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# Economic Letter

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## Can the Nation Stimulate Its Way to Prosperity?

*by Jason Saving*

In February 2009, President Obama signed into law the American Recovery and Reinvestment Act, better known as the fiscal stimulus plan. It was designed to help address the economic storm from which the U.S. economy has only begun to recover.

More than a year earlier, the nation had entered recession, with its gross domestic product (GDP) declining at its fastest quarterly rate since 1982 (*Chart 1*). Increases in the unemployment rate were also apparent, and, at least by some measures, financial markets were facing troubles not seen since the Great Depression of the 1930s.

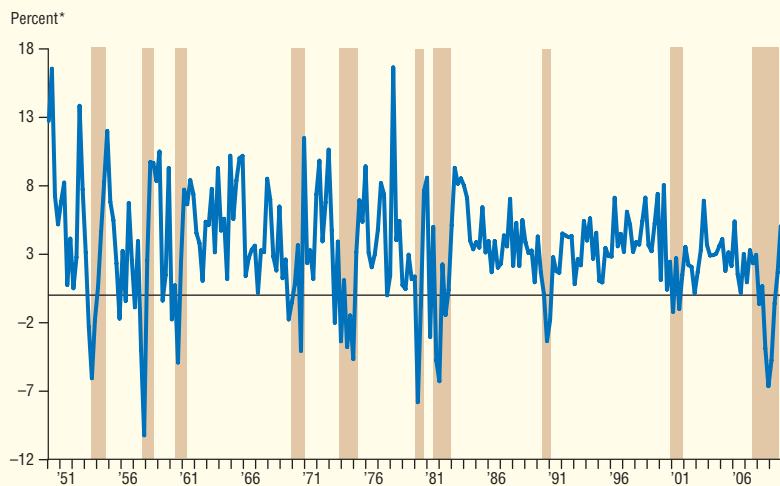
The Federal Reserve and Congress responded to the most recent crisis with measures to unclog credit channels, shore up the faltering housing market and provide breathing space for large, interconnected financial firms on the verge of collapse. Amid the turmoil came fiscal actions—notably the fiscal stimulus plan.

Passage of the stimulus plan was accompanied by a mix of great expectations and controversy. Christina Romer, incoming head of the Council of Economic Advisers at the time, contended the plan would reduce the unemployment rate 2 percentage points by mid-2010 and create or save 3.65 million jobs by fourth quarter 2010.<sup>1</sup> Others argued that the plan would do far less for the economy and couldn't be justified at a time of ballooning budget deficits.

These conflicting claims underscore the need to examine fiscal stimulus in a rigorous light to better understand what it can—and can't—accomplish. What is the economic argument for fiscal stimulus? Was it targeted and timely during the most recent crisis, as theory suggests it should be? And what can be said about its costs and benefits thus far?



**Chart 1**  
**Recent GDP Plunge Worst Since 1982**



\*Quarter over quarter; seasonally adjusted, annualized rate.  
 NOTE: Shaded areas represent recessions.  
 SOURCE: Bureau of Economic Analysis.

### Economics of Fiscal Stimulus

In ordinary times, economic policy seeks to maximize economic growth over the long run by encouraging—or at least not discouraging—saving and investment. This enables the economy to grow at a faster rate over the longer term, providing citizens with higher living standards. To be sure, today’s consumption is important, but economic policy that looks to the long run shouldn’t distort incentives to save and invest any more than necessary.

To make an analogy, suppose everyone were given economic “seed corn” and offered the choice to either eat it or plant it. Eating provides an immediate benefit in the form of a better meal today but reduces the size of future harvests. Planting makes today’s meal smaller but leads to better harvests down the road. Both are necessary because people must eat today if they’re going to invest for tomorrow, but tipping policy toward eating over planting undermines future growth.

Fiscal stimulus turns this logic on its head by encouraging short-term consumption at the expense of longer-

term investment. The hope is that consumers will temporarily spend more than they otherwise would and provide a short-term jolt to the economy, with the fiscal tab postponed until the economy is on sounder footing.

When might fiscal stimulus be most useful? The textbook case is a short but deep recession during which banks are unwilling to lend. Individuals can’t smooth their consumption by borrowing the way they ordinarily do, making the recession more painful than a downturn would typically be. The stimulus, in effect, covers for consumers’ inability to get loans to tide them over during recession.

The textbook case becomes stronger when interest rates are near zero and conventional financial channels are impaired, temporarily reducing the return to investment and perhaps lessening the hit to long-run growth that stimulus might induce in more normal times (because the investments would have had a small return anyway).

Whether this makes fiscal stimulus a “good idea” is a matter of opinion, depending on subjective assessments

of the relative value of the future and the present and how much current conditions tilt the calculus toward consumption today. But economics provides at least a framework from which fiscal stimulus can be considered and debated.

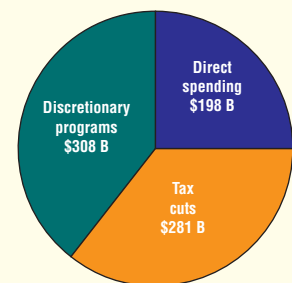
### Targeted and Timely?

Outlays from the recent fiscal stimulus can be divided into three broad categories of roughly equal size: direct spending, discretionary spending and tax cuts (*Chart 2*). Briefly examining these categories provides a broad overview of where stimulus monies flow and insight into how effective those monies may be at boosting short-run economic growth.

Direct spending goes more or less directly into the well-being of ordinary Americans, with Medicaid and various unemployment insurance programs receiving the bulk of the funding. Discretionary spending goes to an array of federal agencies that parcel out funding to such projects as roads and schools. On the tax cut side of the ledger, funding goes primarily to the Making Work Pay credit of \$800 per couple and a one-year patch to shield families from the alternative minimum tax (AMT).

Whether the plan provides bang for the buck, of course, is an entirely

**Chart 2**  
**Stimulus Plan**  
**Is Three-Pronged**



SOURCE: Congressional Budget Office.



different question. Not surprisingly, boosting consumption in the short run can be done most effectively by putting money into the hands of those least likely to save it—those who are poor or unemployed.

Translating these principles into policies can be done with multipliers, which gauge the impact of spending hikes or tax cuts on the broader economy. The higher the multiplier, the greater the short-term benefit.

Research suggests that unemployment insurance extensions and other programs that target individuals who have high marginal propensities to consume—that is, who tend to spend new dollars—provide the greatest fiscal bang for the buck, creating considerably more short-run economic activity than they displace (*Chart 3*).

In the middle of the pack are payroll-tax holidays—for example, the Making Work Pay credit—and generic budgetary aid to states. Both create on average slightly more short-run economic activity than they displace.

Trailing far behind these measures are more generous business depreciation provisions and exten-

sion of the AMT patch, which provide little boost to short-term consumption because they largely fail to target spenders.

Viewed through this prism, the stimulus plan is moderately well-targeted, with especially stimulative elements like an unemployment insurance extension intermingled with less-stimulative elements.

One caveat is that these multipliers assume stimulus funding will be *timely* as well as properly *targeted*. Just as a well-cooked meal cannot provide needed nourishment if the customer has perished in the meantime, well-targeted funding cannot bolster recessionary economic activity if it does not arrive until the recession is over.

Most of the stimulus funds—more than 40 percent—are coming in 2010 (*Chart 4*). A third arrived in 2009, when the nation was clearly struggling. A quarter won't hit until 2011–19, long after the recession began.

Overall, the stimulus plan does fulfill the “targeted and timely” criteria moderately well. Substantial portions of the plan are targeted toward individuals likely to spend it quickly, and

substantial portions hit the economy during or at least shortly after the recession. Whether it is actually helping the economy is another question—one to which we now turn.

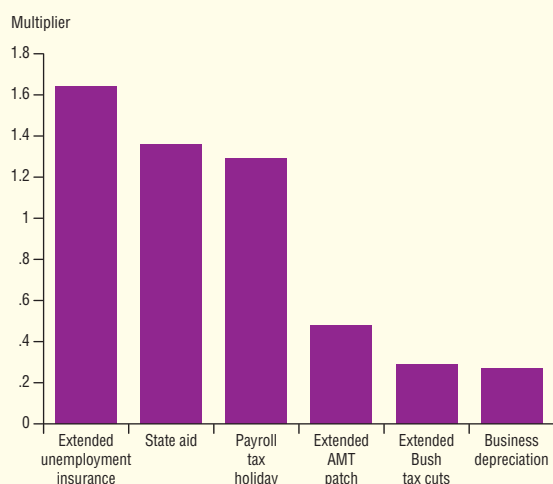
### The Deficit Dilemma

Compared with no stimulus, the stimulus plan in 2009 alone was expected to increase GDP by 1 to 3 percentage points, raise payroll employment by 500,000 to 1 million jobs and lower the unemployment rate by half a percentage point.

At first glance, it doesn't appear the stimulus achieved these objectives. In the year after the plan's passage, the labor market continued to hemorrhage jobs and unemployment climbed above 10 percent. Indeed, the unemployment rate is now higher than it was expected to be *without* the stimulus plan—and has been every month since the plan's passage (*Chart 5*).

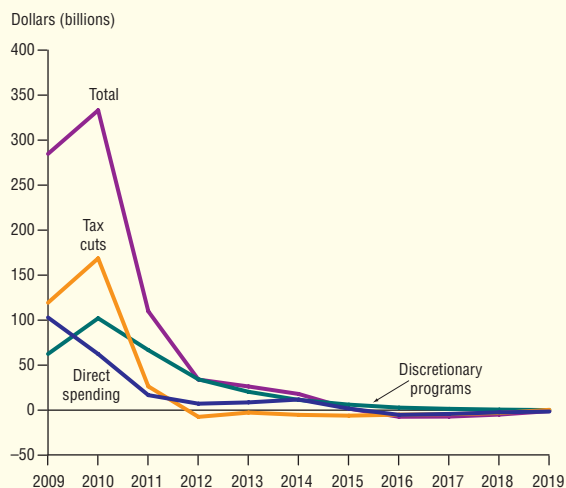
This seems inconsistent with official estimates of the plan's performance. The first quarterly report, including data through September 2009, found that the plan had created or saved about 1 million jobs and boosted

**Chart 3**  
**Extended Unemployment Insurance Has Greatest Multiplier Effect**



SOURCE: Mark Zandi, Moody's Economy.com.

**Chart 4**  
**Most of Stimulus Money to Arrive by 2012**



SOURCES: Congressional Budget Office; authors' estimates.



GDP 2 to 3 percentage points in the second and third quarters.<sup>2</sup> Subsequent analysis from the Council of Economic Advisers and several private forecasting firms found even more favorable results, seeing the stimulus on track to save or create the 3.5 million jobs that were originally forecast for the 2009–10 period. How can this be?

The key proviso is this: what might have been. Simply put, there's no way to know how badly the economy *would have* performed in the absence of fiscal stimulus and no way to prove how many jobs would have existed without stimulus.

Conventional models with standard multipliers generally peg the stimulus plan's impact in the range specified by the council. But this is not true of all models. Some recent research finds that fiscal stimulus is especially effective when the federal funds rate is near zero, as it has been in recent times, suggesting that economic conditions might have been very bad without the stimulus plan.<sup>3</sup>

Other research finds that fiscal stimulus has little impact even at near-zero rates because individuals understand that deficit-financed government spending will cost them later.<sup>4</sup>

While the overall weight of the evidence suggests the stimulus plan has provided a short-term boost, it's unclear exactly how large this boost has been. What is clear is that stimulus funds have exacerbated near-term fiscal imbalances.

The deficit is now expected to spike to \$1.4 trillion in 2009–10 and remain above \$500 billion annually for the next decade, raising concerns that private-sector borrowing may be crowded out to some degree and future tax burdens may grow. Painful choices—among them, withdrawing fiscal stimulus over time—will be necessary as the economy recovers if these imbalances are to be corrected.

*Saving is a senior economist in the Research Department of the Federal Reserve Bank of Dallas.*

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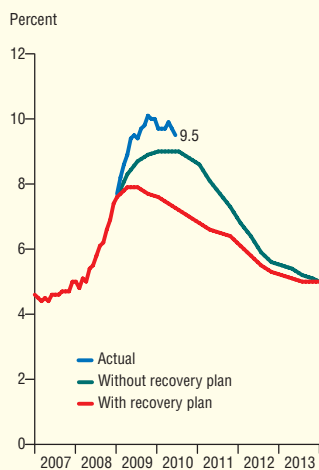
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FEDERAL RESERVE BANK OF DALLAS  
2200 N. PEARL ST.  
DALLAS, TX 75201

**Chart 5**  
**Unemployment Exceeds No-Stimulus Forecast**



SOURCES: Bureau of Labor Statistics; "The Job Impact of the American Recovery and Reinvestment Plan," by Christina Romer and Jared Bernstein, January 2009.

### Notes

<sup>1</sup>See "The Job Impact of the American Recovery and Reinvestment Plan," by Christina Romer and Jared Bernstein, January 9, 2009. At the time the report was released, Romer was incoming chair of the Council of Economic Advisers and Bernstein was Vice President-Elect Joe Biden's economic adviser.

<sup>2</sup>See "The Economic Impact of the American Recovery and Reinvestment Act of 2009, First Quarterly Report," Council of Economic Advisers, September 10, 2009, [www.whitehouse.gov/assets/documents/CEA\\_ARRA\\_Report\\_Final.pdf](http://www.whitehouse.gov/assets/documents/CEA_ARRA_Report_Final.pdf).

<sup>3</sup>See "When Is the Government Spending Multiplier Large?" by Lawrence Christiano, Martin Eichenbaum and Sergio Rebelo, NBER Working Paper no. 15394, National Bureau of Economic Research, October 2009.

<sup>4</sup>See "Understanding Policy in the Great Recession: Some Unpleasant Fiscal Arithmetic," by John H. Cochrane, NBER Working Paper no. 16087, National Bureau of Economic Research, June 2010.