Greece agreed to additional austerity measures. On May 2, 2010, the Eurozone and IMF announced a three-year, €110 billion (about $145 billion) stabilization plan for Greece. Eurozone countries are to contribute €80 billion (about $105 billion) in bilateral loans, pending parliamentary approval in some countries. The IMF is to contribute a €30 billion (about $40 billion) loan at market-based interest rates. The agreement is considered historic, because it is the first IMF loan to a Eurozone country and the overall package is substantial relative to Greece’s GDP (forecasted to be €229 billion [$291 billion] in 2010). In exchange for financial assistance, Greece submitted a three-year plan aimed at cutting its budget deficit from 13.6% of GDP in 2009 to below 3% of GDP in 2014. The Eurozone/IMF package was announced amidst Greek protests that at times started turning violent.

Despite the substantial size of the financial assistance package, the threat of Greece’s crisis spreading to other Eurozone countries remained. Bond spreads for several other European countries spiked and the euro started to depreciate rapidly. In a bid to “save the euro,” on May 9, 2010, European Union governments announced that they would make an additional €500 billion (about $636 billion) available to vulnerable European countries. The IMF may contribute up to an additional €220 billion (about €280 billion) to €250 billion (about $318 billion). Following the announcement, the market reacted positively, as bond spreads for several vulnerable European countries dropped and the euro began to strengthen.

Possible Causes of Greece’s Crisis

Greece’s current economic problems have been caused by a mix of domestic and international factors. Domestically, high government spending, structural rigidities, tax evasion, and corruption have all contributed to Greece’s accumulation of debt over the past decade. Internationally, the adoption of the euro and lax enforcement of EU rules aimed at limiting the accumulation of debt are also believed to have contributed to Greece’s current crisis.

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Domestic Factors

High Government Spending and Weak Government Revenues

Between 2001 and 2007, Greece’s GDP grew at an average annual rate of 4.3%, compared to a Eurozone average of 3.1%. High economic growth rates were driven primarily by increases in private consumption (largely fueled by easier access to credit) and public investment financed by the EU and the central government. Over the past six years, however, while central government expenditures increased by 87%, revenues grew by only 31%, leading to budget deficits well above the EU’s agreed-upon threshold of 3%. Observers also identify a large and inefficient public administration, costly pension and healthcare systems, tax evasion, and a general “absence of the will to maintain fiscal discipline” as major factors behind Greece’s deficit.

According to the OECD, as of 2004, spending on public administration as a percentage of total public expenditure in Greece was higher than in any other OECD member, “with no evidence that the quantity or quality of the services are superior.” This trend has continued. Greek government expenditures in 2009 accounted for 50% of GDP, with 75% of (non-interest) public spending going to wages and social benefits. Successive Greek governments have taken steps to modernize and consolidate the public administration. However, observers continue to cite over-staffing and poor productivity in the public sector as an impediment to improved economic performance. An aging Greek population—the percentage of Greeks aged over 64 is expected to rise from 19% in 2007 to 32% in 2060—could place additional burdens on public spending and what is widely considered one of Europe’s most generous pension systems. According to the OECD, Greece’s “replacement rate of 70%-80% of wages (plus any benefits from supplementary schemes) is high, and entitlement to a full pension requires only 35 years of contributions, compared to 40 in many other countries.” Absent reform, total Greek public pension payments are expected to increase from 11.5% of GDP in 2005 to 24% of GDP in 2050.

Weak revenue collection has also contributed to Greece’s budget deficits. Many economists identify tax evasion and Greece’s unrecorded economy as key factors behind the deficits. They argue that Greece must address these problems if it is to raise the revenues necessary to improve its fiscal position. Some studies have valued the informal economy in Greece at between 25%-30% of GDP. Observers offer a variety of explanations for the prevalence of tax evasion in Greece, including high levels of taxation and a complex tax code, excessive regulation, and inefficiency in the public sector. Like his predecessor Constantine (Costas) Karamanlis, Prime

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23 Ibid.

24 Administration encompasses public services including: executive and legislative organs; financial and fiscal affairs; external affairs; foreign economic aid; general services; basic research; research and development; public debt transactions and other general services. “OECD Economic Survey: Greece,” *OECD*, May 2007.


Minister Papandreou has committed to cracking down on tax and social security contribution evasion. Observers note, however, that past Greek governments have had, at best, mixed success seeing through similar initiatives.

**Structural Policies and Declining International Competitiveness**

Greek industry is suffering from declining international competitiveness. Economists cite high relative wages and low productivity as a primary factor. According to one study, wages in Greece have increased at a 5% annual rate since the country adopted the euro, about double the average rate in the Eurozone as a whole. Over the same period, Greek exports to its major trading partners grew at 3.8% per year, only half the rate of those countries’ imports from other trading partners.28 Some observers argue that for Greece to boost the competitiveness of its industries and reduce its current account deficit, it needs to increase its productivity, significantly cut wages, and increase savings. As discussed below, the Papandreou government has begun to curb public sector wages and hopes to increase Greek exports through investment in areas where the country has a comparative advantage. In the past, tourism and the shipping industry have been the Greek economy’s strongest sectors.

**International Factors**

**Increased Access to Capital at Low Interest Rates**

Greece’s adoption of the euro as its national currency in 2001 is seen by some as a contributing factor in Greece’s buildup of debt. With the currency bloc anchored by economic heavyweights Germany and France, and a common monetary policy conservatively managed by the ECB, investors have tended to view the reliability of euro member countries with a heightened degree of confidence. The perceptions of stability conferred by euro membership allowed Greece, as well as other Eurozone members, to borrow at a more favorable interest rate than would likely have been the case outside the EU, making it easier to finance the state budget and service existing debt. This benefit, however, may also have contributed to Greece’s current debt problems: observers argue that access to artificially cheap credit allowed Greece to accumulate high levels of debt. Critics assert that if the market had discouraged excess borrowing by making debt financing more expensive, Greece would have been forced to come to terms earlier with the need for austerity and reform.

**Issues with EU Rules Enforcement**

The lack of enforcement of the Stability and Growth Pact is also seen as a contributing factor to Greece’s high level of debt. In 1997, EU members adopted the Stability and Growth Pact, an agreement to enhance the surveillance and enforcement of the public finance rules set out in the 1992 Maastricht Treaty’s “convergence criteria” for EMU. The rules call for government budget deficits not to exceed 3% of GDP and public debt not to exceed 60% of GDP. The 1997 Stability and Growth Pact clarified and sped up the excessive deficit procedure to be applied to member states that surpassed the deficit limit. If the member state is deemed to have insufficiently complied with the corrective measures recommended by the European Commission and the

Council of the European Union during the excessive deficit procedure, the process may ultimately result in a fine of as much as 0.5% of GDP.\textsuperscript{29}

Following the launch of the euro in 1999, an increasing number of member states found it hard to comply with the limits set by the Pact. Since 2003, more than 30 excessive deficit procedures have been undertaken, with the EU reprimanding member states and pressuring them to consolidate public finances, or at least promise to do so. The EU, however, has never imposed a financial sanction against any member state for violating the deficit limit. The lack of enforcement of the Stability and Growth Pact is thought to have limited the role the EU can play in discouraging countries, like Greece, from running up high levels of debt.

The European Commission initiated an excessive deficit procedure against Greece in 2004 when Greece reported an upward revision of its 2003 budget deficit figure to 3.2% of GDP. In its report, the Commission indicated that “the quality of public data is not satisfactory,” noting that the EU’s statistical office, Eurostat, had not certified or had unilaterally amended data provided by the National Statistical Service of Greece since 2000.\textsuperscript{30} Subsequent statistical revisions between 2004 and 2007 revealed that Greece had violated the 3% limit in every year since 2000, with its deficit topping out at 7.9% of GDP in 2004. The Commission also noted that Greece’s debt had been above 100% of GDP since before Greece joined the euro, and that the statistical revisions had pushed the debt number up as well. The EU closed the excessive deficit procedure in 2007, with the Commission pronouncing itself satisfied that Greece had taken sufficient measures, “mainly of a permanent nature,” and that the country’s deficit would be 2.6% of GDP in 2006 and 2.4% in 2007.

The Commission also concluded that “the Greek statistical authorities improved their procedures,” leading to “an overall higher quality of data.”\textsuperscript{31} The Commission opened a new excessive deficit procedure in 2009 when Greece’s 2007 deficit was reported at 3.5% of GDP, and that procedure is ongoing in the context of the current situation.\textsuperscript{32} This points to a broader problem of a monetary union without a fiscal union, as discussed below in “European Integration.”

**Addressing Greece’s Crisis: Progress to Date**

The Greek government faces government budget and current account deficits that it can no longer finance by borrowing from international capital markets. Some caution that Greece is at risk of defaulting on its debt obligations. To address this crisis, the government is pursuing a mix of fiscal austerity (government spending cuts and tax increases) and structural reforms to improve


the competitiveness of the economy. Financial assistance from the other Eurozone member states and the IMF is allowing the adjustment to take place over a longer time period. Some economists have concern that despite the government’s reforms and the financial assistance from other Eurozone member states and the IMF, the Greek government may still default on or restructure its debt and/or leave the Eurozone. Amidst concerns that Greece’s crisis spreading throughout the Eurozone, the EU has announced it will make substantial resources available to vulnerable European countries.

**Greek Domestic Policy Responses**

**Fiscal Austerity**

Since taking office in October 2009, the Papandreou government has unveiled four separate packages of fiscal austerity measures aimed at bringing Greece’s government deficit down from an estimated 13.6% of GDP in 2009 to below 3% by 2014. The government had hoped that three rounds of spending cuts and tax increases announced between January 2010 and March 2010 would restore enough investor confidence in the Greek economy to eliminate the need for outside financial assistance. Financial markets did not react as hoped, and in late April 2010, the Greek government requested assistance from the IMF and EU. The IMF and EU, in turn, called on Athens to implement additional austerity measures. In an emotional and contentious vote, the Greek parliament approved the latest measures on May 6, 2010.

The Papandreou government’s three-year fiscal consolidation plan is centered on deep cuts to public spending and enhanced revenue growth through tax increases and a crack-down on tax and social security contribution evasion. On the spending side, most of the cuts focus on the civil service. They include a reduction or freeze on all civil service pensions, wages, and bonuses and a civil servant hiring freeze in 2010 with a 5:1 retirement/recruitment ratio for new public sector hires from 2011. On the revenue side, the government has raised the average value-added tax rate from 19% to 23% and increased taxes on fuel, tobacco, liquor, and luxury products, among other things. The government hopes to raise revenues equivalent to 1.8% of GDP through strengthened tax collection and higher contribution requirements for tax evaders.

Eurozone member states have welcomed the Papandreou government’s plans for fiscal consolidation. Some observers express concern, however, that the mix of tax increases and sharp spending cuts could lead to higher unemployment and deepen an ongoing recession in the country. The policy solutions to two of the major economic issues facing the Greek government—cutting large government budget deficits (which requires contractionary fiscal policies to address) and stimulating the economy during cyclical economic downturn (which requires expansionary fiscal policies)—are at odds with each other. Some question, then, how long the government will

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33 On April 22, 2010, the EU’s statistical authority, Eurostat, estimated the Greek government’s 2009 budget deficit as 13.6% of GDP, almost one percentage point higher than the 12.7% of GDP previously estimated by the Papandreou government.

be able to count on public support for the contractionary measures in the face of a sharp recession.\textsuperscript{35}

\section*{Structural Reforms}

Prime Minister Papandreou has repeatedly emphasized the need for longer-term structural reforms to the Greek economy. To this end, he has proposed wide-ranging reforms to the pension and health care systems and to Greece’s public administration. His government has also announced measures to boost Greek economic competitiveness by enhancing employment and economic growth, fostering increased private sector development, and supporting research, technology, and innovation.

As mentioned above, the Greek pension system, considered one of the most generous in Europe, has long been a target of advocates of Greek economic reform. The Papandreou government has pledged both to reform pension institutions and to crack down on social security contribution evasion. The government has said it will raise the average retirement age from 61 to 63 (the statutory retirement age in Greece is 65) and begin calculating pensions on the basis of lifetime contributions as opposed to the last five years of earnings, as is now the case with some civil service pension schemes.\textsuperscript{36} Prime Minister Papandreou has announced a similar effort to tighten public regulation and strengthen accountability in what is widely considered an inefficient Greek health care system. His government also hopes to restructure Greece’s public administration. This includes consolidating local governance structures by reducing the levels of local administrative authorities from five to three, reducing the number of Greek municipalities from 1,034 to 370, and reducing the legal public entities formed by local authorities from 6,000 to 2,000.

\section*{Challenges and Prospects}

Some economists express concern that Greece’s relatively drastic contractionary fiscal policies could prolong an ongoing recession in the country. GDP contracted by 2\% in 2009 and is forecasted to contract by anywhere from 3\% to 5\% in 2010 and by 0.5\% to 1.6\% in 2011.\textsuperscript{37} Registered unemployment reached 10.6\% in November 2009, the highest level since March 2005, and is expected to increase in 2010 and 2011. As of October 2009, 27.5\% of young people (aged 15-24) in Greece were unemployed.\textsuperscript{38}

The Papandreou government hopes to counter these trends by attracting new foreign investment in Greece and by boosting exports of goods and services. In addition to advancing institutional reforms designed to more efficiently disburse Greek and EU investment and development funds, it intends to target sectors where it believes Greece has strong comparative advantages for trade

\textsuperscript{35}“Greece Economy: An Austere Future,”\textit{ Economist Intelligence Unit}, March 9, 2010.

\textsuperscript{36}“Greece/EU: Athens Frets under Financial Supervision,”\textit{ Oxford Analytica}, February 17, 2010. A 2008 reform of the Greek pension system legally reduced the number of pension funds from 133 to 13 (with five basic funds and eight smaller and supplementary funds). However, some observers have noted that the 2008 reforms have yet to be fully implemented.


and investment. These include its geographic location, particularly as a potential hub for regional trade and investment in energy and transportation networks; the renewable energy sector; and already strong global shipping and tourism sectors. Most agree, however, that the challenges to building sustainable economic growth are considerable. Greek exports dropped by close to 18% in 2009, and Greek businesses have become increasingly uncompetitive in domestic and international markets.39

Perhaps the most substantial challenge for the Greek government could be maintaining public and political support for its austerity and economic reform program. Papandreou’s Panhellenic Socialist Movement (PASOK) came to office in October 2009 on a platform of “social protection” promising to boost wages, improve support for the poor, and promote redistribution of income. The policies his government has since pursued to cut the budget deficit have required retreating from most of these campaign pledges and could prove politically difficult to see through. Thousands of public sector workers and their supporters have taken to the streets to protest the austerity measures and more protests are scheduled. The protests turned deadly on May 5, 2010, when three people were killed during an attack on an Athens bank. Despite growing public opposition to his austerity program, Papandreou has secured parliamentary support of the measures. A majority of Greeks appear to recognize the need for fiscal consolidation and see PASOK as the most credible political party to see this through. Observers emphasize, however, that support for Papandreou could be contingent on whether his government’s austerity measures are seen as fair and just. In this regard, the focus on reforming what is widely viewed as a corrupt and bloated public sector could benefit Papandreou.

Greece’s largest opposition party, the center-right New Democracy (ND) unseated by PASOK in the 2009 elections, supported the first three rounds of fiscal consolidation measures taken by the Papandreou government, but opposed the May 6, 2010, measures. ND criticized Papandreou’s decision to call for IMF assistance, with ND party leader Antonis Samaras predicting that the “IMF is going to force new measures upon [Greece] that neither [the Greek] economy nor [Greek] society will be able to bear.”40 Long-time observers of Greece point out that the reform record of past Greek governments dating back to the 1980s is mixed at best. It remains to be seen whether the Papandreou government will maintain the public support and political will to see through its wide range of reform proposals.

**Eurozone/IMF Financial Assistance to Greece**

On May 2, 2010, Eurozone finance ministers and the IMF agreed on a three-year program of loans to Greece totaling €110 billion (about $145 billion): €80 billion (about $105 billion) from Eurozone member states and €30 billion (about $40 billion) from the IMF. The package could reportedly provide €30 billion (about $40 billion) from the Eurozone and €10 billion (about $13 billion) from the IMF in 2010 to help ensure that Greece meets its immediate payment obligations.41 The breakdown of the financial assistance package for Greece is shown in **Figure 1** and discussed in greater detail below.

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40 “Athens Upbeat After Aid Talks with IMF Chief,” ekathimerini.com, April 26, 2010.

Figure 1. Eurozone/IMF Financial Assistance Package for Greece

<table>
<thead>
<tr>
<th>Eurozone, $105 billion</th>
<th>IMF, $40 billion</th>
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<tbody>
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<td>Germany, 29.3</td>
<td>Quota Resources, 20</td>
</tr>
<tr>
<td>France, 22.0</td>
<td>Bilateral Loans, 20</td>
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<tr>
<td>Italy, 19.3</td>
<td>Slovenia, 0.5</td>
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<tr>
<td>Spain, 12.8</td>
<td>Luxembourg, 0.3</td>
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<td>Belgium, 3.7</td>
<td>Malta, 0.1</td>
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<tr>
<td>Slovakia, 1.1</td>
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Total Package $145 billion


Notes: Eurozone member state commitments are bilateral loans, and some commitments are subject to parliamentary approval. IMF quota resources and bilateral loans fund a Stand-By Arrangement (SBA) loan for Greece. Conversion to dollars from euros using exchange rate of €1= $1.318.

Eurozone Member States

Details on Eurozone Member State Assistance to Greece

Over the course of March and April 2010, Eurozone leaders incrementally formulated a mechanism for providing financial assistance to Greece. After considerable negotiation, leaders agreed that the Eurozone countries would provide bilateral loans, at a market-based interest rate (approximately 5%, which is lower than what Greece had paid in recent bond sales), if supplemented by additional loans from the IMF and if the Greek government implemented substantial austerity measures over the next three years. On April 23, 2010, the Greek government formally requested the activation of this mechanism and the final package was announced the following week.

Of the Eurozone member states, Germany is reportedly providing the largest loan, expected to be €22.4 billion (about $29 billion) over the three-year period, followed by France, which is expected to loan Greece €16.8 billion (about $22 billion).42 With payment deadlines on Greek

42 Andrew Willis, “Greek Loans Will Be Ready in Time, EU Says,” euobserver.com, May 4, 2010, (continued...)
bonds looming, European leaders are aiming to execute the loan arrangements quickly. Due to different legal requirements among Eurozone countries—final approval requires a parliamentary vote in some countries—the loans will likely not all be available at the same time. Advocates of quick implementation overcame a major hurdle, however, when the German parliament approved German participation in the plan on May 7, 2010.

**Debates over Eurozone Member State Involvement**

Prior to the decision to loan Greece money, the debate about potential Eurozone assistance was contentious. Some observers argued that there are compelling reasons for the other Eurozone countries to intervene, asserting that the financial stability of the Eurozone, and possibly even the future of the euro, might be at stake. Severe instability in the Greek economy had already started to have wider consequences—the crisis contributed to a weakening of the euro and raised concerns that it could spread across European bond markets and draw in countries such as Spain, Portugal, Italy, and Ireland. Some observers note that the Greek crisis grew worse as Eurozone leaders contemplated a response—critics charge that quicker action may have stemmed the crisis at an earlier stage. There is also a significant political element to the debate. Monetary union is seen by many proponents of a strong EU as a crowning achievement of European integration. Some observers, therefore, assert that the EU must maintain solidarity and that the countries of the Eurozone cannot not allow Greece to default, much less abandon the euro.

At the same time, there was also great reluctance to provide assistance to Greece. Many Eurozone countries are themselves experiencing financial difficulties, and many are exasperated by the idea of rescuing a country that, in their perspective, has not exercised budget discipline, has failed to modernize its economy, and has allegedly falsified past financial statistics. In addition, many strongly wish to avoid setting a precedent by “bailing out” a country that has not managed its finances well. Some observers argued that allowing Greece to default could be preferable to a Eurozone rescue package, and some have advocated devising a mechanism to remove countries from the Eurozone that do not meet the requirements. Others have argued that the Eurozone loans are illegal under EU treaties or national laws. Germany, the Eurozone’s largest economy and arguably its most influential national voice on economic policy, has been among the most skeptical member states. Polls show that a large majority of Germans are strongly against providing financial assistance to Greece, and German Chancellor Angela Merkel repeatedly put a brake on discussions about formulating a rescue package before ultimately assenting.

**IMF**

**Details on IMF Assistance to Greece**

Approximately one-third of the Eurozone and IMF financial package for Greece is from IMF resources. The IMF assistance to Greece is a three-year, $40 billion loan made at market-based interest rates. Specifically, it is a three-year Stand-By Arrangement (SBA), which is the IMF’s standard loan vehicle for addressing balance-of-payments difficulties. The IMF does not disburse the full amount of its loans to governments at once. Instead, the IMF will divide the loan into tranches (French for “slice”) and will only disburse the next tranche after verifying that the

(...continued)

http://euobserver.com/19/30007.
specified economic policy reforms have been met. Urging policy reforms in this way ensures that the loans will be repaid to the IMF, and that the required economic reforms are implemented.

Greece’s loan from the Fund is unusual for two reasons. First, the IMF does not generally lend to developed countries and has never lent to a Eurozone member state since the euro was introduced in 1999 as an accounting currency and 2002 as physical currency in circulation. Second, it is unusual for its relative magnitude. The IMF has general limits on the amount it will lend to a country either through a SBA or Extended Fund Facility (EFF), which is similar to a SBA but for countries facing longer-term balance-of-payments problems. The IMF’s guidelines for limits on the size of loans for SBAs and EFFs are 200% of a member’s quota annually and 600% of a member’s quota cumulatively. IMF quotas are the financial commitment that IMF members make upon joining the Fund and are broadly based on the IMF member’s relative size in the world economy. In “exceptional” situations, the IMF reserves the right to lend in excess of these limits, and has done so in the past. The IMF’s loan to Greece is indeed exceptional access at 3,200% of Greece’s IMF quota and is the largest access of IMF quota resources granted to an IMF member country.

The IMF is expected to finance half of Greece’s loan ($20 billion) using IMF quota resources. Although the United States has contributed 17% of IMF quota resources, it is unclear what portion of the IMF loan for Greece that is financed by quota resources will be funded by the U.S. quotas. The IMF does not disclose country contributions to individual transactions with the Fund. In deciding which quota resources to use, the IMF aims to provide a balanced position for all members.

The other half ($20 billion) of the IMF loan is expected to be financed by bilateral loans that have been committed to the IMF as part of an overall effort to increase IMF resources. None of this portion is coming from the United States. In 2009, the United States did agree to extend a line of credit worth $100 billion as part of expanding the IMF’s New Arrangements to Borrow (NAB). However, the expanded NAB is not yet operational, so this $100 billion line of credit from the United States cannot be tapped for Greece’s package.

**Debates over IMF Involvement**

At the onset of the Greek crisis, many EU officials were insistent that the Eurozone take ownership of the issue. Analysts asserted that it was important for the Eurozone to demonstrate its strength and credibility by taking care of its own problems. The prospect of “outside” intervention from the IMF was viewed by many as a potential “humiliation” for the Eurozone, with officials at the ECB, among others, strongly opposed. In late March, however, the debate in Europe appeared to shift, with the door slowly opening for possible IMF involvement as a number of member states came to favor a twin-track approach combining Eurozone and IMF financial assistance.

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43 The IMF has “preferred creditor status,” meaning that IMF member states give priority to repayment of their obligations to the Fund over other creditors. The United States has never lost money on its commitment to the IMF.


In the end, IMF involvement was reportedly a key condition of German Chancellor Merkel’s willingness to provide financial assistance to Greece. Some argue that the policy reforms (conditionality) attached to an IMF loan would lend additional impetus to reform and provide both the Greek government and the EU with an outside scapegoat for pushing through politically unpopular reforms. The EU would also make policy reforms a condition of loans, but the IMF is seen as more independent than the EU and has more experience in resolving debt crises than the EU.47

Are the Domestic Reforms and Eurozone/IMF Package for Greece Enough?

Some economists fear that Greece’s fiscal austerity plan, which entails cutting budget deficits by 9% of GDP in four years, is too ambitious and will be politically difficult to implement.48 As a result, some economists suggest that the Greek government could still default on or, considered more plausible, restructure its debt. In fact, some observers regret that debt restructuring was not included in the IMF package in order to provide a more orderly debt workout.49 Restructuring would also push some of costs of the crisis onto private banks that, it is argued, engaged in “reckless lending” to Greece.50 However, a default or debt restructuring could accelerate the contagion of the crisis to other Eurozone countries, as well as hinder Greece’s ability to regain access to capital markets. In addition, even if Greece’s government stopped servicing its debt, it would still need substantial fiscal austerity measures to address the government deficit unrelated to debt payments.

This has led some economists to argue that Greek fiscal austerity should be offset by more accommodating monetary policy by the ECB. This seems unlikely in light of recent reported comments by the President of the ECB, Jean-Claude Trichet, on the ECB’s commitment to price stability.51

As a result, some economists have suggested that Greece should or may leave the Eurozone.52 This would likely require abandoning the euro, issuing a national currency, and allowing that currency to depreciate against the euro. The Greek government would also probably have to put restrictions on bank withdrawals to prevent a run on the banks during the transition from the euro to a national currency. It is thought that a new national currency depreciated against the euro would spur export-led growth in Greece and offset the contractionary effects of austerity. Since Greece’s debt is denominated in euros, however, leaving the Eurozone in favor of a depreciated national currency would raise the value of Greece’s debt in terms of national currency and put pressure on other vulnerable European countries. Additionally, some argue that a Greek departure from the Eurozone would be economically catastrophic, creating the “mother of all financial

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50 Ibid.
crises,"53 and have serious ramifications for political relations among the European states and future European integration.

**Broader EU Stabilization Package**

**EU Member States**

Despite the enactment of the Eurozone-IMF assistance package for Greece, investor concerns about the sustainability of Eurozone debt deepened during the first week of May 2010. Driven down by such fears, global stock markets plunged sharply on May 6, 2010, and the euro fell to a 15-month low against the dollar. Seeking to head off the possibility of contagion to countries such as Portugal and Spain, EU finance ministers agreed to a broader €500 billion (about $686 billion) “European Financial Stabilization Mechanism” on May 9, 2010. Some analysts assert that such a bold, large-scale move had become an urgent imperative for the EU in order to break the momentum of a gathering European financial crisis. Investors reacted positively to the announcement of the new agreement, with global stock markets rebounding on May 10, 2010, to re-gain the sharp losses of the week before.

The bulk of the European Financial Stabilization Mechanism package consists of a “Special Purpose Vehicle” under which Eurozone countries could make available bilateral loans and government-backed loan guarantees totaling up to €440 billion (about $560 billion) to stabilize the euro area. The agreement, which expires after three years, requires parliamentary ratification in some Eurozone countries. The mechanism additionally allows the European Commission to raise money on capital markets and loan up to €60 billion (about $76 billion) to Eurozone states. Previously, such a procedure could only be applied to non-Eurozone members of the EU, and was used after the global financial crisis to improve the balance-of-payments situations of Latvia, Hungary, and Romania. Lastly, the ECB may take on a more significant new role: if necessary to increase market confidence, the ECB can now buy member state bonds, an activity in which it has not previously engaged.

**IMF**

The European Financial Stabilization Mechanism was announced with the IMF contributing up to an additional €220 billion to €250 billion (about $280 billion to $318 billion). This is in line with the Greece package, where the Eurozone states contributed roughly 2/3 and the IMF 1/3. IMF Managing Director John Lipsky reportedly later clarified the news reports about the IMF contribution to the European Financial Stabilization Mechanism, saying that these pledges were “illustrative” of the support that the IMF could provide.54 Reportedly, Lipsky reiterated that the IMF only provides loans to countries that have requested IMF assistance and that Greece is the only Eurozone country to date that has requested IMF assistance.

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Implications of Greece’s Crisis

Contagion and Eurozone Debt Concerns

Prior to the agreement on the European Financial Stabilization Mechanism, growing spreads on Portuguese and Spanish bonds, coupled with the late April 2010 downgrades of those countries’ credit ratings, raised renewed concerns about the possibility of contagion within the Eurozone. Concerns about a spillover of Greece’s crisis to its neighbors are rooted in memories of the Asian financial crisis in 1997-1998, where it is believed that investor herding behavior contributed to the spread of the crisis throughout the region.55

As investors become increasingly nervous about the sustainability of some countries’ debt, the higher interest rates demanded for new bonds make it in turn more difficult for those countries to borrow and to service their existing debt. Should a loss of market confidence take hold and spread, investors could rush to sell off the bonds they hold and decline to buy new bonds that countries seek to auction: a cascade of sovereign debt crises could result. While investor confidence is based primarily on conditions within each country, confidence in this case had also been affected by the gradual reaction to the Greek crisis, as some observers came to doubt the willingness and ability of the Eurozone and the IMF to tackle another crisis in Europe.

The European Financial Stabilization Mechanism appears to have successfully reassured the markets and diminished the likelihood of a Eurozone contagion scenario for the time being. Nevertheless, some observers assert that the mechanism does not solve the root causes of the problem, and that numerous European countries will still need to take difficult steps to increase their industrial competitiveness and improve the state of their public finances. Portugal and Spain had been thought by many to be the leading candidates for the next potential crisis, and Italy and Ireland have been frequently mentioned as well. Although these countries all borrowed heavily during the credit bubble that preceded the global financial crisis, the economic circumstances and challenges differ in each one. In noting the size of the Italian and Spanish economies compared to the much smaller Greek, Irish, and Portuguese economies, observers caution that a financial crisis affecting one of the larger countries could pose a problem of a much higher magnitude.

Complex Financial Instruments and Financial Regulation

Through the crisis, it has been reported that Greek governments, underwritten by prominent financial institutions including Goldman Sachs, used complex financial instruments to conceal the true level of Greece’s debt.56 For example, the government of Papandreou’s predecessor, Costas Karamanlis, is alleged to have exchanged future revenues from Greece’s highways, airports, and lotteries for up-front cash payments from investors. Likewise, it is reported that the Greek government borrowed billions by trading currencies at favorable exchange rates. Because these transactions were technically considered currency swaps, not loans, they did not need to be reported by the Greek government under EU accounting rules. The Federal Reserve is currently

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investigating the role that Goldman Sachs and other U.S. financial institutions played in the buildup of Greece’s debt.\textsuperscript{57}

The role of complex financial instruments in Greece’s debt crisis has exposed some tensions between the United States and the EU over financial regulation. Some European leaders have called for tighter financial regulation, including a prohibition on derivatives that are believed to have helped create Greece’s debt crisis. Financial regulatory reform before Congress would regulate, but not ban, derivatives. In a mid-March 2010 visit to Washington, DC, Prime Minister Papandreou vocally criticized “unprincipled speculators” for “making billions every day by betting on a Greek default.”\textsuperscript{58}

**European Integration**

Greece’s debt crisis has also launched a number of broader debates about the EU’s monetary union. Since the introduction of the euro in 1999, skeptics have pointed to a mismatch between the EU’s advanced economic and monetary union and an incomplete political union. Even within the economic areas where the EU is more tightly integrated, the Eurozone has a single monetary policy but 16 separate (if loosely coordinated) national fiscal policies. Critics argue that this arrangement is prone to problems and imbalances that threaten the viability of having a common currency. Others assert that the Greek crisis points to the need for stronger EU economic governance, at the very least in the form of a tighter and more enforceable Stability and Growth Pact. Going further, some proponents of deeper integration would like to use the crisis to launch a discussion about moving towards a more integrated EU-wide fiscal policy.

Additionally, some officials and analysts have proposed that the EU create a new European Monetary Fund (EMF) that would allow it to respond more smoothly to financial crises within individual member states in the future, operating much like the IMF but on a regional, rather than global, basis. There is some discussion that this would require a new governing treaty for the EU, which may be politically difficult to pass. Following the Asian financial crisis in 1997-1998, similar proposals for creating an institution like the IMF, but operating specifically within the region, were discussed but no such institution was created.

Finally, Greece’s crisis has brought to light imbalances within the Eurozone. Some Northern European countries, such as Germany, have relied on exports for economic growth and pursued policies that aim to promote such export-led growth, such as wage moderation to keep the costs of production low and make exports competitive. Combined with conservative fiscal policies that promote high levels of savings, these countries have run large current account surpluses. In contrast, some Southern European countries, like Greece, have had higher levels of wage growth and more expansionary fiscal policies, leading to less competitive exports and lower levels of savings. These countries have run large current account deficits and borrowed to finance these deficits.


Some argue that the Southern European countries now need to reduce their debt and increase savings, which translates to running current account surpluses. Hopes for export-led growth may be difficult to realize, however, in the face of the global economic recession. Greece’s reliance on tourism, which is highly affected by economic conditions (consumer spending on luxury items) and shipping, which is also affected by economic conditions (increased trade; low energy costs), raises real questions about trade providing much of a boost to the economy. Additionally, observers note that it is unclear whether the Northern European countries such as Germany are willing to take steps in their own domestic economies to reduce their levels of savings, curb exports, cut their current account surpluses, and promote this rebalancing within the Eurozone. How imbalances will be resolved within the Eurozone may be an important component of debates about EU integration in the future.

**U.S. Economy**

In addition to shaping debates over regulatory reform, both between the United States and the EU as well as within the G-20 more broadly, Greece’s debt crisis could have at least five major implications for the United States. First is the exchange rate. Many expect that if investors lose confidence in the future of the Eurozone, and more current account adjustment is required for the Eurozone as a whole, the value of the euro will weaken. Already, the euro has depreciated in recent months against the U.S. dollar (Figure 2), falling by more than 15% between December 12, 2009 and May 7, 2010, (from 1.51 $/€ to 1.27 $/€). A weaker euro would likely lower U.S. exports to the Eurozone and increase U.S. imports from the Eurozone, widening the U.S. trade deficit. On the other hand, it will make purchases and U.S. investments in Eurozone countries cheaper in dollar terms.

60 Ibid.
61 The G-20 is a forum for discussing economic policies among 20 major advanced and emerging-market countries. Following the financial crisis, financial regulation has been a major topic of focus at the G-20 meetings. For more on the G-20, see CRS Report R40977, *The G-20 and International Economic Cooperation: Background and Implications for Congress*, by Rebecca M. Nelson.
Second, the United States has a large financial stake in the EU. The EU as a whole is the United States’s biggest trading partner and hundreds of billions of dollars flow between the EU and the United States each year. Widespread financial instability in the EU could impact trade and growth in the region, which in turn could impact the U.S. economy. On the other hand, instability in the EU may make the United States more attractive to investors and encourage capital flows to the United States. However, if the crisis is contained to Greece, the effects on the United States would be smaller than instability throughout the EU as a whole.

Third, a Greek default could have implications for U.S. commercial interests. Although most of Greece’s debt is held by Europeans, $16.6 billion of Greece’s debt obligations are owed to creditors within the United States. Although not an insignificant amount of money, the relative size of U.S. creditor exposure to Greek bonds however is likely too small to create significant effects on the U.S. economy overall if Greece were to default.

Fourth, the global recession has worsened the government budget position of a large number of countries. Some argue that credit markets may have awakened to the magnitude of the debt problem due to the large number of countries that are involved and the extent of the budget

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deficits. For example, some have argued that there are strong similarities between Greece’s financial situation and the financial situation in the United States. Like Greece, it is argued, the United States has been reliant on foreign investors to fund a large budget deficit, resulting in rising levels of external debt and vulnerability to a sudden reversal in investor confidence. Others point out that the United States, unlike Greece, has a floating exchange rate and its currency is an international reserve currency, which alleviates many of the pressures associated with rising debt levels.

Fifth, debates over imbalances between current account deficit and current account surplus countries within the Eurozone are similar to the debates about imbalances between the United States and China. These debates reiterate how the economic policies of one country can affect other countries and the need for international economic cooperation and coordination to achieve international financial stability.

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Appendix A. Timeline of Events Since April 22, 2010

- **4/22/10** – Eurostat, the EU’s statistical agency, announces its estimate of Greek government budget deficit for 2009: 13.6% of GDP. This is almost a full percentage point higher than 12.7% of GDP reported by Greek government in January 2010, and more than double the 6.7% of GDP reported by the previous Greek government before October 2009.

- **4/22/10** – Moody’s downgrades Greek bonds one notch and places Greece on a negative outlook. Greek bond spreads widen. Yields on Greek 10-year bonds rise to 8.7%, compared to Germany’s 10-year bonds at 3.04%.67

- **4/23/10** – The Greek government requests to draw on €45 billion (about $60 billion) in emergency financial assistance previously agreed by Eurozone members and the IMF: €30 billion (about $40 billion) from Eurozone member states and €15 billion (about $20 billion) from the IMF.

- **4/27/10** – Ratings agency Standard and Poor’s downgrades Greek sovereign debt to “junk” status and downgrades Portuguese sovereign debt by two notches.

- **4/28/10** – Standard and Poor’s downgrades Spanish sovereign bonds one notch.

- **4/28/10** – In meetings with Members of the German Parliament (Bundestag), IMF Managing Director Dominique Strauss-Kahn reportedly raises the prospect of a three-year assistance package to Greece totaling €120 billion (about $160 billion).

- **4/28/10** – Following the downgrade of its sovereign bonds, the Portuguese government reportedly announces it will immediately implement austerity measures initially planned for 2011 in an effort to regain investor confidence.

- **4/29/10** – Greece reportedly agrees to the outline of a €25.6 billion (about $32 billion) austerity package, including a three-year wage freeze for public sector workers, in return for a multibillion-euro loan from the Eurozone and the IMF.

- **5/01/10** – Ongoing Greek protests against government austerity measures turn violent at times.

- **5/02/10** – The Eurozone and IMF announce a three-year, €110 billion (about $145 billion) stabilization plan for Greece. Eurozone countries are to contribute €80 billion (about $105 billion) in bilateral loans and the IMF is to provide €30 billion (about $40 billion) through a Stand-By Arrangement (SBA), the IMF’s standard lending instrument. Greece’s nominal GDP for 2010 is forecasted to be €229 billion (about $312 billion).68 In exchange for financial assistance, Greece agrees to austerity measures worth 13% of national income over the next four years. Financial assistance cannot be disbursed until parliamentary approval is secured in the necessary countries (including Germany) and the IMF Executive Board approves the IMF loan.

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• 5/03/10 – The European Central Bank (ECB) suspends the minimum credit rating required for Greek bonds used in ECB liquidity-providing operations. This policy change aims to sustain liquidity in the European banking sector.

• 5/05/10 – Three Greek bankers are killed in anti-reform riots.

• 5/06/10 – The Greek parliament passes austerity measures necessary for Eurozone and IMF financial assistance by a vote of 171 to 121.69

• 5/06/10 – Dow Jones drops nearly 1,000 points in less than half an hour. Initially, observers suspect contagion from Greece’s debt crisis. Subsequent reports suggest that other factors were at play. The Dow Jones recovered to a loss of 347 points at the close.

• 5/07/10 – German, French, and Dutch parliaments approve financial assistance to Greece.

• 5/09/10 – The IMF Executive Board approves the loan to Greece.

• 5/09/10 – EU leaders announce that €500 billion (about $636 billion) will be available for vulnerable European countries, with the IMF ready to provide an additional €220 billion (about $280 billion) to €250 billion (about $318 billion). This assumes the same division as with the Greek package (2/3 from Eurozone, 1/3 from IMF). The IMF only provides financial assistance to countries that IMF only provides financial assistance, and Greece is the only Eurozone country that has requested assistance to date. The ECB also announced it would buy member state bonds, a change from previous policy.

• 5/09/10 – The U.S. Federal Reserve announces it will reopen currency swap lines with other major central banks, including the ECB, to help ease economic pressure.

• 5/10/10 – Markets react favorably to announcement of EU financial assistance package; bond spreads of vulnerable European countries fall and euro begins to strengthen.

• 5/19/10 – Greek debt worth €8.5 billion (about $10.8 billion) is scheduled to fall due.

### Appendix B. Economic Indicators for Selected Eurozone Countries and the United States

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### Greece's Debt Crisis: Overview, Policy Responses, and Implications

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<th>GDP, Billion US$^b</th>
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**Source:** Data on government budgets (% of GDP) and public debt (% of GDP) is from Economist Intelligence Unit (EIU) Country Reports, April 2010. Data on current accounts (% of GDP) and GDP is from the IMF’s World Economic Outlook Database, April 2010.

**Notes:** EIU data for 2010 and 2011 are forecasts. World Economic Outlook forecasts start in 2008 or 2009 depending on the country and indicator.

a. Eurostat announced at the end of April 2010 that their estimate of Greece’s fiscal deficit for 2009 to be 13.6% of GDP.

b. Net public debt for Portugal, France, the United Kingdom, and the United States.
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