VOL. 5, NO. 9
SEPTEMBER 2010

EconomicLetter

Insights from the
FEDERAL RESERVE BANK OF DALLAS

Sovereign Debt: A Matter of Willingness, Not Ability, to Pay

by Ananth Ramanarayanan

Policy measures aimed at preventing sovereign default ultimately need to raise incentives to repay debt, either by making the payment of debt less costly or by raising default costs.

Greece, which shook international markets with the disclosure of its deep indebtedness, has struggled recently to borrow money. Among European governments, Ireland, Italy, Portugal and Spain have also had difficulty selling bonds.

Even though these governments probably have assets that exceed their debts, investors worry about the risk of default. This belief stems in part from the nature of sovereign debt. Governments aren't subject to formal bankruptcy regulations, leaving investors few legal rights over borrower assets, even if they could be liquidated. Consequently, the likelihood of default is not strictly determined by measures of solvency or asset liquidity—traditional indicators of a borrower's financial health. Rather, it's a matter of the political willingness to repay creditors.

A perceived high likelihood of default increases interest rates on the new debt necessary to finance deficits and payments on outstanding obligations. Policymakers in Europe have taken measures that include subsidized loans to support the troubled governments' finances. Whether such policies prevent default ultimately depends on whether they effectively boost incentives for repayment.

Rising Greek Deficits

Concerns over some European governments' debt levels escalated with Greece's disclosure late last year that its budget deficit was much higher than previously thought. In November, the newly elected government revealed a deficit of 12.7 percent of gross domestic product (GDP), more than twice the previous estimate of 6.1 percent. A further revision came in April from Eurostat, the European Union's statistical agency, which put the deficit at 13.6 percent of GDP. In the meantime, other countries

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with high debt levels and deficits—Ireland, Italy, Portugal and Spain—felt pressured to announce spending-reduction measures.

Debt levels in these five countries have risen for several years and are now higher than at any time since formation of the European Economic and Monetary Union (EMU) in 1999 (*Chart 1*). Greece and Italy each owed amounts equal to about 115 percent of GDP at the end of 2009, with Portugal at 77 percent, Ireland at 64 percent and Spain at 53 percent.

Government budget deficits have widened as well in recent years (*Chart 2*). In addition to Greece's 13.6 percent shortfall, 2009 deficits as a percentage of GDP were 14.3 percent in Ireland, 11.2 percent in Spain, 9.4 percent in Portugal and 5.3 percent in Italy. As a point of reference, the criteria for admission to the EMU (called the *Maastricht criteria*) mandate that government deficits not exceed 3 percent of GDP.

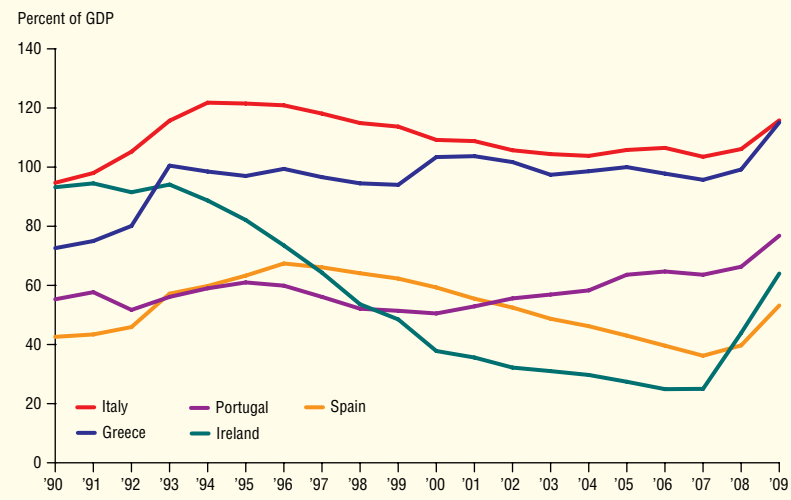
Looking at the excessive debt levels and budget deficits, it seems intuitive to link debt size to the likelihood that a government will be able to repay: At some point, increasing debt must exceed the resources available for repayment. However, the link isn't entirely clear. Why did a country such as Italy, which has just as much debt relative to GDP as Greece, have less trouble refinancing what it owes? Chart 1 shows that neither country's debt level relative to GDP is unusually high, even compared with the recent past. Japan had a debt-to-GDP ratio exceeding 180 percent in 2009, yet interest rates on Japanese government debt haven't risen to reflect a likelihood of default approaching that of Greece.

Lacking Bankruptcy Provisions

These outcomes can be puzzling if we think about sovereign debt in the same way we do consumer or corporate borrowing. Because of the structure of individual bankruptcy regulations, figuring out a borrower's creditworthiness or likelihood of default is a matter of weighing debts against assets. In the U.S., a company can seek federal court protection if it can't or doesn't want to repay its debts. Chart 7 bankruptcy, for

Chart 1

Government Debt Levels Rise



SOURCE: Eurostat.

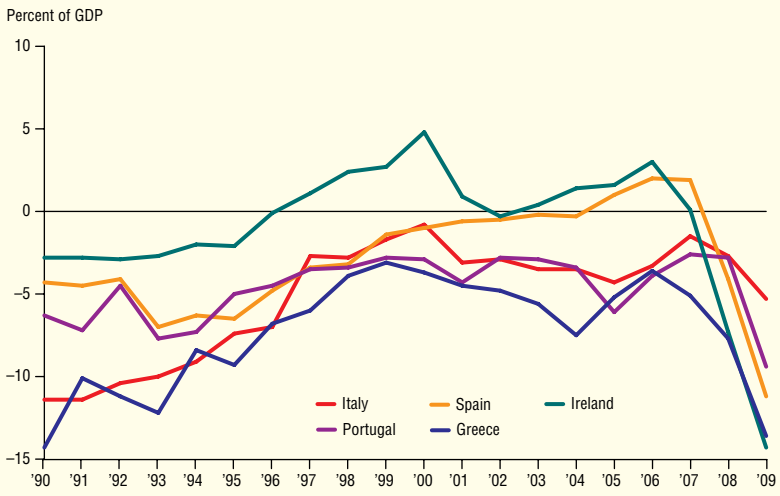
example, allows owners to discharge company debts in exchange for giving up the firm's assets to creditors. In the simplest case, the decision to default is based on whether it costs more to repay debt or relinquish assets. A firm whose assets exceed its debts is solvent and will repay its obligations as long as it has the liquidity to do so. Prospective creditors, therefore, can use knowledge of a firm's finances to determine the likelihood of default.

The sovereign default situation is very different because there is no legal framework that governs such debt and specifies creditor rights.[1] Therefore, a government will repay its debt only if it faces negative consequences for defaulting. Those costs include the possibility that a government will be unable to borrow in the future. Argentina, for example, defaulted in 2001 and still hasn't fully regained access to international financial markets. Other costs may include disruption to international trade flows because such transactions require financing that may be cut off. Sovereign debt repayment depends more on avoiding these default costs and is less linked to solvency per se.

Higher Interest Rate Cost

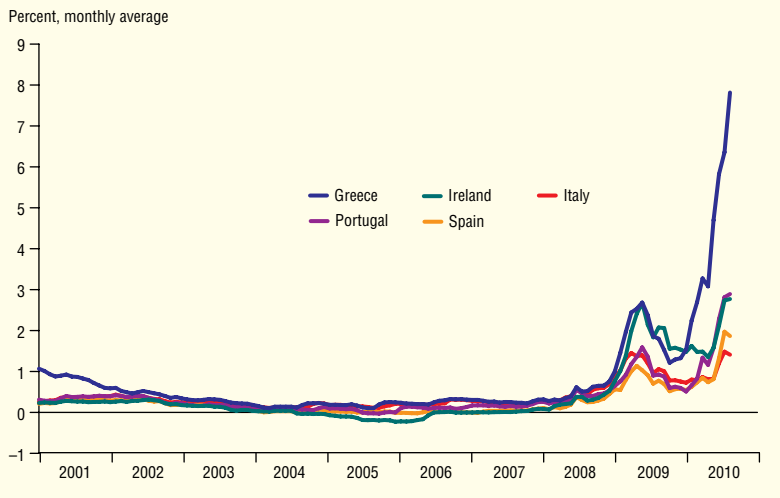
The incentives for governments to stay current on what they owe are hard to measure, but financial market indicators provide a way to gauge investors' perceptions of the willingness to repay debt. International investors became reluctant to lend to the troubled European governments, especially Greece, as indicated by interest rates on government borrowing. In particular, interest rate spreads for these countries' debt relative to safer German issuance rose dramatically. Chart 3 shows 10-year bond spreads—the difference between the interest rate on each country's 10-year bond minus the rate on Germany's relatively safe 10-year obligations. Movements in these spreads in recent months show that international investors required a much higher rate of return to buy each country's debt.

Chart 2
Budget Deficits Widen



SOURCE: Eurostat.

Chart 3
Interest Rate Spreads Spike



SOURCE: *Financial Times.*

Suppose investors can buy a German bond at an annual interest rate of 4 percent with practically no risk, or a Greek bond that has a 3 percent chance of default. Investors will go with the German bond unless the Greek government offers an interest rate around 7 percent—a spread of about 3 percent—to cover the probability of default. Such a relationship can't be expected to hold exactly in the data, but interest rate spreads can

still be used to learn about the likelihood of default.[2] Chart 3 shows that in May 2010, investors' perceived risk of default increased drastically for Greece and rose by a lesser degree for the other four countries.

Crafting Aid Packages

In this context, what is an effective response to such debt crises? European policymakers have announced various aid measures—for example, loans at below-market interest rates—for Greece and other troubled governments. With high debts and deficits, these governments must continue borrowing to fund expenses and make debt payments; wide interest rate spreads make that difficult.

Policies such as subsidized loans make governments feel richer and thus more willing to pay debt service than face the costs of default. More generally, policy measures aimed at preventing sovereign default ultimately need to raise incentives to repay debt, either by making the payment of debt less costly or by raising default costs.[3]

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Notes

[1] The features of sovereign debt and default, and the conditions that sustain sovereign lending, are the focus of a field of research motivated by developing economies' debt crises in the 1980s. This section draws on arguments made, for example, by Jonathan Eaton, Mark Gersovitz and Joseph E. Stiglitz in "The Pure Theory of Country Risk," *European Economic Review*, vol. 30, no. 3, 1986, pp. 481–513.

[2] If investors are interested in the expected value of their earnings, an interest rate of r satisfying $0.03 * 0 + 0.97 * (1+r) = 1.04$, giving $r \approx 0.07$, would make them indifferent between lending to the Greek government and lending to the German government in this example. In reality, there are several reasons interest rate spreads are not exactly equal to the probability of default. One reason is that investors do eventually recover some amount of repayment in a default. In this case, we would expect interest rate spreads to be smaller than the actual probability of default. Investors may be concerned not just with the expected value of their earnings, but also with the risk. In this case, we would expect interest rate spreads to be higher than the actual probability of default because investors need to be compensated for risk in addition to expected losses. The effects of risk and recovery in sovereign debt are discussed in "Default and the Maturity Structure in Sovereign Bonds," by Cristina Arellano and Ananth Ramanarayanan, Federal Reserve Bank of Dallas Globalization and Monetary Policy Institute Working Paper no. 19, April 2010.

[3] From a more long-term viewpoint, international policymakers have long discussed the benefits and feasibility of international bankruptcy regulations to make defaults and restructurings of sovereign debt more orderly. Anne O. Krueger, the former first deputy managing director of the International Monetary Fund, presented the case for a sovereign debt restructuring mechanism with features similar to the U.S. Bankruptcy Code in *A New Approach to Sovereign Debt Restructuring*, Washington, D.C.: International Monetary Fund, 2002.

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