

# The Sovereign Debt Crisis: A Modern Greek Tragedy

The dubious distinction of history's first recorded sovereign default belongs to Greece—the same nation at the forefront of the world's second major financial crisis in five years.

The debt woes that began in Greece and Ireland a few years ago have magnified into Europe's sovereign debt crisis, driven by fear that debt owed by entire countries will not be repaid. The St. Louis Fed explored this crisis in-depth during the first "Dialogue with the Fed" for 2012, "Sovereign Debt: A Modern Greek Tragedy." Held May 8, 2012, right when tensions picked up again after Greece's default, this discussion gave the general public insights into sovereign debt issues and provided answers to attendees' questions. Christopher Waller, senior vice president and director of Research, led the presentation and discussion, with assistance from economists Fernando Martin and Christopher Neely.

Martin also led the Spanish-language version of the sovereign debt Dialogue—"Deuda Soberana: Una Tragedia Griega Moderna"—on May 30 in St. Louis. He was joined by fellow St. Louis Fed economists Carlos Garriga and Adrian Peralta-Alva for the question-and-answer part of the program.

## The Main Culprit: Excessive Government Debt

Why have sovereign debt woes become critical in Europe? After all, it's normal for governments to run a deficit by using debt to finance undertakings such as wars, civil projects and public services. Waller's short answer: palpable fear that excessive government debt will not be repaid.

As any banker knows, the rewards of borrowing are felt immediately and the pain is postponed to the future—often pushed back further by adding more debt. Consequently, undisciplined government borrowing can rise to unsustainable levels, leading to crisis, austerity and even default. This possibility can occur in any nation, even the United States. (See the Central View in this issue, "A Wake-up Call for the U.S.," by St. Louis Fed President James Bullard.)

## How High Is Too High?

When considering how deep in the hole a nation is, economists tend to look at the debt-to-GDP (gross domestic product) ratio instead of just the nation's budget deficit and the entire national debt, which is the sum of the current and all past deficits/surpluses. The debt-to-GDP ratio measures a country's ability to pay off the entire debt with one year's income, regardless of the nation's wealth or total debt outstanding. Many nations, including the U.S., have gross debt-to-GDP ratios well above 90 percent.

A high debt-to-GDP ratio does not automatically mean a nation is a default risk, however. "Many countries have defaulted with (relatively) little debt, and other countries have been doing fine with very high levels of debt," economist Fernando Martin said during the May 8 Q&A session. "I don't think there is anything magical about a *particular* debt-to-GDP number."

## Ability Vs. Willingness To Pay

Rather, explained Waller, the critical point for lenders and investors comes when they are no longer confident of getting their money back. "It's not the *ability* to repay the debt but the *willingness* to repay the debt," he said. For example, Japan's current debt-to-GDP ratio is well above 200 percent, but few holders of Japanese debt see that nation as a default risk. However, Brazil and Mexico defaulted in the early 1980s with lower debt-to-GDP ratios of only about 50 percent.

In normal times, most nations roll over their debt when it's due. Nations often choose to get short-term debt because of lower interest rates rather than longer-term debt, at the expense of rolling over debt more frequently. "Every time you roll it over, you're giving investors the opportunity to say, 'Can you meet your debt obligations?' If you're borrowing every six months or every 12 months, you've got to answer that question a lot more often," Waller said. "The minute a lender fears you may not be able to settle up this debt, they may either refuse to roll over the debt or raise the interest rates that you have to pay."

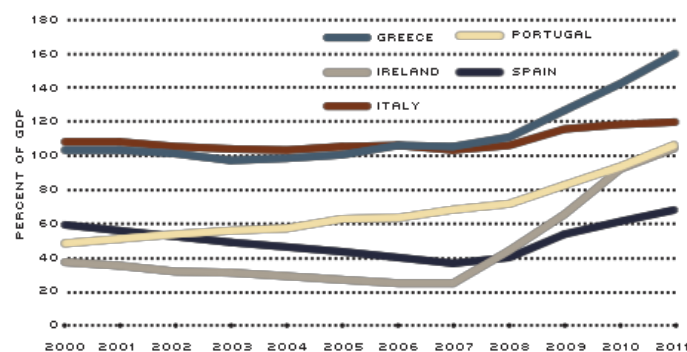
This perceived willingness—or growing lack thereof—to repay government debt is a major factor in Europe's current sovereign debt crisis.

## Wake-up Calls

Even though many nations in Europe had operated with high debt for decades, no developed nation had defaulted since 1946, Waller said. But financial markets were rudely awakened to sovereign debt risk in the late 2000s. Greece's shaky financial status was well-known when it was admitted to the Economic and Monetary Union (EMU, aka the eurozone) in 2000, but the true depth of that nation's debt became known only in 2009.<sup>1</sup> (See "Greece and the Role of the EU.") Meanwhile, fellow EMU member Ireland, long a strong financial performer, had to bail out its entire banking system in 2007-2008. Between 2007 and 2010, the Irish debt-to-GDP ratio went from 25 to near 100 percent, and its deficit went from zero to more than 30 percent. (See Figure 1.)

Figure 1

## Gross Government Debt-to-GDP Ratios, 2000-2011



SOURCE: International Monetary Fund, World Economic Outlook database, April 2012. The Greek and Irish shocks in the late 2000s woke up markets to the specter of sovereign debt, with debt-to-GDP ratios becoming alarmingly high.

By themselves, Greece and Ireland would not cause such consternation: "The combined GDP of Greece and Ireland is akin to the amount the state of Pennsylvania generates. It's hard to imagine that if Pennsylvania has a financial crisis, the rest of the country would collapse," Waller said.

But because members of the EMU are connected economically, smaller countries such as Greece, Ireland and Portugal (also experiencing sovereign debt woes) are the figurative canaries in the coal mine. "They were telling us that there was a bigger problem coming: Italy and Spain," Waller said. Those nations have much larger economies and

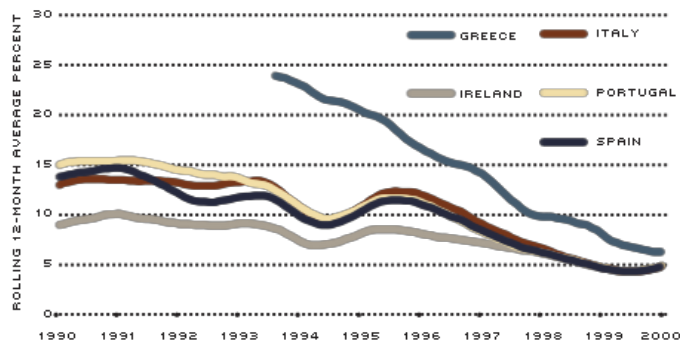
debt outstanding—Ireland, Italy, Portugal and Spain as the same by the end of the decade, regardless of whether a country had its fiscal house in order. Greek long term interest rates had approached the levels of eurozone members by 2000, when Greece was admitted to the EMU. This identical treatment of sovereign debt lasted until late 2008.

### Markets Lose Confidence

Financial markets had come to treat the sovereign debt of all EMU members as identical by the end of the 1990s, using the bonds issued by fiscally strong Germany as the union's benchmark. (See Figure 2.) But after the Greek and Irish shocks, financial markets stopped viewing Italian, Greek, Irish, Portuguese and Spanish debt as close substitutes for German bonds, and they started hiking interest rates in the fall of 2008 to compensate for the heightened risk of default. By January 2012, the yield spread between German and Greek debt had increased by 3,300 basis points. (See Figure 3.)

Figure 2

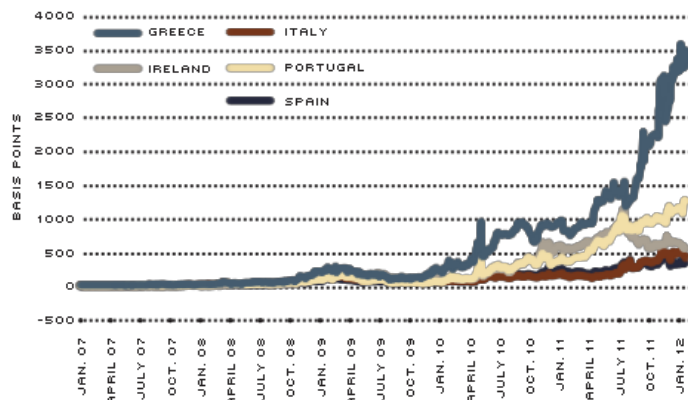
### Long Term Interest Rates, 1990-2000



SOURCE: DG II/Statistical Office European Communities/Haver Analytics. As shown by the nearly identical long term interest rates, financial markets viewed the sovereign debt of eurozone members such as Ireland, Italy, Portugal and Spain as the same by the end of the decade, regardless of whether a country had its fiscal house in order. Greek long term interest rates had approached the levels of eurozone members by 2000, when Greece was admitted to the EMU. This identical treatment of sovereign debt lasted until late 2008.

Figure 3

### Yield Spreads Over German 10-Year Bonds



SOURCE: Reuters/Haver Analytics. Once the deteriorating fiscal condition of Greece and Ireland became well-known, the markets began to incorporate default risk into the interest rates charged to governments to roll over their debt. By 2011, the spreads between what Germany paid on 10-year bonds, for example, and what the less frugal countries had to pay widened greatly—especially for Greece.

This loss of confidence was mirrored by the rise of prices for credit default swaps (CDS, essentially insurance policies against default). By late 2011, CDS on Greek debt stopped trading when markets gave Greece a 50 percent chance of default. CDS were triggered in March 2012 in response to a bond swap and restructuring deal that allowed Greece to effectively default on half of its debt.

Meanwhile, the rollover problem had hit Greek banks, which held about 20 percent of the government's sovereign debt (as of May 2012). The eventual Greek default dramatically weakened the banks' balance sheets, Waller explained. Because they feared Greece's banks would no longer honor obligations, markets stopped rolling over Greek bank debt, which in turn meant that Greek banks could no longer roll over funding of the government's debt.

### Digging Out of the Deep Hole

Since 2010, the EU and International Monetary Fund have provided a total of more than €1 trillion in several loan packages to ease rollover problems, with Germany and France contributing the most. The European Central bank also injected up to €1 trillion of liquidity into the EU's banking system. And in June, the eurozone agreed to provide approximately €100 billion to help Spanish banks.<sup>2</sup> But the loans cannot cover all of the debt owed. So, what is a nation to do when faced with the default specter? It has alternatives that are both difficult and unpleasant:

**Austerity measures** — These are combinations of sharp tax increases and deep spending cuts. Greece and Ireland instituted tough austerity measures, which lowered Greece's deficit-to-GDP ratio from about 16 percent to a projected 9 percent for 2011 and reduced Ireland's deficit-to-GDP ratio from its 2010 peak of 31 percent to near 10 percent in 2011. However, the cost was substantial social unrest. "You upset people. The measures are unpopular, and we saw the results in May," Waller said, referencing the late spring elections, when several governments were voted out, including the Greek government that revealed the nation's true debt but also enacted five rounds of austerity measures.

**Inflating away** — "Inflating away debt by printing money is the politically less painful way of doing it, but that doesn't mean it would be easy," economist Fernando Martin said. Economist Christopher Neely agreed and noted that a substantial portion of sovereign debt is short-term and other debt is issued in the form of real bonds that depend on the

price level. "So, unless you're willing to accept very high inflation for a long time, it's difficult to get a decent chunk of your debt inflated away, and if you do that, you're going to pay the costs of higher interest rates for a long time," he said.

"The pain associated with these actions will fall on different groups, and that leads to political conflict," Waller said. "Political conflict means delay in getting the fiscal situation on firmer ground, and it also erodes investor confidence."

Taken together, the austerity measures, the international loans and liquidity injections helped calm the overall situation by early 2012. "It worked—for a while," Waller said.

### In Conclusion: The Moral of the Tragedy

Uncertainty came roaring back in late spring because of election results in Greece, France and elsewhere in the EMU, and anxiety increased over possible Spanish and/or Italian defaults, the possible Greek exit from the eurozone, and the ultimate fate of the euro and the EU. At the May 8 Dialogue, almost two-thirds of the audience believed that after the crisis the EMU will continue to exist, albeit with fewer members.

And regardless of the resolution of the crisis, "Greece and other nations will still have to solve their fiscal problems," Martin said.

Calling Europe's turmoil a "modern Greek tragedy" is not a mere play on words. Rather, it's a tragedy because "borrowing is seductive," Waller explained. "Although the ability to borrow to finance current spending can be very beneficial, it's very tempting to borrow for the short-term gains and kick the pain down the road."

As a result, governments—like households—can borrow too much. "And suddenly you wake up one day (realizing that) your debt burden is unsustainable, which leads to a crisis, periods of austerity, and pain and suffering," he said.

"That's the tragedy of sovereign debt," Waller said.

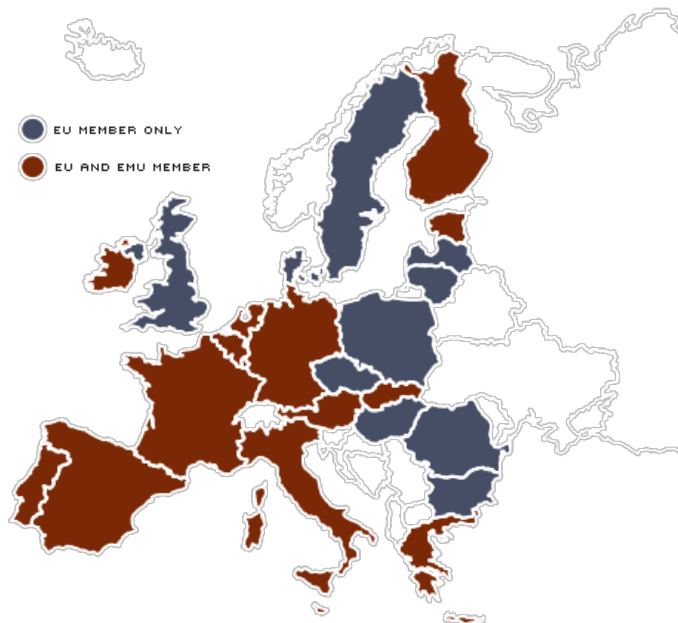
### Greece and the Role of the EU

Greece has defaulted on its sovereign debt many times throughout history. But the current crisis is much different because Greece is a member of the European Union (EU), and the debt-to-GDP ratios of Greece, Ireland, Portugal, Spain and Italy have become serious concerns.

Even after forming the EU, Europe never seriously pursued a fiscal union, Waller said, because nations would have had to give up their sovereign authority to tax, spend and issue debt. Rather, EU nations created the Economic and Monetary Union (EMU, also commonly called the eurozone) in the 1990s to be a monetary union united under a single currency. Even though the EU had little say over sovereign matters, countries could not be admitted to the eurozone unless they were moving toward specific levels for long-term interest rates, inflation, exchange rates, deficit-to-GDP ratios and debt-to-GDP ratios.

Greece was denied membership to the EMU in 1998 because it met none of the five criteria. Yet two years later, Greece was admitted to the EMU even though the nation *still* met none of the five criteria—and was even moving in the wrong direction. Most notably, it was well-known that Greece's debt-to-GDP ratio in 2000 was 103 percent, far above the EMU's maximum level of 60 percent; it remained about 100 percent throughout the 2000s. Also, Greece's deficit-to-GDP ratio in 2000 was 3.7 percent, above the EMU's maximum of 3 percent. And in 2009, a new Greek government revealed that Greece's deficit-to-GDP ratio was not 4 percent as the previous government had claimed but actually near 16 percent.

However, the EU failed to create contingencies in case a member nation decided to leave or was kicked out of the EU or EMU. "For many political reasons, it was never discussed," Waller said. This glaring omission has become critical today, more than a decade after Greece's shaky eurozone entry.



### Explore More of the "Modern Greek Tragedy"

#### Annual Report

Research Director Christopher Waller and economist Fernando Martin based their respective Dialogue presentations on their in-depth essay in the St. Louis Fed's 2011 Annual Report.

They reveal the historical roots of sovereign debt to help explain Europe's current crisis, why nations default and what may happen in the future. The essay is available in English and Spanish.

Visit [www.stlouisfed.org/ar](http://www.stlouisfed.org/ar), where you can also see a 10-minute video that captures several of the essay's key points.

#### "Dialogue with the Fed" Materials

Visit [www.stlouisfed.org/dialogue](http://www.stlouisfed.org/dialogue) to view the videos and presentations from the May 8 Dialogue; the May 30 Dialogo; and last fall's events on the financial crisis, the federal budget deficit and the unemployment picture.

### Credit Default Swaps

St. Louis Fed economists Bryan J. Noeth and Rajdeep Sengupta take "A Look at Credit Default Swaps and Their Impact on the European Debt Crisis" in the April 2012 *Regional Economist*.

### Deep Structural Problems and the Debt Crisis

The May 8 Dialogue's audience members asked whether factors such as inefficient tax collection and high unemployment—reasons other than those given in the presentation—helped push Europe into the sovereign debt crisis.

For example, one audience member pointed out that extremely inefficient tax collection policies in some southern European countries are one of the reasons why they're in trouble. "Are these countries trying to fix it, or is tax avoidance simply a way of life?" he asked.

Economist Fernando Martin acknowledged that tax evasion and other inefficiencies are problems. "But they're systemic problems that have been going on for a long time, and these countries have adapted to that reality," Martin said. "Those problems are long-standing and not what really triggered these current events."

One man said that people in some nations have a "mastery for tax evasion" because they are paid under the table for some work—a so-called informal sector that is not captured by the tax system. Noting that the U.S. also has such an informal sector, Martin said: "The connection to this particular crisis is that now people realize how burdensome these informal sectors are. Governments are providing everyone with public works, public education and more. But only people in the formal sector pay taxes—and the crisis has increased the political conflict because the informal sector does not want to be sucked into the formal sector and have to pay the tab."

### A Battle Fought on Many Fronts

Turning to Spain, one woman said: "They have the highest unemployment rate in the EU and EMU for people under 24, a collapsing banking system and problems in the property market. So, what do you see as their long-term future, and do they have 'willingness' to fix their problems?"

Noting that she was correct, Martin said that Spain and Portugal share a similar feature in that unemployment has been going up quite a lot—in Portugal for a longer time, in Spain more recently. "As for the willingness to fix those problems, that's a question for the politicians there and the public that elects them," he said. Spain and Portugal share structural problems and other features, such as rising expenditures since 2007 that have only now been coming down—and that's what's generating political conflict, which is on top of the labor market problems. "So now you have a battle being fought on many fronts—and it's a political conflict," Martin said.

Finally, audience members also asked whether the American investment banking industry and commodity price increases contributed to the sovereign debt crisis. Economist Christopher Neely answered that while investment bankers really couldn't be blamed, commodity prices could have been a trigger: "A trigger but not a fundamental cause," he said.

### Endnotes

1. The European Union (EU) is the organization formed in 1957. The 1992 Maastricht treaty led to the creation of the Economic and Monetary Union (EMU, aka the eurozone) and a single currency, the euro, managed by the pan-European institution the European Central Bank. Original eurozone members were Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain. As of this writing, 17 of the 27 EU members are in the eurozone. [\[back to text\]](#)
2. The European Central Bank committed to providing up to €1 trillion between 2012 and 2014. [\[back to text\]](#)

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