Sovereign Debt: Two Perspectives
Public debt and deficits in the United States and many European countries have risen significantly in recent years. Many governments have responded with austerity policies, which call for tighter fiscal policy aimed at reducing debt levels. The debate over austerity policies raises many questions. What is the relationship between high debt levels and economic growth? Are austerity policies an appropriate response to high debt levels, even during weak economic conditions? Assuming such policies are enacted, how will the economy respond? The austerity debate—among both politicians and economists—is contentious, but arguably one of the most important public policy debates of our time.

Austerity: The Challenge of Public Policy Debate

The sovereign debt crisis forced several European countries to adopt severe austerity measures to reduce their debt, raising debate about whether such policies are the appropriate response to a debt crisis.

The signature academic work on the relationship between debt and economic growth is Carmen M. Reinhart and Kenneth Rogoff’s book *This Time Is Different: Eight Centuries of Financial Folly* as well as other papers. One widely cited statistic from these Harvard economists’ work—that growth begins to slow when the debt-to-gross domestic product (GDP) ratio of a country rises above 90 percent—was found to contain an error earlier this year. Three economists at the University of Massachusetts–Amherst found that growth in countries above the 90 percent threshold actually averaged 2.2 percent growth, not a drop of 0.1 percent as Reinhart and Rogoff had originally published. But a mistaken calculation has not stopped a deeper debate about causality: Do high debt levels cause lower growth, or do debt levels increase because growth slows? And is there really a specific threshold at which debt dynamics become unfavorable?

These questions are at the center of the austerity debate, given how growth has slowed in developed countries since the Great Recession. In the United States, real GDP growth has averaged only 2.2 percent since the end of the recession in mid-

Fiscal Adjustment in Europe: Country by Country

The sovereign debt debate does not offer a one-size-fits-all solution. Countries have taken a variety of approaches to improving their fiscal health, but the costs of the progress made have been high for all.

Nearly four years have passed since the sovereign debt crisis erupted in Europe after Greece revealed the dire state of its public finances, shattering investor confidence in the country’s ability to repay its debts. The severity of the fiscal situation in Greece in turn raised concerns about other European countries with weak government finances, and their borrowing costs soared. After having lost market access at affordable interest rates, Greece, Ireland, and Portugal received massive financial rescue packages from the European Union (EU) and International Monetary Fund (IMF). These lenders required the three countries that received the EU/IMF financing to implement harsh fiscal, structural, and financial reforms. Rising borrowing costs also put pressure on Italy and Spain to undertake reforms that would ensure their governments’ ability to pay current and future debts. The five countries—collectively often referred to as “peripheral Europe”—entered a period of severe austerity aimed at stabilizing their public debt burdens and improving the competitiveness of their economies.

Having committed to multiyear plans to reduce budget deficits to 3 percent of gross domestic product (GDP) or lower, the peripheral European countries have by now completed roughly half of their targeted fiscal adjustments—a remarkable

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achievement, considering that their economies have shrunk over the past few years. It’s worth examining the fiscal progress made thus far by the peripheral countries, and the socioeconomic costs of the austerity measures undertaken to achieve it, country by country.

**Greece: The weakest link**

While Greece has been perceived by many as lacking commitment to difficult reforms, in reality, the country has made an immense effort over the past three years. It has implemented fiscal tightening equivalent to about 20 percent of GDP and reduced its budget deficit to 6 percent of GDP in 2012 from a peak of more than 15 percent in 2009. That is a notable accomplishment, especially considering that Greece’s economy has been in recession since 2008.

The austerity measures have been harsh. Between January 2010 and January 2013, effective tax rates increased by at least 20 percent, and pensions and government sector wages fell more than 25 percent. The minimum wage was reduced by 20 percent and by more than 30 percent for new entrants to the labor market. Social benefits were cut, and spending in key sectors such as health care was also slashed. In the meantime, the economy shrank by a fifth and the unemployment rate soared from about 10 percent to more than 26 percent.

**Ireland: Public sector bears the brunt**

In 2010 Ireland was the second country to receive a financial rescue package from the EU and IMF. The country has met or exceeded internationally mandated fiscal targets since late 2010, in part because the targets were not as ambitious as those imposed on other countries. Ireland’s budget deficit declined from over 11 percent of GDP in 2009 to less than 8 percent last year.

The burden of fiscal austerity in Ireland has fallen largely on the public sector through cuts in public pay and services. In 2009 and again in 2010, public sector wages were cut by 15 percent, on average. Social welfare benefits were decreased at a comparable rate, to some extent because eligibility and means-tested criteria for benefit payments became more stringent. Since 2008, public sector employment has been reduced by nearly 10 percent, mostly in health and education. Notably, Ireland’s 12.5 percent corporate tax rate, the lowest among the EU’s major economies, has not increased, reflecting public consensus that raising the rate would lead to capital flight and collapse in foreign direct investment from foreign manufacturers. Likewise, marginal tax rates remain below the European average.

Ireland’s economy was the first in the euro zone to enter a recession in the wake of the 2008 financial crisis and is second only to Greece in terms of lost output. Job losses have been severe as well. The unemployment rate rose rapidly from less than 5 percent in 2007 to a peak of 15 percent in 2011. The unemployment rate would perhaps have been even higher, had it not been for a jump in emigration, especially by young people. One Irish person emigrates every six minutes, according to the *Financial Times*.

**Portugal: A solid effort**

Portugal managed to halve its budget deficit by 2012 from a peak of 11.5 percent of GDP in 2010. The country has also met most of the fiscal targets set by EU/IMF creditors. Portugal’s austerity measures have included increases in the value-added tax (VAT) and property and income taxes, as well as a reduction in personal income tax deductions. Fees to access public services, such as hospitals, courts, and highways, have been raised, public sector hiring has been frozen, and spending on education has been cut. The economy is now approximately 7 percent smaller than its peak size, and the unemployment rate, currently at about 17 percent, is double its prerecession level.

**Spain: From fiscal woes to employment crisis**

Pressured by rapidly rising bond yields, Spain’s government embarked on fiscal tightening in May 2010. Austerity measures from 2010 to 2012 were about equally divided between revenue increases and spending cuts. Reduction in spending mainly came from lower public investment, which fell by 60 percent from 2009 to 2012. Higher revenues were achieved by VAT, personal and corporate income tax increases, and the reintroduction of the wealth tax. Spain managed to reduce its budget deficit from a high of 11 percent of GDP in 2009 to 7 percent last year. During that period, output fell by a surprisingly small 2 percent. The unemployment rate, however, rose by more than 6 percentage points to over 26 percent, more than three times the rate in 2007.

**Italy: Focus on structural reforms**

Italy did not run up budget deficits in response to the 2008 financial crisis. However, its public debt is one of the largest in the world. As Italy’s borrowing costs escalated in 2011, the government announced a set of reforms aimed at lowering its debt burden and improving the country’s competitiveness. Most of the fiscal adjustment in Italy in 2012 came from tax hikes, even though tax revenues had already amounted to about half of the country’s GDP. In hindsight, the impact of higher taxes on near-term growth appears to have been underestimated. Personal disposable incomes were squeezed, households were reluctant to draw on savings, and the recession deepened. The
unemployment rate has been on an upward trajectory in recent years, but at 12 percent it is still the lowest among the peripheral countries.

**Moderating fiscal tightening**
The European debt crisis has recently waned, partly because of the efforts undertaken by the European Central Bank and partly as a result of notable improvements in government finances and some progress on structural reforms. The economic environment, however, remains challenging, with only tentative signs of stabilization in some countries and virtually no employment growth. Earlier this year, the European Commission acknowledged the crippling effect of harsh austerity measures on economic growth and has relaxed fiscal targets for some countries, pushing for more growth-friendly fiscal adjustment. Going forward, the pace of fiscal tightening will likely moderate and most peripheral countries should return to positive growth next year.

This article was written by Galina Alexeenko, director of the Regional Economic Information Network at the Atlanta Fed’s Nashville Branch.

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2009, well below historical norms. And the euro zone has been in recession, with real GDP declining an average of 0.2 percent for the past two years (though growth turned slightly positive in the second quarter of 2013). The research in response to Reinhart and Rogoff suggests a less clear relationship between debt levels and economic growth.

**Fiscal policy decisions**
What about Greece and other European countries that have suffered deep recessions because of their perceived debt levels? Economist Roberto Perotti, a professor at Università Bocconi in Milan, Italy, has examined how the fiscal policy decisions of an indebted country—whether to enact austerity, and, if so, how much—depends on its “fiscal space,” or whether it is under pressure from higher interest rates demanded by sovereign debt investors (sometimes dubbed “bond vigilantes”). Some countries are effectively forced to enact austerity policies by raising interest rates on their bonds. To reassure investors they will not default, countries increase taxes and cut spending to restore confidence. That approach has been the case with Greece, and to a lesser extent in other troubled European countries such as Spain, Italy, and Portugal. In these circumstances, authorities enacted austerity policies to avoid a fiscal crisis and ensure access to market funding.

However, these circumstances may differ from those of the United States, the United Kingdom, or Japan—countries with full control of their own currencies and aggressive central banks willing to be lenders of last resort. Perotti concludes that for indebted developed countries maintaining market confidence and assuming higher fiscal multipliers given excess “slack” and near-zero monetary policy, the optimal fiscal response should be short-term fiscal stimulus and longer-term consolidation.

**Fiscal multiplier measures and effects**
A separate but related issue in the debate over austerity entails the fiscal multiplier. The multiplier is the amount of output growth resulting from one unit of fiscal spending. In the United States, for example, a multiplier of 0.7 would imply 70 cents of real GDP growth from $1 of government spending. A multiplier of 1.2 says $1 of spending cuts implies a decline in output of $1.20. There is intense debate about what methodology should be used to calculate the multiplier and how it varies based on macroeconomic conditions or by country. Many macroeconomists argue that in an environment where the central bank has interest rates near zero, a so-called liquidity trap, the multiplier might be larger. Monetary policy is currently near the zero lower bound in the United States, the UK, and the euro zone.

Furthermore, the multiplier might be larger when there is a lot of slack in the economy. “Slack” is a term for excess capacity, both of capital (like underutilized factories) and labor (higher unemployment). Similar to the methodological debate over multipliers, there are various alternative views on what exactly slack is and how to measure it.

Just a few years ago, the International Monetary Fund (IMF) estimated multipliers around 0.5, implying little negative impact on growth from fiscal austerity. However, in October 2012 the IMF released a report, *Coping with High Debt and Sluggish Growth*, in which IMF researchers and authors found a relationship between countries with higher fiscal austerity plans and those countries’ subsequent growth forecast errors.
In other words, countries with greater austerity had disappointing growth. In a follow-up paper this year, the IMF’s Olivier Blanchard and Daniel Leigh expanded on the earlier methodology and concluded:

“[T]here is no single multiplier for all times and all countries. Multipliers can be higher or lower across time and across economies. In some cases, confidence effects may partly offset direct effects. As economies recover, and economies exit the liquidity trap, multipliers are likely to return to their precrisis levels. Nevertheless, it seems safe for the time being, when thinking about fiscal consolidation, to assume higher multipliers than before the crisis.”

Some economists dispute the IMF’s empirical results of multiplier understatement, saying that the countries included in the study can bias the results in a significant way. For example, Germany and Greece are outliers relative to the rest of the euro zone—Germany has lower debt and higher growth and Greece, the opposite, relative to the euro zone. Removing one or the other can dramatically affect the multiplier calculation. However, even studies skeptical of multiplier understatement can agree that higher multipliers exist for economies in recession.

Given the recent tide of economic research casting doubt on the wisdom of implementing austerity in a weak or recessionary economy, the debate now turns to politics. In 2013, the United States began implementing a large amount of fiscal austerity, in the form of spending cuts (from the sequester) and payroll tax increases (part of the fiscal cliff). The Congressional Budget Office estimates that fiscal austerity will reduce real GDP growth in 2013 by around 1.5 percentage points. And this prediction does not factor in possible fiscal disturbances that could occur later in the year given the need for congressional authorization to raise the debt ceiling and avoid a government shutdown. While the U.S. deficit has been falling recently, and thus debt levels are moving lower, fierce political polarization on the issue remains. In Europe, there is intense debate both in the UK and the euro zone about the wisdom of austerity policies, with public protests against further cuts to social services. The lack of any substantive economic recovery in the euro zone is making the austerity debate all the more intense. In both the United States and Europe, this issue is not going away.

This article was written by Andrew Flowers, a senior economic research analyst in the Atlanta Fed’s research department.

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who has performed well in the class or advice that the student might want to consider another major. That advice is also based on predictive analytics, giving the adviser more concrete information on what course of study the student is likely to perform well in than a gut feeling on the adviser’s part.

Renick noted that large public universities like GSU are receiving much criticism these days—about wasted dollars and about failing the very students they are designed to serve. He credits this criticism for GSU’s success in part because it has “lit a fire” for the university to tackle some of these issues. “We believe that it’s not acceptable to take student tuition dollars and not provide them a clear path to success.”

Welcome good news
The term “big data” in the context of government can evoke images of “Big Brother,” especially given the recent news about the surveillance program of the U.S. National Security Agency. However, in most instances, laws are already in place to protect individual privacy. For example, “there is a federal law, FERPA [the Family Educational Rights Privacy Act of 1974], that restricts the university from releasing student information to anyone outside the university but the student,” Renick said. Even parents are forbidden from obtaining their offspring’s information—including grades. As long as these safeguards are upheld, the potential of such programs to make government more efficient and bring about changes that benefit individuals far outweighs the risks. “There are dozens and dozens of government services that could benefit from big data,” Bourdeaux said. And thanks to big data already in action, Georgia residents like Darryl and Maria are better off.

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