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HOW WE KNOW THE RECOVERY PACKAGE IS HELPING

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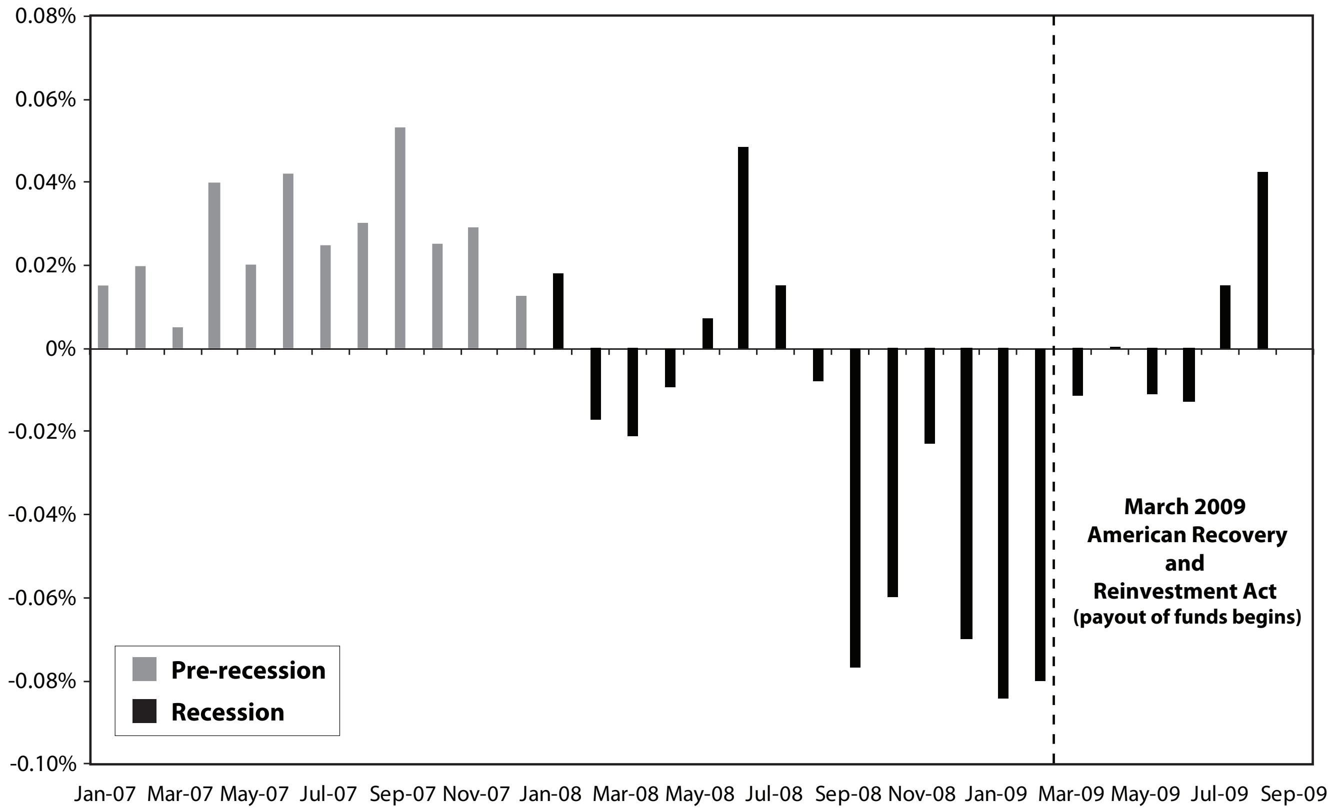
The Bureau of Economic Analysis (BEA) reported today that gross domestic product (GDP) grew by 3.5% in the third quarter of 2009, the first positive growth in more than a year and the largest growth since the third quarter of 2007. GDP is the market value of all goods and services produced in the United States, and it is perhaps the single most-watched barometer of the economy's health.

This third quarter data will almost surely re-ignite debate as to whether or not the American Recovery and Reinvestment Act (ARRA) aided a recovery from the recession that began at the beginning of 2008. A serious look at the evidence argues that this debate should be closed: ARRA has played a starring role in pushing the economy into positive growth. Specifically:

- ARRA provided roughly $81 billion in direct spending, transfers to states and to individuals, and tax cuts in the third quarter;
- This spending added 2.7 percentage points to annualized growth of GDP in the third quarter;
- Cumulatively, ARRA has created or saved between 1.1 and 1.5 million jobs since it was passed into law.

FIGURE A

Monthly percentage change in GDP (rolling three-month average)



NOTE: The first stimulus package, the Economic Stimulus Act passed in February 2008, provided a large but temporary boost to both GDP and personal disposable income that appeared in the second quarter of 2008.

SOURCE: Macroeconomic Advisors monthly GDP report.

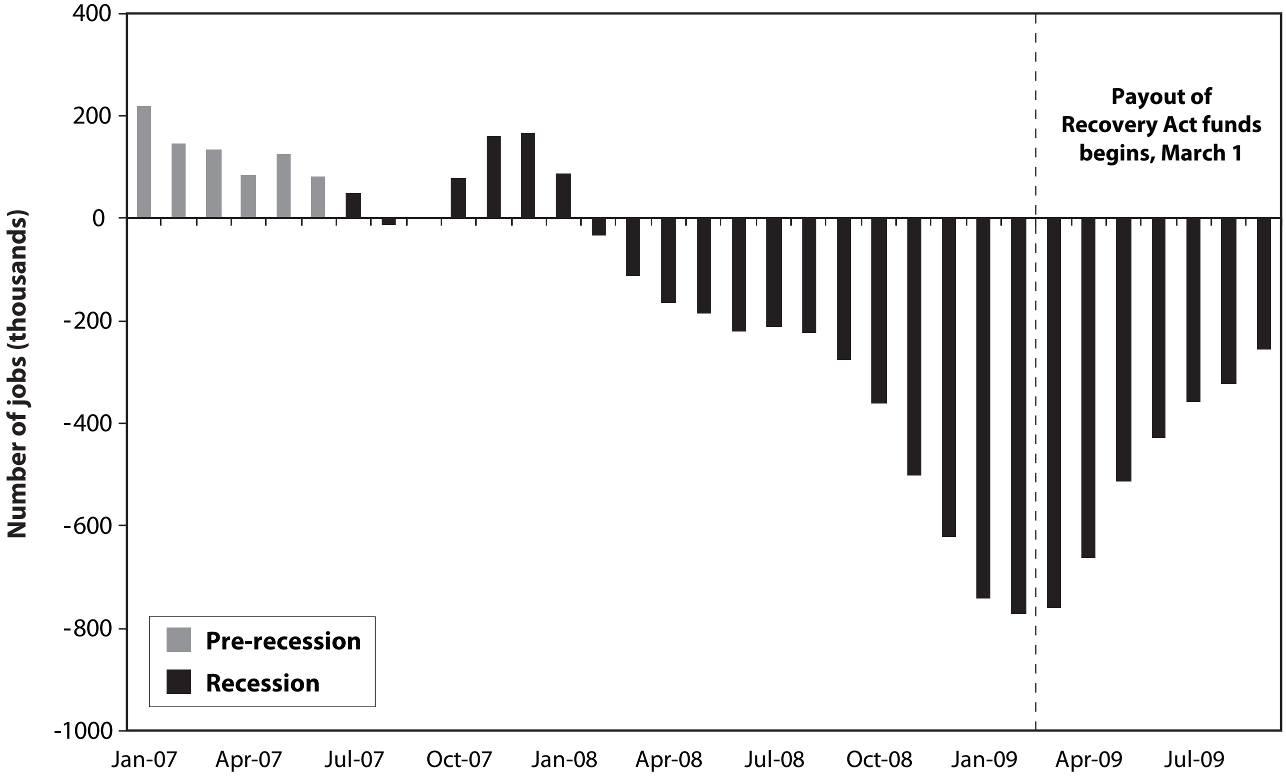
The timing was right

ARRA was signed into law at the end of February. In the six months spanning February to August, Macroeconomic Advisors (a private-sector consulting firm that is a common source of monthly GDP data) estimates that GDP rose at an annual rate of 1.5%. In the prior six months (from July 2008 to February 2009) they estimate that GDP *contracted* at an annual rate of 7.8% (**Figure A**).

Furthermore, an average of 770,000 jobs a month were lost in the first three months of 2009. But in the first quarter that experienced the full effects of ARRA (April, May, and June of this year), the pace of job loss fell by more than 40%, cut to 428,000 jobs lost each month. The second quarter after ARRA came on-line (July, August, and September) saw this pace of job loss fall by more than 40% again, with 256,000 jobs lost each month. To be sure, continuing job loss is troubling, but it seems clear that the ARRA led to a marked slowdown in the rate of labor market deterioration (**Figure B**).

FIGURE B

Changes in payroll employment, rolling three-month average



NOTE: The first stimulus package, the Economic Stimulus Act passed in February 2008, provided a large but temporary boost to both GDP and personal disposable income that appeared in the second quarter of 2008.

SOURCE: Bureau of Labor Statistics.

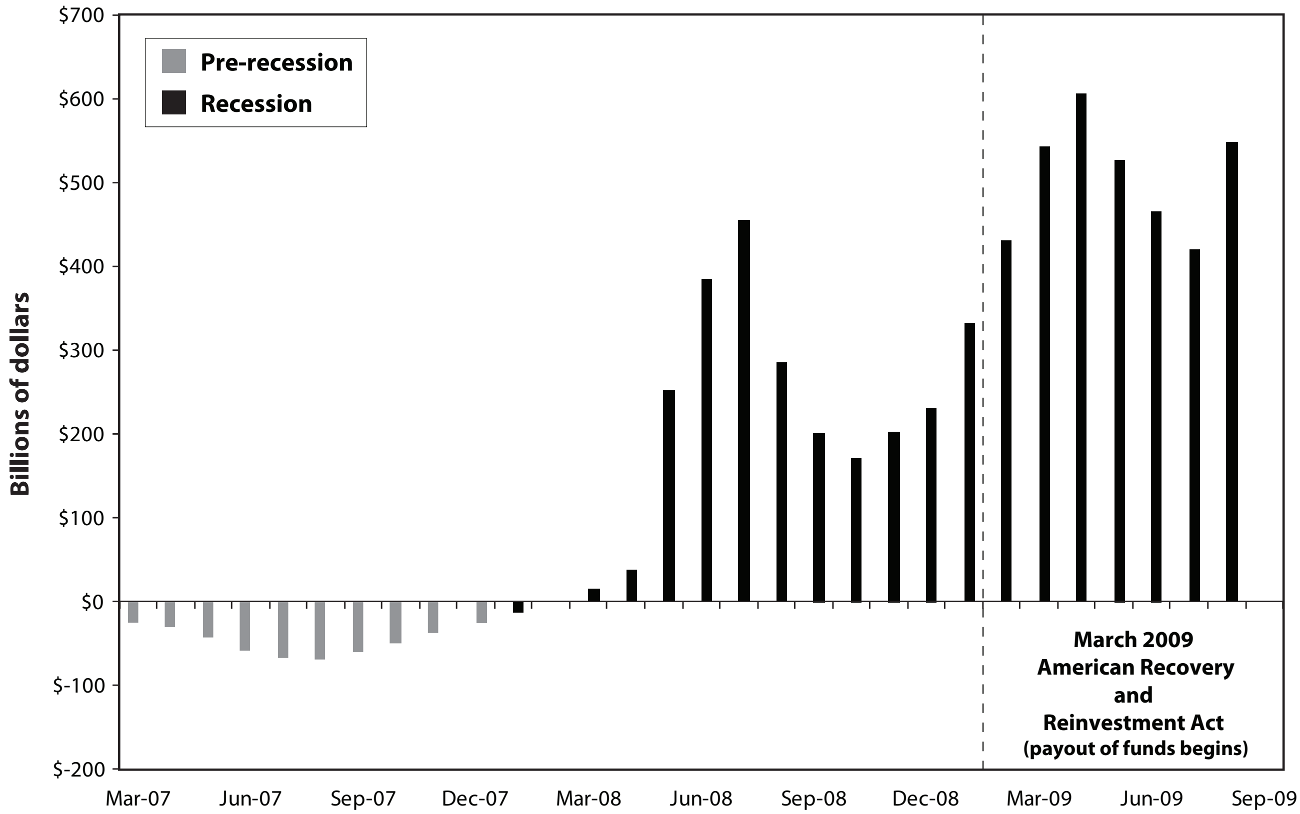
What has not driven the recovery

How else do we know that the recovery package is responsible for the improving economy? For one, the public policy lever traditionally used to fight recessions—the lowering of short-term interest rates by the Federal Reserve—had been pulled long ago to no avail. In the first two months of 2008, the Federal Reserve began slashing these rates at a historically rapid pace (cutting a full percentage point off the effective federal funds rate in a single month) and continued cutting until they went below 1% in late 2008, where the rate has remained for over a year.

More evidence of the ARRA's effectiveness can be found when comparing the growth in incomes generated by the private sector with the growth in incomes adjusted for the tax cuts and government transfers (tax cuts and transfers were central planks of the ARRA). Such a comparison makes it strikingly apparent that the passage of ARRA greatly increased both tax cuts and transfers to households since February. **Figure C** shows the difference in year-over-year growth in *personal income minus transfers* versus *disposable personal incomes*. The former measure is a decent proxy for what the private sector is churning out in terms of growth of incomes and purchasing power, while the latter factors in the boost to incomes and purchasing power resulting from reduced taxes and greater transfers.

FIGURE C

Boost to disposable income from tax reductions and transfer payments, rolling three-month average



SOURCE: Difference between personal incomes minus transfers and disposable personal income growth over a 12-month period. Both data sources from the Bureau of Economic Analysis.

These increases in transfers and reductions in taxes *by themselves* added roughly 1.5% of GDP to households' disposable incomes since February. ARRA isn't responsible for all of this—some taxes fall and some transfers rise automatically as incomes fall and safety net spending rises. That said, ARRA did substantially increase taxes and transfers and also spurred recovery through transfers to state governments and direct government spending, neither of which show up directly in the personal income data.

Direct evidence on ARRA spending, taxes, GDP, and jobs

Relatively precise amounts by which ARRA reduced taxes, increased transfers (both to individuals and to states), and increased direct government spending can be obtained through the Recovery.gov Web site. **Table 1** combines that data with the economic multipliers (i.e., the amount that a given dollar of increased spending or reduced taxes spurs in additional economic output) used in standard forecasting models. The result is a rough estimate of the influence of ARRA on GDP growth for the third quarter and on job growth in each quarter since its passage.[1]

TABLE 1

ARRA spending and impact: GDP and jobs

		Amount, $ billions			Contribution to GDP, $ billion		
	Multiplier	*1Q*	*2Q*	*3Q*	*1Q*	*2Q*	*3Q*
Direct spending	1.6	$0.0	$5.2	$ 9.2	$0.0	$8.3	$14.7
Aid to states	1.4	8.6	22.6	21.0	12.0	31.6	29.4
Transfers to individuals	1.7	1.3	31.0	18.0	2.1	51.2	29.7
Business tax cuts	0.4	0.0	18.0	22.0	0.0	7.2	8.8
Individual tax cuts	1.3	0.0	8.8	10.5	0.0	11.0	13.1
Total		9.9	85.6	80.7	14.2	109.3	95.7
% of GDP		0.3%	2.4%	2.3%	0.4%	3.1%	2.7%

	Jobs, thousands		
Jobs created/saved	96	752	660
Jobs created/saved, conservative	69	541	475

SOURCE: Data from Recovery.gov, multipliers from Zandi (2009).

These estimates indicate that the recovery package contributed 2.7 percentage points to annualized GDP growth in the third quarter and that it has cumulatively added a full 1.6% to GDP since it was passed. Given that hours have fallen 25% faster than employment since the recession began, if pre-recession levels of average hours worked are targeted, this should translate into a 1.3% (1.6*(1-.25)) increase in employment, or 1.5 million jobs. If one wants to be conservative and note that the last two recoveries following recessions have been accompanied by a 30% rise in the rate of productivity growth (which, all else equal means that less employment is required for a given rate of GDP growth), the 1.6% bump to GDP would translate into something closer to 1.1 million jobs (1.3*(1-.3)) created or saved by the recovery package.

All in all, the combined evidence—the timing of ARRA in relation to subsequent economic performance; the strong influence of taxes and transfers since ARRA; and direct data from Recovery.gov on the timing and composition of ARRA expenditures and tax-cuts—suggests that the recovery package has substantially boosted economic growth and created or saved 1.1 to 1.5 million jobs since its passage.

Endnotes

1. For the table below, we use the multipliers supplied by Mark Zandi of Moodys Economy.com.