



March 2, 2009

Honorable Charles E. Grassley  
Ranking Member  
Committee on Finance  
United States Senate  
Washington, DC 20510

Dear Senator:

At your request, the Congressional Budget Office (CBO) has prepared a year-by-year estimate of the economic effects of the American Recovery and Reinvestment Act of 2009 (ARRA, Public Law 111-5), which was enacted on February 17, 2009.

### **Short-Run Effects**

The macroeconomic impacts of any economic stimulus program are very uncertain. Economic theories differ in their predictions about the effectiveness of stimulus. Furthermore, large fiscal stimulus is rarely attempted, so it is difficult to distinguish among alternative estimates of how large the macroeconomic effects would be. For those reasons, some economists remain skeptical that there will be any significant effects, while others expect very large ones.

CBO has developed a range of estimates of the effects of stimulus legislation on gross domestic product (GDP) and employment that encompasses a majority of economists' views. By CBO's estimation, in the short run ARRA will raise GDP and increase employment by adding to aggregate demand and thereby boosting the utilization of labor and capital that would otherwise be unused because the economy is in recession. Most of the budgetary effects of the legislation are estimated to occur over the next few years, and as those effects diminish, the short-run impact on the economy will fade.

Different provisions in the law differ in both the magnitude and timing of their effects on aggregate demand. To simplify analysis of the overall effects, CBO grouped the various provisions into a number of more general categories. Each category was assumed to have a range of effects on the economy that could be summarized by "multipliers"—the cumulative effect on output of a one-time increase in spending, or reduction in taxes, of one dollar. The numbers in Table 1 indicate the cumulative impact of the provisions in each category, on average, on GDP over several quarters. For example, a one-time increase in federal purchases of goods and services of \$1.00 in the second quarter of this year would raise GDP by \$1.00 to \$2.50 in total over several quarters, with most of that effect in the first two quarters and little effect beyond a year.

The multipliers are applied to outlays when they occur and to changes in taxes or transfer payments when they affect disposable income. CBO's estimates therefore account for the different rates of spending for various types of appropriations and, similarly, for the timing of the different tax cuts or transfers.

Table 1 also shows the categories to which CBO assigned the major provisions of ARRA. (In some cases, when different elements of a single provision were estimated to have different multipliers, the total cost of a provision was divided among more than one category. In those cases, the provision is shown in the table in the category to which most of its budgetary cost applied.) Provisions affecting outlays (including refundable tax provisions) are identified by the same names used in CBO's cost estimate for the conference agreement on H.R. 1 (see Table 2). Provisions affecting revenues are identified by the names used in the Joint Committee on Taxation's revenue estimate for the same legislation.<sup>1</sup>

### **Long-Run Effects**

In the long run, the economy produces close to its potential output on average, and that potential level is determined by the stock of productive capital, the supply of labor, and productivity. Short-run stimulative policies can affect long-run output by influencing those three factors, although such effects would generally be smaller than the short-run impact of those policies on demand.

In contrast to its positive near-term macroeconomic effects, the legislation will reduce output slightly in the long run, CBO estimates. The principal channel for that effect, which would also arise from other proposals to provide short-term economic stimulus by increasing government spending or reducing revenues, is that the law will result in an increase in government debt. To the extent that people hold their wealth as government bonds rather than in a form that can be used to finance private investment, the increased debt will tend to reduce the stock of productive private capital. In economic parlance, the debt will "crowd out" private investment. (Crowding out is unlikely to occur in the short run under current conditions, because most firms are lowering investment in response to reduced demand, which stimulus can offset in part.) CBO's basic assumption is that, in the long run, each dollar of additional debt crowds out about a third of a dollar's worth of private domestic capital (with the remainder of the rise in debt offset by increases in private saving and inflows of foreign capital). Because of uncertainty about the degree of crowding out, however, CBO has incorporated both more and less crowding out into its range of estimates of the long-run effects of the stimulus legislation.

The crowding-out effect will be offset somewhat by other factors. Some of the legislation's provisions, such as funding for improvements to roads and highways, might add to the economy's potential output in much the same way that private capital investment does. Other provisions, such as funding for grants to increase access to

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<sup>1</sup> See [www.house.gov/jct/x-19-09.pdf](http://www.house.gov/jct/x-19-09.pdf).

college education, could raise long-term productivity by enhancing people's skills. And some provisions will create incentives for increased private investment. According to CBO's estimates, provisions that could add to long-term output account for between one-quarter and one-third of the legislation's budgetary cost.

The effect of individual provisions could vary greatly. For example, increased spending for basic research and education might affect output only after a number of years, but once those investments began to boost GDP, they might pay off over more years than would the average investment in physical capital (in economic terms, they have a low rate of depreciation). Therefore, in any one year, their contribution to output might be less than that of the average private investment, even if their overall contribution to productivity over their lifetime was just as high. Moreover, although some carefully chosen government investments might be as productive as private investment, other government projects would probably fall well short of that benchmark, particularly in an environment in which rapid spending is a significant goal. The response of state and local governments that receive federal stimulus grants will also affect their long-run impact; those governments might apply some of that money to investments they would have carried out anyway, thus lowering the long-run economic return on those grants. In order to encompass a wide range of potential effects, CBO used two assumptions in developing its estimates: first, that all of the relevant investments together will, on average, add as much to output as would a comparable amount of private investment, and second, that they will, on average, not add to output at all.

In principle, the legislation's long-run impact on output also will depend on whether it permanently changes incentives to work or save. However, according to CBO's estimates, the legislation will not have any significant permanent effects on those incentives.

### **Net Effects on Output and Employment**

Taking all of the short- and long-run effects into account, CBO estimates that the legislation implies an increase in GDP relative to the agency's baseline forecast of between 1.4 percent and 3.8 percent by the fourth quarter of 2009, between 1.1 percent and 3.4 percent by the fourth quarter of 2010, between 0.4 percent and 1.2 percent by the fourth quarter of 2011, and declining amounts in later years (see Table 3). Beyond 2015, the legislation is estimated to reduce GDP by between zero and 0.2 percent. To illustrate the short- and long-run effects of the legislation on output, with CBO's January baseline projection of potential GDP set as a reference point, Figure 1 shows three different projections of the economy's actual output: CBO's January baseline projection of GDP (which does not include the effects of ARRA), GDP using CBO's high estimate of the effects of the legislation; and GDP using CBO's low estimate of the effects of the legislation.<sup>2</sup>

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<sup>2</sup> For details of CBO's January 2009 baseline, see Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2009-2019* (January 2009).

Honorable Charles E. Grassley

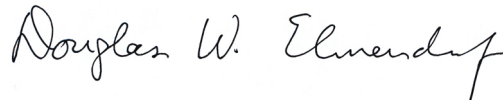
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Corresponding to the effects on output, CBO estimates that ARRA will increase employment by 0.9 million to 2.3 million by the fourth quarter of 2009, by 1.2 million to 3.6 million by the fourth quarter of 2010, by 0.6 million to 1.8 million by the fourth quarter of 2011, and by declining numbers in later years. The effect on employment is never estimated to be negative, despite lower GDP in later years, because CBO expects that the U.S. labor market will be at nearly full employment in the long run. The reduction in GDP is therefore estimated to be reflected in lower wages rather than lower employment, as workers will be slightly less productive because the capital stock is slightly smaller.

These estimates differ only slightly from those presented in CBO's letters to you, Senator Gregg, and Congressman Camp on February 11, 2009; at that time, the legislation had not yet been enacted, and CBO's estimates were based on an average of the effects of two versions of H.R. 1: as passed by the House and as passed by the Senate.

I hope this information is helpful to you. If you have any further questions, I would be glad to answer them. The staff contacts for the analysis are Ben Page and Robert Arnold, who may be reached at (202) 226-2750.

Sincerely,



Douglas W. Elmendorf  
Director

Identical letter sent to the Honorable Dave Camp.

cc: Honorable Max Baucus  
Chairman  
Senate Committee on Finance

Honorable Judd Gregg  
Ranking Member  
Senate Committee on the Budget

Honorable Kent Conrad  
Chairman  
Senate Committee on the Budget

Honorable Thad Cochran  
Ranking Member  
Senate Committee on Appropriations

Honorable Daniel K. Inouye  
Chairman  
Senate Committee on Appropriations

Table 1. The Estimated Impact Of the American Recovery and Reinvestment Act of 2009 on Output and the Budgetary Costs, 2009 to 2019

Category	Estimated Policy Multiplier		Major Provisions	11-Year Budgetary Cost of Provisions <sup>a</sup>
	High	Low		
Purchases of Goods and Services by the Federal Government	2.5	1	Division A, Title II: Other; Title IV: Energy Efficiency and Renewable Energy; Title IV: Innovative Technology Loan Guarantee Program; Title IV: Other Energy Programs; Title V: Federal Buildings Fund; Title VIII: National Institutes of Health; Title VIII: Other Department of Health and Human Services	\$88 billion
Transfers to State and Local Governments for Infrastructure	2.5	1	Division A, Title VII: Clean Water and Drinking Water State Revolving Funds; Title XII: Highway Construction; Title XII: Other Transportation; Title XII: Other Housing Assistance	\$44 billion
Transfers to State and Local Governments Not for Infrastructure	1.9	0.7	Division A, Title VIII: Education for the Disadvantaged; Title VIII: Special Education; Title XIV: State Fiscal Stabilization Fund; Division B, Title V: State Fiscal Relief Fund	\$215 billion
Transfers to Persons	2.2	0.8	Division A, Title I: Supplemental Nutrition Assistance Program; Title VIII: Student Financial Assistance; Division B, Title II: Unemployment Compensation; Title III: Health Insurance Assistance	\$100 billion
One-Time Payments to Retirees	1.2	0.2	Division B, Title II: Economic Recovery Payments, Temporary Aid to Needy Families, and Child Support <sup>b</sup>	\$18 billion
Two-Year Tax Cuts for Lower- and Middle-Income People	1.7	0.5	Division B, Title I: Refundable Tax Credits; Making Work Pay Credit <sup>c</sup> ; American Opportunity Tax Credit <sup>c</sup>	\$168 billion
One-Year Tax Cuts for Higher-Income People	0.5	0.1	Increase in Individual AMT Exemption Amount <sup>c</sup>	\$70 billion
Extension of First-Time Homebuyer Credit	1	0.2	Extension of First-Time Homebuyer Credit <sup>c</sup>	\$7 billion

(continued)

Table 1. The Estimated Impact Of the American Recovery and Reinvestment Act of 2009 on Output and the Budgetary Costs, 2009 to 2019

(Continued)

Category	Estimated Policy Multiplier		Major Provisions	11-Year Budgetary Cost of Provisions <sup>a</sup>
	High	Low		
Tax Provisions for Business Primarily Affecting Cash Flow	0.4	0	Deferral and Ratable Inclusion of Income Arising from Business Indebtedness Discharged by the Reacquisition of a Debt Instrument <sup>c</sup> ; Clarification of Regulations Related to Limitations on Certain Built-In Losses Following an Ownership Change <sup>c</sup> ; Recovery Zone Bonds <sup>c</sup> ; Qualified School Construction Bonds <sup>c</sup>	\$21 billion

Notes: The policy multiplier is the cumulative impact on GDP over several quarters of various policy options.

This table includes provisions scored by the Congressional Budget Office (CBO) or the Joint Committee on Taxation (JCT) as totaling \$5 billion or more in budgetary costs over the 2009-2019 period. Selected provisions with lower total budgetary costs were included if the cost in the 2009-2011 period was large.

The economic impact of three tax provisions with budgetary costs over \$5 billion--as titled in JCT's estimate, "Extend by Three Years the Placed-In-Service Date for Each Section 45 Qualified Facility," "One-Year Extension of Special Allowance for Certain Property Acquired During 2009," and in CBO's estimate, "Health Information Technology"--was analyzed using a different methodology, and their effects cannot easily be summarized by a multiplier.

Provisions affecting outlays (including refundable tax provisions) are identified by the same names used in CBO's cost estimate for the conference report on H.R. 1 (see Table 2). Provisions affecting revenues--all included in Title I--are identified by the names used in JCT's estimate (see [www.house.gov/jct/x-19-09.pdf](http://www.house.gov/jct/x-19-09.pdf)).

Some provisions include individual elements that have different multipliers, by CBO's estimate; in those cases, the provisions are listed with the multiplier used for the majority of the 11-year budgetary cost.

<sup>a</sup> Costs do not add up to the total budgetary cost of \$787 billion presented in CBO's cost estimate because several provisions are excluded (because CBO's analysis of those provisions cannot easily be summarized by a single multiplier) and because the costs listed are translations of the budgetary costs to categories of the national income and product accounts.

<sup>b</sup> Most of the payments in this category go to retirees.

<sup>c</sup> Estimated by JCT.

Table 2. Estimated Cost of the American Recovery and Reinvestment Act of 2009 (Public Law 111-5)

	By Fiscal Year, Millions of Dollars											Total, 2009 - 2019
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
<b>Discretionary Spending<sup>a</sup></b>												
<b>Division A</b>												
Title I - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies												
Distance Learning, Telemedicine, and Broadband Program												
Budget authority	2,500	0	0	0	0	0	0	0	0	0	0	2,500
Estimated outlays	63	350	587	575	475	325	125	0	0	0	0	2,500
Supplemental Nutrition Assistance Program												
Estimated budget authority	4,859	6,056	4,317	3,115	1,639	5	0	0	0	0	0	19,991
Estimated outlays	4,812	6,058	4,362	3,115	1,639	5	0	0	0	0	0	19,991
Other												
Budget authority	3,971	4	0	0	0	0	0	0	0	0	0	3,975
Estimated outlays	816	1,623	736	421	172	138	34	0	0	0	0	3,940
Subtotal, Title I												
Budget authority	11,330	6,060	4,317	3,115	1,639	5	0	0	0	0	0	26,466
Estimated outlays	5,691	8,031	5,685	4,111	2,286	468	159	0	0	0	0	26,431
Title II - Commerce, Justice, Science and Related Agencies												
Broadband Technology Opportunities Program												
Budget authority	4,700	0	0	0	0	0	0	0	0	0	0	4,700
Estimated outlays	84	756	860	1,250	1,210	390	150	0	0	0	0	4,700
State and Local Law Enforcement Assistance												
Budget authority	2,765	0	0	0	0	0	0	0	0	0	0	2,765
Estimated outlays	415	830	553	415	552	0	0	0	0	0	0	2,765
National Science Foundation												
Budget authority	3,002	0	0	0	0	0	0	0	0	0	0	3,002
Estimated outlays	342	1,266	794	349	162	63	12	0	0	0	0	2,988
Other												
Budget authority	5,455	0	0	0	0	0	0	0	0	0	0	5,455
Estimated outlays	1,697	2,148	654	521	298	39	0	0	0	0	0	5,357
Subtotal, Title II												
Budget authority	15,922	0	0	0	0	0	0	0	0	0	0	15,922
Estimated outlays	2,538	5,000	2,861	2,535	2,222	492	162	0	0	0	0	15,810
Title III - Department of Defense												
Budget authority	4,555	0	0	0	0	0	0	0	0	0	0	4,555
Estimated outlays	1,679	2,122	551	129	36	11	3	0	0	0	0	4,531
Title IV - Energy and Water Development												
Energy Efficiency and Renewable Energy												
Budget authority	16,800	0	0	0	0	0	0	0	0	0	0	16,800
Estimated outlays	445	2,045	3,340	3,715	3,300	2,540	1,048	267	100	0	0	16,800
Innovative Technology Loan Guarantee Program												
Budget authority	6,000	0	0	0	0	0	0	0	0	0	0	6,000
Estimated outlays	60	1,200	1,500	1,500	1,200	540	0	0	0	0	0	6,000
Other Energy Programs												
Budget authority	15,935	175	275	475	875	1,050	1,050	1,050	1,050	490	0	22,425
Estimated outlays	1,303	3,943	5,043	4,275	2,175	1,910	1,186	1,050	1,050	470	-30	22,375

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(Continued)

	By Fiscal Year, Millions of Dollars											Total, 2009 - 2019
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
<b>Discretionary Spending<sup>a</sup> (continued)</b>												
<b>Division A (continued)</b>												
Corps of Engineers												
Budget authority	4,600	0	0	0	0	0	0	0	0	0	0	4,600
Estimated outlays	1,171	1,701	980	378	270	100	0	0	0	0	0	4,600
Other, Title IV												
Budget authority	1,000	0	0	0	0	0	0	0	0	0	0	1,000
Estimated outlays	180	500	200	120	0	0	0	0	0	0	0	1,000
Subtotal, Title IV												
Budget authority	44,335	175	275	475	875	1,050	1,050	1,050	1,050	490	0	50,825
Estimated outlays	3,159	9,389	11,063	9,988	6,945	5,090	2,234	1,317	1,150	470	-30	50,775
Title V - Financial Services and and General Government												
Federal Buildings Fund												
Budget authority	5,550	0	0	0	0	0	0	0	0	0	0	5,550
Estimated outlays	400	900	1,000	1,100	1,000	500	300	150	50	0	0	5,400
Other												
Budget authority	1,308	0	0	0	0	0	0	0	0	0	0	1,308
Estimated outlays	220	662	339	67	19	0	0	0	0	0	0	1,307
Subtotal, Title V												
Budget authority	6,858	0	0	0	0	0	0	0	0	0	0	6,858
Estimated outlays	620	1,562	1,339	1,167	1,019	500	300	150	50	0	0	6,707
Title VI - Homeland Security												
Budget authority	2,755	0	0	0	0	0	0	0	0	0	0	2,755
Estimated outlays	506	591	857	457	230	93	10	0	0	0	0	2,744
Title VII - Interior, Environment, and Related Agencies												
Clean Water and Drinking Water State Revolving Funds												
Budget authority	6,000	0	0	0	0	0	0	0	0	0	0	6,000
Estimated outlays	180	1,380	1,800	1,240	600	320	120	68	36	42	0	5,786
Other												
Budget authority	4,950	0	0	0	0	0	0	0	0	0	0	4,950
Estimated outlays	988	2,118	897	531	183	9	9	9	9	6	0	4,759
Subtotal, Title VII												
Budget authority	10,950	0	0	0	0	0	0	0	0	0	0	10,950
Estimated outlays	1,168	3,498	2,697	1,771	783	329	129	77	45	48	0	10,545
Title VIII - Departments of Labor, Health and Human Services, and Education, and Related Agencies												
National Institutes of Health												
Budget authority	10,000	0	0	0	0	0	0	0	0	0	0	10,000
Estimated outlays	855	3,286	3,703	1,505	249	118	27	0	0	0	0	9,743
National Coordinator for Health Information Technology												
Budget authority	2,000	0	0	0	0	0	0	0	0	0	0	2,000
Estimated outlays	300	1,280	360	40	0	0	0	0	0	0	0	1,980
Other Department of Health and Human Services												
Budget authority	9,897	0	0	0	0	0	0	0	0	0	0	9,897
Estimated outlays	2,173	3,009	2,358	1,612	593	65	0	0	0	0	0	9,810

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Table 2. Estimated Cost of the American Recovery and Reinvestment Act of 2009 (Public Law 111-5)

(Continued)

	By Fiscal Year, Millions of Dollars											Total, 2009 - 2019
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
<b>Discretionary Spending<sup>a</sup> (Continued)</b>												
<b>Division A (continued)</b>												
Employment and Training Administration												
Budget authority	4,470	0	0	0	0	0	0	0	0	0	0	4,470
Estimated outlays	613	2,226	1,224	242	0	0	0	0	0	0	0	4,305
Department of Education												
Education for the Disadvantaged												
Budget authority	13,000	0	0	0	0	0	0	0	0	0	0	13,000
Estimated outlays	494	6,210	5,776	520	0	0	0	0	0	0	0	13,000
Special Education												
Budget authority	12,200	0	0	0	0	0	0	0	0	0	0	12,200
Estimated outlays	732	5,734	5,124	610	0	0	0	0	0	0	0	12,200
Student Financial Assistance												
Budget authority	16,483	831	0	0	0	0	0	0	0	0	0	17,314
Estimated outlays	917	14,572	1,056	15	0	0	0	0	0	0	0	16,560
Other Education												
Budget authority	2,124	0	0	0	0	0	0	0	0	0	0	2,124
Estimated outlays	207	1,078	624	203	12	0	0	0	0	0	0	2,124
Other, Title VIII												
Budget authority	1,559	0	0	0	0	0	0	0	0	0	0	1,559
Estimated outlays	540	324	283	237	155	4	4	2	0	0	0	1,549
Subtotal, Title VIII												
Budget authority	71,733	831	0	0	0	0	0	0	0	0	0	72,564
Estimated outlays	6,831	37,719	20,508	4,984	1,009	187	31	2	0	0	0	71,271
Title IX - Legislative Branch												
Budget authority	25	0	0	0	0	0	0	0	0	0	0	25
Estimated outlays	8	15	2	0	0	0	0	0	0	0	0	25
Title X - Military Construction and Veterans Affairs and Related Agencies												
Budget authority	4,281	0	0	0	0	0	0	0	0	0	0	4,281
Estimated outlays	448	1,564	1,229	638	241	93	33	0	0	0	0	4,246
Title XI - State, Foreign Operations and Related Programs												
Budget authority	602	0	0	0	0	0	0	0	0	0	0	602
Estimated outlays	96	180	162	114	50	0	0	0	0	0	0	602
Title XII - Transportation and Housing and Urban Development												
Highway Construction												
Budget authority	27,500	0	0	0	0	0	0	0	0	0	0	27,500
Estimated outlays	2,750	6,875	5,500	4,125	3,025	2,750	1,925	550	0	0	0	27,500
Other Transportation												
Budget authority	20,620	0	0	0	0	0	0	0	0	0	0	20,620
Estimated outlays	2,232	2,511	3,285	2,910	3,027	2,672	1,987	1,051	400	320	160	20,555
Public Housing Capital Fund												
Budget authority	4,000	0	0	0	0	0	0	0	0	0	0	4,000
Estimated outlays	80	1,200	1,200	800	640	40	40	0	0	0	0	4,000
Other Housing Assistance												
Budget authority	9,662	13	0	0	0	0	0	0	0	0	0	9,675
Estimated outlays	446	2,068	3,316	1,973	1,109	62	22	0	0	0	0	8,996
Subtotal, Title XII												
Budget authority	61,782	13	0	0	0	0	0	0	0	0	0	61,795
Estimated outlays	5,508	12,654	13,301	9,808	7,801	5,524	3,974	1,601	400	320	160	61,051

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Table 2. Estimated Cost of the American Recovery and Reinvestment Act of 2009 (Public Law 111-5)

(Continued)

	By Fiscal Year, Millions of Dollars											Total, 2009 - 2019
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
<b>Discretionary Spending<sup>a</sup> (continued)</b>												
<b>Division A (continued)</b>												
Title XIV - State Fiscal Stabilization Fund												
Budget authority	53,600	0	0	0	0	0	0	0	0	0	0	53,600
Estimated outlays	6,540	28,377	16,070	2,363	250	0	0	0	0	0	0	53,600
Subtotal, Division A												
Budget authority	288,728	7,079	4,592	3,590	2,514	1,055	1,050	1,050	1,050	490	0	311,198
Estimated outlays	34,792	110,702	76,325	38,065	22,872	12,787	7,035	3,147	1,645	838	130	308,338
<b>Division A - Revenues</b>												
Title XII - Transportation and Housing and Urban Development HOME, Low-income Housing Tax Credit Program												
	-1	-3	-8	-12	-14	-16	-17	-18	-18	-18	-18	-143
Net Increase or Decrease (-) in the Deficit, Division A												
	34,793	110,705	76,333	38,077	22,886	12,803	7,052	3,165	1,663	856	148	308,481
<b>Direct Spending</b>												
<b>Division B</b>												
Title I - Tax Provisions												
Refundable Tax Credits												
Estimated budget authority	1,528	32,027	30,105	726	706	686	666	646	634	622	610	68,955
Estimated outlays	1,528	32,027	30,105	726	706	686	666	646	634	622	610	68,955
Other Provisions												
Estimated budget authority	3,580	844	434	21	10	0	0	0	0	0	0	4,889
Estimated outlays	3,250	696	553	244	62	3	0	0	0	0	0	4,808
Subtotal, Title I												
Estimated budget authority	5,108	32,871	30,539	747	716	686	666	646	634	622	610	73,844
Estimated outlays	4,778	32,723	30,658	970	768	689	666	646	634	622	610	73,763
Title II - Assistance for Unemployed Workers and Struggling Families												
Unemployment Compensation												
Estimated budget authority	16,981	20,460	470	295	140	135	140	145	150	155	160	39,231
Estimated outlays	16,976	20,465	470	295	140	135	140	145	150	155	160	39,231
Economic Recovery Payments, TANF, and Child Support												
Estimated budget authority	19,530	962	-30	-12	-3	-1	0	0	0	0	0	20,447
Estimated outlays	14,942	2,125	713	187	49	14	4	1	0	0	0	18,033
Subtotal, Title II												
Estimated budget authority	36,511	21,422	440	283	137	134	140	145	150	155	160	59,677
Estimated outlays	31,918	22,590	1,183	482	189	149	144	146	150	155	160	57,264
Title III - Health Insurance Assistance												
Estimated budget authority	14,302	9,206	1,493	67	0	0	0	0	0	0	0	25,069
Estimated outlays	14,302	9,206	1,493	67	0	0	0	0	0	0	0	25,069
Title IV - Health Information Technology												
Estimated budget authority	438	178	4,741	6,469	6,463	14,231	3,848	-5,546	-4,990	-2,780	-2,233	20,819
Estimated outlays	417	178	4,741	6,469	6,463	14,231	3,848	-5,535	-4,980	-2,780	-2,233	20,819
Title V - State Fiscal Relief												
Estimated budget authority	33,955	43,920	11,802	67	-8	33	44	56	57	59	59	90,044
Estimated outlays	33,881	43,923	11,847	88	-6	35	44	56	57	59	59	90,042
Subtotal, Direct Spending												
Estimated budget authority	90,314	107,597	49,015	7,633	7,308	15,084	4,698	-4,699	-4,149	-1,944	-1,404	269,454
Estimated outlays	85,295	108,619	49,922	8,076	7,414	15,104	4,702	-4,687	-4,139	-1,944	-1,404	266,958

(continued)

Table 2. Estimated Cost of the American Recovery and Reinvestment Act of 2009 (Public Law 111-5)

(Continued)

	By Fiscal Year, Millions of Dollars											Total, 2009 - 2019
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
<b>Division B - Revenues</b>												
<b>Division B (continued)</b>												
Title I - Tax Provisions	-64,792	-179,893	-8,194	9,949	2,506	5,228	6,670	5,313	4,562	4,495	-408	-214,576
Title II - Assistance for Unemployed Workers and Struggling Families	-44	-261	-186	-263	-225	-139	-81	34	65	105	115	-879
Title III - Health Insurance Assistance	0	52	86	93	75	46	29	10	1	0	0	392
Title IV - Health Information Technology	0	0	120	250	360	410	435	435	425	415	410	3,260
Subtotal, Revenues	-64,836	-180,102	-8,174	10,029	2,716	5,545	7,053	5,792	5,053	5,015	117	-211,803
Net Increase or Decrease (-) in the Deficit, Division B	150,131	288,722	58,096	-1,953	4,698	9,558	-2,351	-10,480	-9,192	-6,959	-1,521	478,761
<b>Net Impact on the Deficit</b>												
<b>Net Increase or Decrease (-) in the Deficit</b>	<b>184,924</b>	<b>399,427</b>	<b>134,429</b>	<b>36,124</b>	<b>27,584</b>	<b>22,361</b>	<b>4,701</b>	<b>-7,315</b>	<b>-7,529</b>	<b>-6,103</b>	<b>-1,373</b>	<b>787,242</b>
<b>Memorandum</b>												
<b>On-Budget</b>												
Estimated budget authority	379,042	114,676	53,618	11,248	9,857	16,176	5,787	-3,609	-3,086	-1,440	-1,391	580,879
Estimated outlays	120,087	219,321	126,258	46,166	30,321	27,928	11,776	-1,500	-2,481	-1,092	-1,261	575,523
Revenues	-64,821	-180,075	-8,218	9,927	2,577	5,389	6,886	5,624	4,890	4,857	-41	-213,017
Net impact on the deficit	184,908	399,396	134,476	36,239	27,744	22,539	4,890	-7,124	-7,371	-5,949	-1,220	788,540
<b>Off-Budget</b>												
Estimated budget authority	0	0	-11	-25	-35	-37	-39	-40	-13	-14	-13	-227
Estimated outlays	0	0	-11	-25	-35	-37	-39	-40	-13	-14	-13	-227
Revenues	-16	-30	36	90	125	140	150	150	145	140	140	1,071
Net impact on the deficit	16	30	-47	-115	-160	-177	-189	-190	-158	-154	-153	-1,298
<b>Unified Budget</b>												
Estimated budget authority	379,042	114,676	53,607	11,223	9,822	16,139	5,748	-3,649	-3,099	-1,454	-1,404	580,652
Estimated outlays	120,087	219,321	126,247	46,141	30,286	27,891	11,737	-1,540	-2,494	-1,106	-1,274	575,296
Revenues	-64,837	-180,105	-8,182	10,017	2,702	5,529	7,036	5,774	5,035	4,997	99	-211,946
Net impact on the deficit	184,924	399,427	134,429	36,124	27,584	22,361	4,701	-7,315	-7,529	-6,103	-1,373	787,242

Sources: Congressional Budget Office and Joint Committee on Taxation.

Notes: TANF = Temporary Assistance for Needy Families.

Estimates in this table reflect an assumed enactment date in mid-February 2009. Outlays projected for 2009 would occur over a 7-1/2 month period.

Positive revenue numbers reflect decreases in the deficit; negative revenue numbers reflect increases in the deficit.

Positive numbers for "net impact on the deficit" reflect an increase in the deficit; negative numbers reflect a decrease in the deficit.

Components may not sum to totals because of rounding.

a. Includes estimates for changes to mandatory programs contained in Division A.

Table 3. Estimated Macroeconomic Impacts of the American Recovery and Reinvestment Act of 2009, Fourth Quarters of Calendar Years 2009 Through 2019

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real GDP (Percentage change from baseline)											
Low estimate of effect	1.4	1.1	0.4	0.1	0.0	0.0	-0.1	-0.2	-0.2	-0.2	-0.2
High estimate of effect	3.8	3.4	1.2	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0
GDP Gap <sup>a</sup> (Percent)											
Baseline	-7.4	-6.3	-4.1	-2.2	-0.7	-0.1	0.0	0.0	0.0	0.0	0.0
Low estimate of effect	-6.1	-5.3	-3.7	-2.0	-0.6	-0.1	0.0	0.0	0.0	0.0	0.0
High estimate of effect	-3.9	-3.2	-2.9	-1.7	-0.5	0.0	0.1	0.0	0.0	0.0	0.0
Unemployment Rate (Percent)											
Baseline	9.0	8.7	7.5	6.4	5.5	5.0	4.8	4.8	4.8	4.8	4.8
Low estimate of effect	8.5	8.1	7.2	6.3	5.4	5.0	4.8	4.8	4.8	4.8	4.8
High estimate of effect	7.8	6.8	6.6	6.0	5.3	4.9	4.8	4.8	4.8	4.8	4.8
Employment (Millions of jobs)											
Baseline	141.6	143.3	146.2	149.3	152.1	153.9	154.9	155.7	156.4	157.0	157.7
Low estimate of effect	142.4	144.5	146.8	149.6	152.2	153.9	155.0	155.7	156.4	157.0	157.7
High estimate of effect	143.9	146.9	148.0	150.0	152.4	154.1	155.0	155.7	156.4	157.0	157.7

Source: Congressional Budget Office.

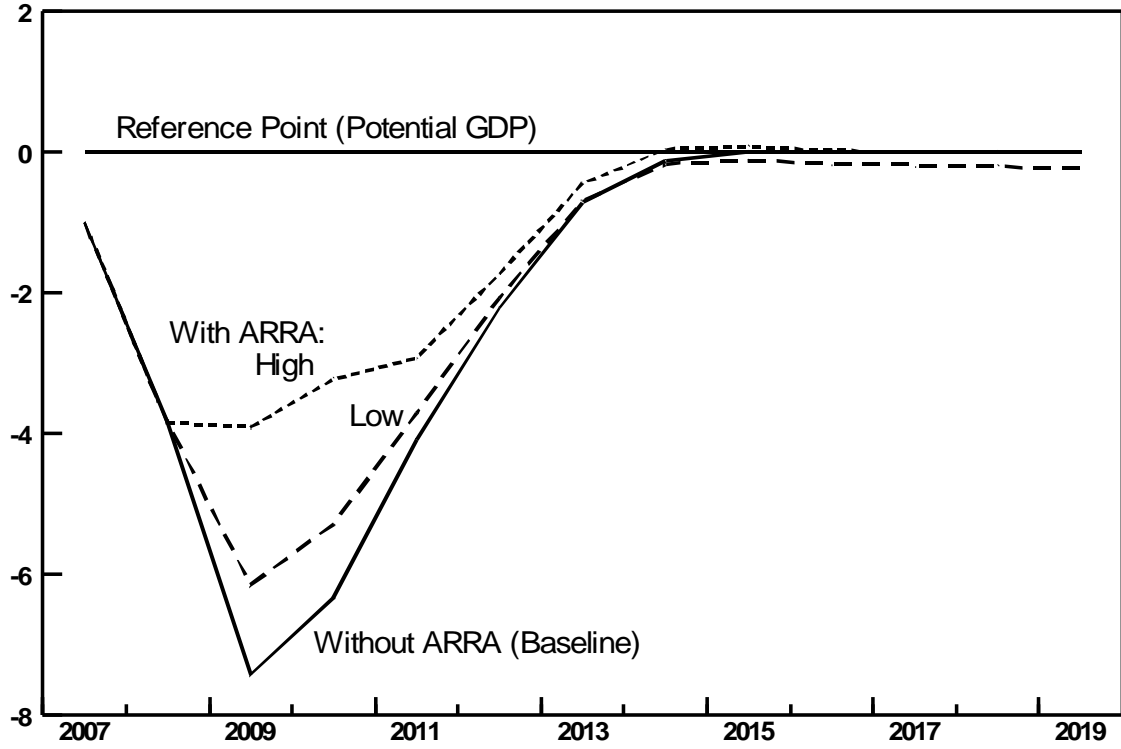
a. Real GDP is gross domestic product, excluding the effects of inflation. The GDP gap is the percentage difference between gross domestic product and CBO's estimate of potential GDP. Potential GDP is the estimated level of output that corresponds to a high level of resource--labor and capital--use. A negative gap indicates a high unemployment rate and low utilization rates for plant and equipment.

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Figure 1. Difference Between Potential GDP in CBO's Baseline and Actual GDP Without and With the Impact of the American Recovery and Reinvestment Act of 2009

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(Percentage difference in the fourth quarter of each year)



Source: Congressional Budget Office.

Notes: CBO's January 2009 baseline projection of potential gross domestic product (GDP) is set as a reference point. The projection of actual GDP without the effects of the American Recovery and Reinvestment Act of 2009 (ARRA) is CBO's January 2009 estimate, as presented in *The Budget and Economic Outlook: Fiscal Years 2009-2019*. The projections of actual GDP with the effects of ARRA incorporated (the high and low estimates) reflect a range of assumptions.

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