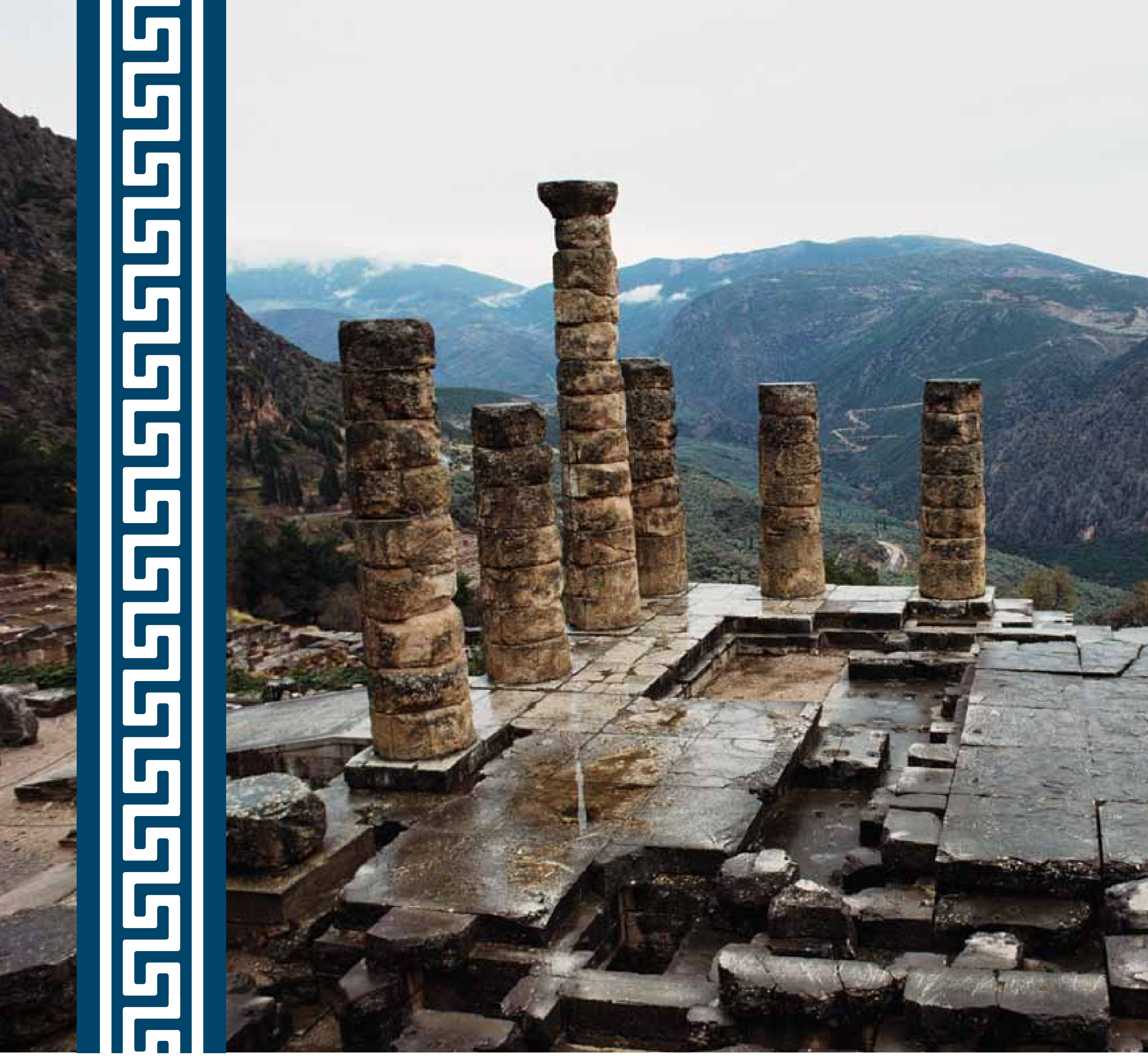


Demystifying Sovereign Debt in Greece: Why It Matters to Us

Greece's fiscal crisis has led to a cycle of government threats of austerity and civil unrest. The crisis also has repercussions for the euro area and possibly the worldwide economy. How did Greece's reliance on sovereign debt put the country in such a difficult position?

Until recently, many Americans, when they thought of Greece, were likely to envision a beautiful Mediterranean vacation destination, complete with flavorful dishes dripping with olive oil and goat cheese, and perhaps relics of ancient Greek civilization such as the Acropolis in Athens. These pleasant images may now be going the way of the drachma, Greece's former currency. Greece, one of the 16 European Union (EU) members that has adopted the euro, has been at the center of an evolving debt and financial crisis that threatens to upturn Greek society and the stability of the euro, and even derail the nascent recovery of the world economy. The thoughts that might come to mind now for Greece could include political and civil unrest, EU bailouts, and possible bankruptcy.

How did Greece get to this point? How has a crisis in a small country in southern Europe morphed into a wider crisis engulfing the whole continent? And what are the greater lessons of this Greek drama about government debt, budget deficits, and possible default?

Act I: Unrestrained government borrowing

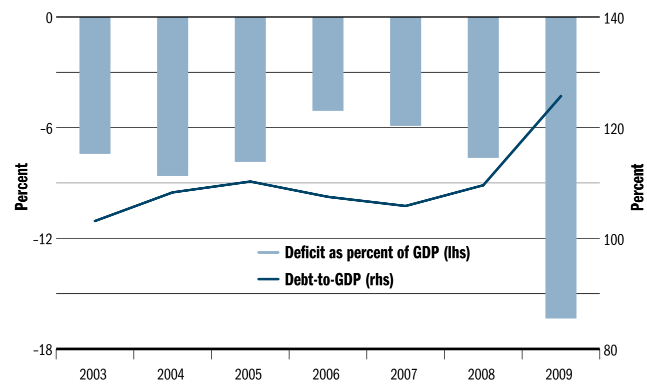
To understand the Greek crisis, we have to refresh our understanding of some basic facts of public finance and balance of payments accounting. In any given fiscal year, a government has revenues (tax receipts, for example) and expenditures (appropriations for defense, interest payments on debt, and so on). For many governments, these two sides of the ledger don't necessarily balance. Governments can run surpluses as well as deficits. When a government runs a deficit, in most cases it issues debt, or IOUs—called *sovereign debt* because the government, a sovereign entity, backs it. The purchasers of these debt securities can vary: central banks, pension funds, commercial banks, corporations, and foreign private entities or countries. This last category of debt purchase, also known as *external financing*, is where balance of payments accounts, or the record of a country's international transactions, matter. Japan, for example, has a large debt burden but a relatively large portion of it is financed domestically. On the other hand, a relatively larger portion of Portugal's debt financing is held by foreign entities.

To offer an example with a little more detail, we can look at the United States. The U.S. Treasury Department regularly issues debt—Treasury securities that differ in maturity from four weeks to 30 years—backed by the "full faith and credit" of the U.S. government. This borrowing capacity is how the United States ran a budget deficit in fiscal year 2009 equal to about 10 percent of gross domestic product (GDP) and had a total stock of public debt equal to 83 percent of GDP, according to the Office of Management and Budget (OMB).

However bad the U.S. fiscal situation may seem to some of its citizens, Greece's is far worse. The latest data from the Greek Ministry of Finance show that in 2009 Greece had a budget deficit of 16.35 percent of GDP and a debt-to-GDP ratio of 125 percent. This situation is not new, of course. After joining the Economic and Monetary Union (EMU) of the EU in 2001, Greece experienced nearly a decade of above-average real GDP growth (an average annualized growth of nearly 4 percent between 2001 and 2008). Along with the growth, however, Greece also ran large deficits (averaging 7 percent of GDP between 2003 and 2008; see chart 1).

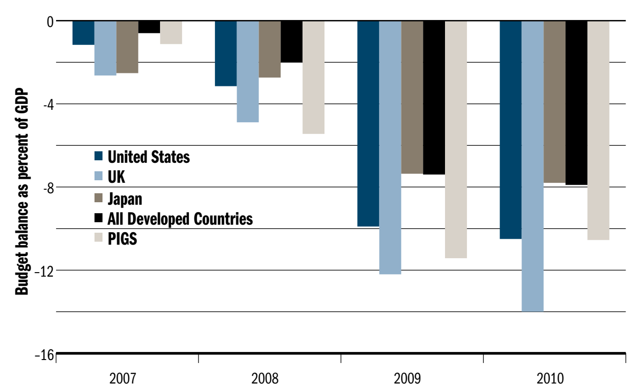
While Greece's fiscal situation was worse than most of the other euro countries, it was not alone in running large deficits or having high debt-to-GDP ratios. Italy, for example, has had a debt-to-GDP ratio above 100 percent since 1992. In 2009, it peaked at 115 percent. Furthermore, while Greece may have the largest budget deficit, Ireland, for example, is not far behind, at 15 percent of GDP in 2009. According to the Economist Intelligence Unit, forecasts for the budget deficits in the developed world are deeply in the red, but it's particularly bad in the United Kingdom (UK) and the so-called PIIGS—the popular acronym for Portugal, Italy, Ireland, Greece, and Spain (see chart 2).

Chart 1
Greece's Budget Deficit and Debt-to-GDP



Source: Greek Ministry of Finance, Haver Analytics

Chart 2
Budget Deficits of Developed Countries



Notes: Developed countries are OECD countries. The PIGS countries in this chart include Portugal, Ireland, Greece, and Spain. Italy is not included because of distortion (low budget deficit, high debt/GDP). Results for the PIGS countries reflect the average of the countries.
Source: Economist Intelligence Unit

Act II: Financial markets lose confidence in Greece

After George Papandreou became Greece's prime minister in October 2009 and his Panhellenic Socialist Movement (PASOK) party took power, the Greek Ministry of Finance—equivalent to the U.S. Treasury Department—revealed what many had already suspected: Greece's fiscal situation was much worse than had been presented. The previous conservative government had manipulated the budget statistics to produce a less dire picture. Following this disclosure, investors in Greek bonds became increasingly uneasy, and yields on Greece's sovereign bonds (which move inversely to prices) shot up. Simultaneously, ratings agencies such as Moody's and Standard & Poor's began to put Greek debt on "negative watch," an ominous sign of the ratings downgrades to come.

The bond market is a reflection of the reluctance of investors to finance European debt. For euro-area sovereign bonds, the 10-year German bond serves as a benchmark, so the Greek-to-German bond spread is a useful indicator for how financial markets view the risk to Greek debt. Beginning in November 2009, the Greek-to-German 10-year bond spread began to widen when Greece overtook Ireland as the most fiscally strained euro-area country (see chart 3). This trend continued through the first quarter of 2010, and it was not until April that other euro-area debt spreads began to widen substantially, along with a meteoric rise in the Greek spread.

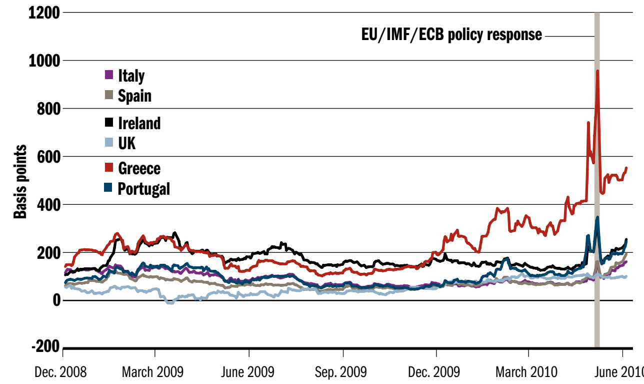
Another useful gauge of market confidence is the market for credit default swaps (CDS), which are derivative securities used to protect a bondholder in the event of a "credit event" such as a default or restructuring. A CDS on a Greek sovereign bond can be thought of as an insurance contract, or protection against the possibility of not being repaid on an investment. In this market, the CDS spread on a given debt security reflects investors' view of the creditworthiness of the underlying country. As with the bond spreads, the CDS spreads show the increasing price that an investor pays to purchase protection against a Greek default (see chart 4).

Following a downgrade by Fitch on December 8, 2009, Prime Minister Papandreou unveiled a plan to cut the 16.35 percent budget deficit by 4 percentage points. (Note that as late as October 2009, the government had expected the 2009 budget deficit to be 6 percent of GDP.) In the face of rising interest costs and to convince financial markets of their creditworthiness, Papandreou announced the first of several austerity measures, including budget cuts, tax hikes, and other fiscal changes (such as cracking down on tax evasion) aimed at narrowing the immediate budget deficit and lowering the debt-to-GDP ratio in the future. Nevertheless, as the widening bond spreads indicate, many holders of Greek debt were skeptical such reforms could be successfully carried out. Further confirming the difficulty of enacting these reforms, protestors who objected to the cuts immediately began striking in the streets of Athens.

The political and financial drama in Greece has since oscillated between greater protests and renewed, bolder austerity plans, all alongside the steady loss of market confidence, demonstrated in the widening bond and CDS spreads. In some sense, Greece began to be caught in a vicious cycle of losing market confidence. As the country's interest costs rose, budget reforms were proposed to regain access to market financing, yet those reforms were likely to dampen growth in the near term (if they could be carried out at all, over public protest). These concerns created greater pessimism that Greece could grow out of its debt burden, thus prompting a further selloff in Greek bonds and yet higher interest rates. Furthermore, because Greece is a member of the EMU, it could not devalue its exchange rate and so gain competitiveness in exports. Being locked into the single currency, at first a blessing with above-average GDP growth, had suddenly become a restraint on Greece—one less tool to use to grow out of its debt.

Chart 3

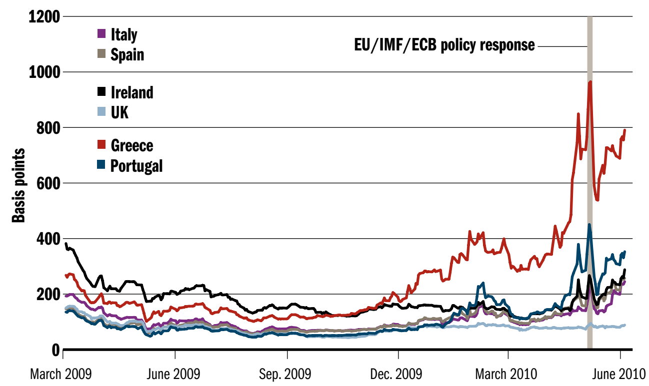
European Bond Spreads: 10-Year Bond Spread to German Bonds



Note: Data are through June 2010.
Source: Bloomberg

Chart 4

5-Year European CDS Spreads



Note: Data are through June 2010.
Source: Bloomberg

Act III: The crisis spreads to Europe

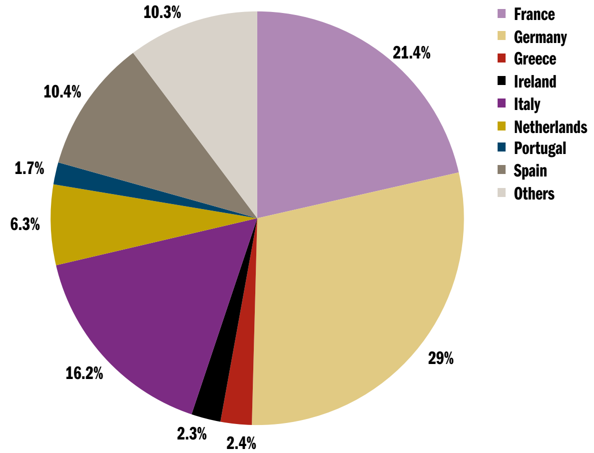
Greece has lost much of its access to financial markets. Complicating the situation is the fact that bond redemptions are imminent. The lack of a solid plan to consolidate its finances has engendered fears of a default or restructuring. What does this mean for the rest of the world? Indeed, Greece represents a small, 2.4 percent share of the total 16-member euro-area GDP (see chart 5 on page 10) and an even smaller sliver of the world economy, so it might seem unlikely that its financial disturbances could affect the broader world economy.

Yet the crisis in Greece has some analysts worried it could lead to contagion in the rest of Europe, and possibly beyond, for several reasons. Other countries' banking systems are large holders of Greek sovereign debt and are vulnerable to credit events, such as if Greece were to restructure the payments on its bonds leading to a partial default. The liquidity shocks to the wider global banking system could be significant if a large European financial institution were to fail, as happened when Lehman Brothers collapsed in the United States and roiled global markets. According to data from the Bank of International Settlements, the largest holders of Greek debt outside of Greece and the European Central Bank (ECB) are French and German banks.

This type of contagion also has the potential to spread outside of Europe. Aside from the declines in stock markets across the globe (but especially in Europe), financial markets have seen other worrisome signs of strain. One of these indicators

Chart 5

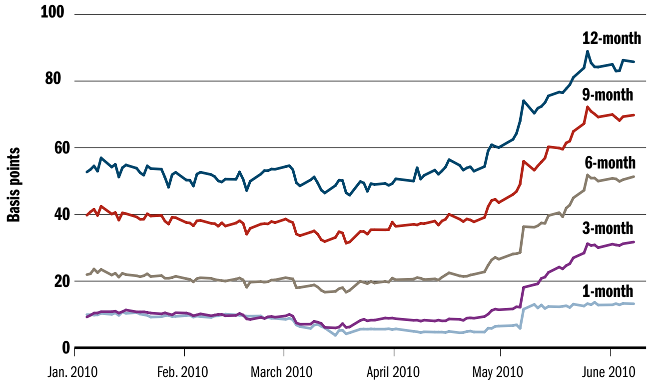
Euro-area GDP



Source: Statistical Office of the European Communities

Chart 6

Dollar LIBOR-OIS Spread



Note: Data are through June 2010.
Source: British Bankers' Association, Bloomberg

is the rates charged in the interbank lending market. The best proxy for this is the London Interbank Offered Rate (LIBOR), which is set every day by a panel of 16 large commercial banks based across the globe. The spread between the LIBOR rate and the Overnight Index Swap (OIS) rate, which tracks the expected path of monetary policy, reflects the amount of credit risk banks suspect in one another.

Chart 6 shows how this spread, across various maturities, has crept upward over the last several weeks in the second quarter. The three-month spread, for example, tripled from 10 basis points (bps) on April 27 to 31 bps as of May 27. The difference in the spread paid by the three U.S. banks on the panel and the

13 non-U.S. banks has also widened, reflecting the increasing perception of credit risk in European banks. Because the LIBOR-OIS spread is often used as a benchmark for other interest rates, increases in the LIBOR-OIS spread have consequences for consumers and businesses across the globe—creating a channel through which fears of a possible default in Europe could add stress to bank lending and lead to raised interest rates worldwide. Still, the LIBOR-OIS spread is well below the peaks it reached during the recent financial crisis.

Aside from the financial market disturbances that would accompany a credit event on Greek bonds, the situation has other potential for contagion. The PIIGS countries all have fiscal difficulties of varying degrees, with Greece's the most severe. If investors become increasingly reluctant to hold the debt of these other countries, fearing that like Greece they will be unable to implement the necessary reforms to lower their debt burdens or boost economic growth, then contagion will have occurred. Indeed, the bond and CDS spreads began to widen in the spring for countries other than Greece, indicating that investors were beginning to think twice about the debt of several European governments. Over the last few months, in line with Greece, ratings agencies have downgraded the debt of Spain and Portugal, further exacerbating the stress in sovereign funding markets.

It has been with such concerns in mind that investors have increasingly demanded over the last few months a more coordinated, pan-European response from policymakers to the debt and fiscal crisis.

Act IV: The rescues

With Greece effectively locked out of the bond market for financing and with repayments due in May 2010, something had to be done beyond the austerity measures proposed by the Greek government. On April 23, 2010, Prime Minister Papandreou officially requested $56 billion from the EU and the International

Monetary Fund (IMF), but following further downgrades by credit ratings agencies and jittery financial markets, this figure was clearly not enough.

European governments, including the German government, were initially reluctant to act. But after urgent negotiations with German leaders concluded on May 2 of this year, the European Commission, in conjunction with the IMF, agreed to a $140 billion rescue package for Greece. The initial response was a sharp tightening in spreads and a surge in European stocks. However, this optimism gave way to growing skepticism that the bailout would be anything more than a temporary fix. In effect, Greece is now insulated from having to issue bonds for the next three years. Some analysts suggest this is a disincentive for the Greek government to actually get their finances in order.

Indeed, following the initial euphoria of the $140 billion package for Greece, European markets began to decline across the board. Some investors feared full-blown contagion was under way. After a weekend of around-the-clock negotiations, the European Commission announced in the early hours of May 10 that it had assembled a rescue package of some $957 billion for distressed European governments. Of this, $76 billion was to be made available through an EU fund originally used to provide

ECONSOUTH NOW PODCAST

Andrew Flowers of the Atlanta Fed's research department discusses sovereign debt and the Greek fiscal crisis in an interview. On frbatlanta.org, select "Podcasts."

A Return to Central Bank Swap Lines

On May 10, 2010, the U.S. Federal Reserve reopened "temporary reciprocal currency arrangements," known as swap lines, with the European Central Bank (ECB) and the central banks of England, Japan, Canada, and Switzerland. With renewed worries about contagion from the Greek sovereign debt crisis, the Fed reestablished the swap lines set up during the 2007–08 financial crisis.

The swap lines allow the Fed to send U.S. dollars to the central banks in exchange for equal value in the currency of those countries. The goal is to provide liquidity to financial institutions around the world. Under the agreement, the ECB, for example, requests dollars from the Fed and in return sends to the Fed the same value in euros—hence the term swap. The foreign central banks auction the dollars to the highest bidders, typically financial institutions that need dollars to meet short-term obligations. The highest bidder pays the most interest on the dollar loan after a set term, usually about 84 days.

The underlying notion of the swap lines is banks and businesses around the world do business in U.S. dollars in addition to their home currency, so the foreign banks need money in both currencies. If the dollar shortages in Europe and other markets were to worsen, the problems could spread to the United States.

When the arrangement expires in January 2011, the Fed and the central banks will swap again—the Fed returning the euros and other currencies, and the ECB and other central banks returning the dollars. These transactions do not expose the Fed to foreign exchange risk because the exchanges occur at the same rate at the start and the finish. ∎

stability to countries suffering from balance of payments problems during the financial crisis. However, the major commitment was a $560 billion "special-purpose vehicle" operated by the euro area. Although operational details are still unclear, this vehicle is essentially a way to raise funds collectively to provide financing to euro-area countries that are otherwise locked out of markets. In addition, the IMF would provide up to $321 billion in support through its usual mechanisms—though it has never before initiated a rescue package on this scale. Further, the ECB announced it would begin purchasing public and private debt through a "securities market program" to stabilize financial markets. In fact, a week later the ECB purchased $21 billion in European sovereign debt. The response from the markets to this rescue package was strong. In addition, the U.S. Federal Reserve reopened credit swap lines on May 10 with the ECB as well as other central banks (see the sidebar on page 11).

Following the second, more comprehensive response that included help for the whole euro area, investors let their hopes rise—and markets surged as a result—only to pare back their expectations because of the lack of clear details surrounding implementation of the programs. The success or failure of the euro-area countries in stabilizing their economies will depend on whether they can enact the necessary reforms to shore up their budget deficits, lower debt ratios, and regain competitiveness in terms of labor costs. However, the euro/dollar exchange rate has so far in the second quarter steadily decreased, and many analysts forecast further depreciation.

Lessons about sovereign debt

The lesson for the euro area relates to the troublesome nature of having a common monetary policy with disparate fiscal policies, according to many economists, including Barry Eichengreen, an economist at the University of California, Berkeley, who has written extensively on the subject. Without adequate intra-euro fiscal monitoring to make the currency union work, countries like Greece, with policies that both elevate public debt and allow the loss of competitiveness, have the potential to find trouble. A broader lesson to be drawn from Greece's fiscal crisis applies to any country that tends to overspend—that is, the threat of a crisis of confidence, or the unwillingness of investors to trust a country to get its finances in order.

Time will tell how Greece and its European partners will regain stability and the confidence of investors. For other countries, the Greek fiscal crisis has been a sobering reminder of how precarious government finances are in this postrecession world. ∎

This article was written by Andrew Flowers, an economic analyst at the Atlanta Fed.