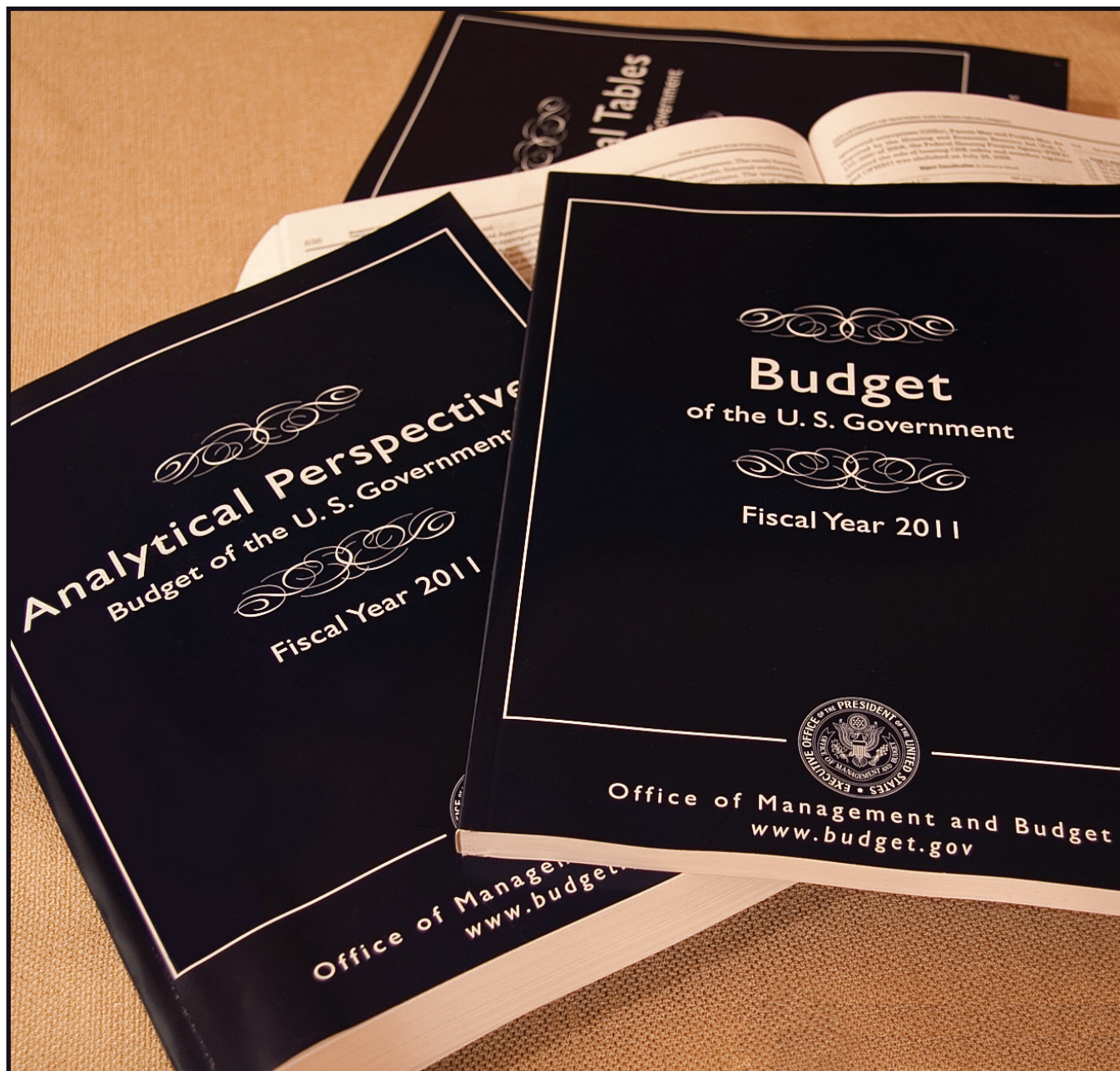


# An Analysis of the President's Budgetary Proposals for Fiscal Year 2011



MARCH 2010





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## Notes

Unless otherwise indicated, years referred to in Chapter 1 are federal fiscal years (which run from October 1 to September 30), and years referred to in Chapter 2 are calendar years.

Numbers in the text and tables may not add up to totals because of rounding.

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The baseline estimates contained in this document do not include the effects of the Patient Protection and Affordable Care Act, which was enacted on March 23, 2010. The President's budget included placeholders for the budgetary effects of health care legislation; CBO used those placeholders in its analysis of the President's budget.



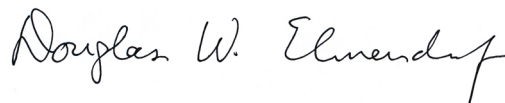
# Preface

**T**his Congressional Budget Office (CBO) analysis of the President's budgetary proposals for fiscal year 2011 was prepared at the request of the Senate Committee on Appropriations. The baseline spending projections and the estimates of the budgetary impact of the President's spending proposals were prepared by the staff of CBO's Budget Analysis Division under the supervision of Peter Fontaine, Theresa Gullo, Holly Harvey, Janet Airis, Tom Bradley, Kim Cawley, Jeffrey Holland, Sarah Jennings, Kate Massey, and Sam Papenfuss. The baseline revenue estimates were prepared by the staff of CBO's Tax Analysis Division under the supervision of Frank Sammartino, David Weiner, Mark Booth, and Janet Holtzblatt. Pamela Greene coordinated the analysis of the President's revenue proposals, and the Joint Committee on Taxation prepared most of the estimates of those proposals. (A detailed list of contributors to the spending and revenue projections appears in Appendix C.) The report expands on CBO's preliminary analysis, which was released on March 5, 2010.

Benjamin Page of the Macroeconomic Analysis Division coordinated the economic analysis under the supervision of Robert Dennis and William Randolph. Robert Arnold, Paul Burnham, Naomi Griffin, Ed Harris, Mark Lasky, Valentina Michelangeli, Larry Ozanne, Frank Russek, Marika Santoro, Kurt Seibert, and David Weiner carried out the modeling.

Barry Blom wrote Chapter 1, with assistance from Christina Hawley Anthony, Amber Marcellino, and Santiago Vallinas, and Benjamin Page wrote Chapter 2 and Appendixes A and B.

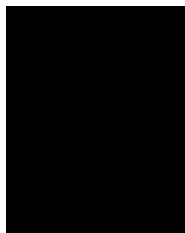
Kate Kelly and John Skeen edited the report, and Loretta Lettner proofread it. Maureen Costantino took the cover photograph, and she and Jeanine Rees prepared the report for publication. Monte Ruffin printed the initial copies, Linda Schimmel coordinated the print distribution, and Simone Thomas prepared the electronic version for CBO's Web site ([www.cbo.gov](http://www.cbo.gov)).



Douglas W. Elmendorf  
Director

March 2010





# Contents

	<b>Summary</b>	<i>vii</i>
<b>1</b>	<b>CBO's Estimate of the President's Budget</b>	<i>1</i>
	Results of CBO's Analysis	<i>1</i>
	Differences Between CBO's and the Administration's Budget Estimates	<i>13</i>
	CBO's Baseline Budget Projections	<i>16</i>
<b>2</b>	<b>The Economy Under the President's Budget and Under CBO's Baseline Policy Assumptions</b>	<i>23</i>
	How the Government's Fiscal Policies Can Affect the Economy	<i>23</i>
	How the President's Budgetary Proposals Would Affect the Economy	<i>25</i>
	Economic Models and Results	<i>30</i>
<b>A</b>	<b>The Potential Economic Effects of Selected Proposals in the President's 2011 Budget</b>	<i>35</i>
<b>B</b>	<b>The Models Used to Analyze the Supply-Side Macroeconomic Effects of the President's Budgetary Proposals</b>	<i>39</i>
<b>C</b>	<b>Contributors to the Revenue and Spending Projections</b>	<i>43</i>

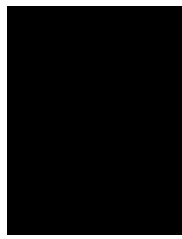
**Tables**

1-1.	Comparison of Projected Revenues, Outlays, and Deficits in CBO's March 2010 Baseline and CBO's Estimate of the President's Budget	2
1-2.	CBO's Estimate of the President's Budget	5
1-3.	CBO's Estimate of the Effect of the President's Budget on Baseline Deficits	8
1-4.	Proposed Changes in Discretionary Budget Authority in the President's Budget, 2009 to 2011	11
1-5.	Discretionary Budget Authority Requested by the President for 2011 Compared with Funding for 2010, by Budget Function	12
1-6.	Sources of Differences Between CBO's and the Administration's Estimates of the President's Budget	14
1-7.	Changes in CBO's Baseline Projections of the Deficit or Surplus Since January 2010	18
1-8.	CBO's Baseline Budget Projections	20
2-1.	CBO's Estimates of How the President's Budget Would Affect Inflation-Adjusted Gross National Product	24
2-2.	CBO's Estimates of Effective Federal Marginal Tax Rates on Capital Income	27
2-3.	CBO's Estimates of Effective Federal Marginal Tax Rates on Labor Income	29
2-4.	The Budgetary Implications of the Macroeconomic Effects	31

**Figures**

1-1.	Total Deficits or Surpluses, 1970 to 2020	3
1-2.	Debt Held by the Public Under CBO's March 2010 Baseline and CBO's Estimate of the President's Budget	4





# Summary

**T**his report presents a more detailed analysis of the proposals contained in the President's budget request for fiscal year 2011 than the preliminary analysis that the Congressional Budget Office (CBO) released on March 5, 2010, and it incorporates the impact of legislation that has recently been enacted.<sup>1</sup> In addition, CBO has completed an analysis of the potential effects on the economy of the President's budgetary proposals and the impact of those economic effects on the federal budget.

CBO's analysis of the President's proposals, before consideration of the budget's potential impact on the economy, indicates the following:

- If the President's proposals were enacted, the federal government would record deficits of \$1.5 trillion in 2010 and \$1.3 trillion in 2011. Those deficits would amount to 10.3 percent and 8.9 percent of gross domestic product (GDP), respectively. By comparison, the deficit in 2009 totaled 9.9 percent of GDP.
- Measured relative to the size of the economy, the deficit under the President's proposals would fall to about 4 percent of GDP by 2014 but would rise steadily thereafter. Compared with CBO's current-law baseline projections, deficits under the proposals would be about 2 percentage points of GDP higher in fiscal years 2011 and 2012, 1.3 percentage points greater in 2013, and above baseline levels by growing amounts

thereafter. By 2020, the deficit would reach 5.6 percent of GDP, compared with 3.0 percent under CBO's baseline projections.

- Under the President's budget, debt held by the public would grow from \$7.5 trillion (53 percent of GDP) at the end of 2009 to \$20.3 trillion (90 percent of GDP) at the end of 2020, about \$5 trillion more than under the assumptions in the baseline. Net interest would more than quadruple between 2010 and 2020 in nominal dollars (without an adjustment for inflation); it would swell from 1.4 percent of GDP in 2010 to 4.1 percent in 2020.
- Revenues under the President's proposals would be \$1.4 trillion (or 4 percent) below CBO's baseline projections from 2011 to 2020, largely because of the President's proposals to index the thresholds for the alternative minimum tax (AMT) for inflation starting at their 2009 levels and to extend many of the tax reductions enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) and the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA). CBO's baseline projections reflect current law, under which the parameters of the AMT revert to earlier levels and the reductions under EGTRRA and JGTRRA expire as scheduled at the end of 2010. Other proposals in the President's budget—including those associated with significant changes in the nation's health insurance system—would, on net, increase revenues.
- Mandatory outlays under the President's proposals would exceed CBO's baseline projections by \$1.9 trillion (or 8 percent) over the 2011–2020 period; about one-third of that amount would stem from net additional spending related to proposed changes to the health insurance system and health care programs. Much of the rest of the increase in mandatory

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1. See Congressional Budget Office, [letter to the Honorable Daniel K. Inouye providing a preliminary analysis of the President's budget request for 2011](#) (March 5, 2010). CBO's estimates for the current analysis incorporate the effects of legislation enacted through March 12, 2010. The estimates do not include the effects of the Hiring Incentives to Restore Employment Act (HIRE), which the President signed into law on March 18, 2010. This report also does not include the effects of the Patient Protection and Affordable Care Act, which the President signed on March 23, 2010.

spending would result from increased spending for refundable tax credits and for the Pell Grant program for postsecondary students.

- Discretionary spending under the President's budget would be about \$0.3 trillion (or 2 percent) lower than the cumulative amount projected for the 2011–2020 period in CBO's baseline, which assumes that appropriations continue each year at their 2010 amounts with adjustments for inflation. The largest factor in that reduction relates to funding for the wars in Iraq and Afghanistan: The President's request includes a placeholder of \$50 billion a year after 2011, whereas CBO's baseline assumes that funding will continue, with adjustments for inflation, at the level provided so far this year, which is \$130 billion. Excluding funding for war-related activities and the Pell Grant program (which the President proposes to legislatively change so that all such grants are provided through mandatory funding), discretionary outlays over the 2011–2020 period would be \$0.4 trillion (or 4 percent) greater than the amounts projected in CBO's baseline.
- For 2010, CBO's estimate of the deficit under the President's budget is \$56 billion less than the Administration's figure, primarily because of differences in baseline estimates of spending. In contrast, largely because it projects lower baseline revenues in future years, CBO estimates deficits that are \$75 billion higher for 2011 and \$1.2 trillion greater over the 2011–2020 period than the Administration anticipates under the President's budget.

The President's budgetary proposals would have effects on the economy, which would in turn influence the budget through changes in such factors as taxable income (which affects the amount of revenues collected), employment (which determines outlays for programs like unemployment compensation), and interest rates (which affect the government's borrowing costs). CBO's analysis of those interactions between the budget and the economy indicates the following:

- For 2011 to 2015, CBO estimates that the President's proposals would raise real (inflation-adjusted) output

relative to that under the assumptions in CBO's baseline by between 0.9 percent and 1.2 percent, on average. Those estimates incorporate both supply-side effects (influences on the economy's potential output) and demand-side effects (temporary movements of actual output relative to potential output).

- For 2016 to 2020, CBO estimates, the President's proposals would lower real output relative to CBO's baseline assumptions by between 0.2 percent and 1.4 percent, on average. Those estimates incorporate only supply-side effects because the magnitude of demand-side effects depends on the state of the economy, which is especially difficult to predict over longer horizons. In addition, the Federal Reserve might offset the demand-side effects of policies that are foreseen well in advance in order to maintain economic stability.
- CBO estimates that the economic feedback from the President's proposals would reduce their cumulative cost over the period from 2011 through 2015—estimated to be about \$1.4 trillion, excluding any aggregate economic effects—by between 2 percent and 14 percent. From 2016 to 2020, the effects of the proposals on the economy would increase their cumulative cost—estimated to be about \$2.3 trillion, excluding any aggregate economic effects—by as much as 6 percent or reduce it by as much as 2 percent.

CBO has not modified its economic forecast since January, but the agency updated its baseline budget projections early in March to take into account some legislation enacted since the completion of the previous baseline in January 2010 as well as new information obtained about various aspects of the budget since then.<sup>2</sup> The resulting changes, relative to CBO's January projections, are modest, adding \$20 billion to the projected deficit in 2010 and reducing projected deficits over the 2011–2020 period by a total of \$57 billion.

2. See Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2010 to 2020* (January 2010).

# CBO's Estimate of the President's Budget

**E**arlier this month, the Congressional Budget Office (CBO) released a preliminary analysis of the President's budget request for fiscal year 2011.<sup>1</sup> This report provides more detail about the President's proposals and about CBO's updated baseline budget projections through 2020, which assume the continuation of current tax and spending policies. It also incorporates the effects of two pieces of legislation—the Temporary Extension Act of 2010 (Public Law 111-144) and the Capitol Police Administrative Technical Corrections Act of 2009 (P.L. 111-145)—that have been enacted since CBO completed its preliminary analysis, along with other minor revisions to its estimates. CBO's estimates do not include the effects of the Patient Protection and Affordable Care Act, which was enacted on March 23, 2010.<sup>2</sup>

## Results of CBO's Analysis

The agency's analysis of the President's proposals is based on its own economic assumptions and estimating techniques (rather than the Administration's) and incorporates revenue estimates from the staff of the Joint Committee on Taxation (JCT) for tax provisions. According to CBO's projections, if all of the President's budget proposals were enacted, those policies would add \$132 billion to the deficit in this fiscal year, reducing revenues by nearly \$60 billion and boosting outlays by more than \$70 billion. The deficit in the current fiscal year, which ends

on September 30, would total \$1.5 trillion, or 10.3 percent of gross domestic product (GDP). As a share of the economy, that deficit would be slightly greater than the 2009 shortfall, which totaled 9.9 percent of GDP.

Over the 2011–2020 period, deficits would total \$9.8 trillion, or 5.2 percent of GDP during that period (see Table 1-1). In 2011, CBO estimates, the deficit under the President's budget would decline to 8.9 percent of GDP and would total \$1.3 trillion—\$346 billion more than the deficit that CBO projects in its March baseline (which is based on the assumption that current laws and policies remain in place).

Deficits in succeeding years under the President's proposals would be smaller but would continue to add significantly to federal debt. The deficit would fall to about 4 percent of GDP by 2014 but would rise steadily thereafter, reaching 5.6 percent of GDP in 2020 (see Figure 1-1). The cumulative deficit over the 2011–2020 period would be \$3.8 trillion more than the cumulative deficit projected under CBO's baseline. Of that difference, \$3.0 trillion stems from proposed changes in policy, and the other \$0.8 trillion results from additional interest on the public debt.

Under the President's budget, debt held by the public would grow from \$7.5 trillion (53 percent of GDP) at the end of 2009 to \$20.3 trillion (90 percent of GDP) at the end of 2020—\$5 trillion above what CBO projects for 2020 in its baseline (see Figure 1-2). In addition to the \$3.8 trillion in added deficits from the President's policies, the government's borrowing needs would rise by another \$1.3 trillion in order to finance additional direct lending to students and other credit programs. (The subsidy costs of that lending are included in the projected deficits, but they represent only a small fraction of the cash disbursements for loans.)

1. Congressional Budget Office, letter to the Honorable Daniel K. Inouye providing a preliminary analysis of the President's budget request for 2011 (March 5, 2010).
2. CBO's estimates also do not include the impact of the Hiring Incentives to Restore Employment Act (HIRE), which the President signed into law on March 18, 2010. According to CBO's calculations, HIRE will add \$5 billion to the baseline deficit in 2010 and \$6 billion in 2011. The effects on projected deficits under the President's budget would differ from those effects on the baseline, however, because the provisions of HIRE overlap somewhat with the President's tax proposals.

**Table 1-1.****Comparison of Projected Revenues, Outlays, and Deficits in CBO's March 2010 Baseline and CBO's Estimate of the President's Budget**

(Billions of dollars)

	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011- 2015	Total, 2011- 2020
<b>CBO's Baseline</b>														
Revenues	2,105	2,176	2,673	2,967	3,221	3,469	3,629	3,818	4,000	4,174	4,355	4,567	15,958	36,872
Outlays	3,518	3,545	3,668	3,609	3,746	3,931	4,101	4,331	4,521	4,708	4,996	5,251	19,055	42,862
<b>Total Deficit</b>	<b>-1,413</b>	<b>-1,368</b>	<b>-996</b>	<b>-642</b>	<b>-525</b>	<b>-463</b>	<b>-472</b>	<b>-513</b>	<b>-521</b>	<b>-534</b>	<b>-641</b>	<b>-684</b>	<b>-3,097</b>	<b>-5,990</b>
<b>CBO's Estimate of the President's Budget</b>														
Revenues	2,105	2,118	2,460	2,808	3,095	3,341	3,504	3,693	3,869	4,036	4,211	4,416	15,208	35,434
Outlays	3,518	3,618	3,802	3,722	3,842	4,065	4,297	4,587	4,808	5,032	5,364	5,670	19,727	45,189
<b>Total Deficit</b>	<b>-1,413</b>	<b>-1,500</b>	<b>-1,342</b>	<b>-914</b>	<b>-747</b>	<b>-724</b>	<b>-793</b>	<b>-894</b>	<b>-940</b>	<b>-996</b>	<b>-1,152</b>	<b>-1,254</b>	<b>-4,519</b>	<b>-9,755</b>
<b>Difference Between CBO's Estimate of the President's Budget and CBO's Baseline</b>														
Revenues	n.a.	-58	-213	-159	-126	-127	-125	-125	-131	-138	-144	-151	-750	-1,439
Outlays	n.a.	73	133	114	95	134	196	256	288	324	367	419	672	2,327
<b>Total Deficit<sup>a</sup></b>	<b>n.a.</b>	<b>-132</b>	<b>-346</b>	<b>-273</b>	<b>-221</b>	<b>-261</b>	<b>-321</b>	<b>-381</b>	<b>-419</b>	<b>-462</b>	<b>-511</b>	<b>-570</b>	<b>-1,422</b>	<b>-3,765</b>
<b>Memorandum:</b>														
Total Deficit as a Percentage of GDP														
CBO's baseline	-9.9	-9.4	-6.6	-4.1	-3.1	-2.6	-2.6	-2.7	-2.6	-2.6	-3.0	-3.0	-3.7	-3.2
CBO's estimate of the President's budget	-9.9	-10.3	-8.9	-5.8	-4.5	-4.1	-4.3	-4.7	-4.7	-4.8	-5.3	-5.6	-5.4	-5.2
Debt Held by the Public as a Percentage of GDP														
CBO's baseline	53.0	61.8	65.8	67.1	66.6	65.9	65.7	65.8	66.0	66.3	66.9	67.5	n.a.	n.a.
CBO's estimate of the President's budget	53.0	63.2	70.1	73.6	74.8	75.7	77.4	79.6	81.8	84.3	87.1	90.0	n.a.	n.a.

Source: Congressional Budget Office.

Note: GDP = gross domestic product; n.a. = not applicable.

a. Negative numbers indicate an increase relative to the deficit in CBO's baseline.

Net interest payments would nearly quadruple over the projection period (in nominal dollars, without an adjustment for inflation), rising from \$244 billion in 2011 to \$916 billion in 2020, about 25 percent more than under the assumptions for the baseline. Such payments would total 4.1 percent of GDP in 2020 under the President's budget, nearly 1 percentage point higher than in the baseline.

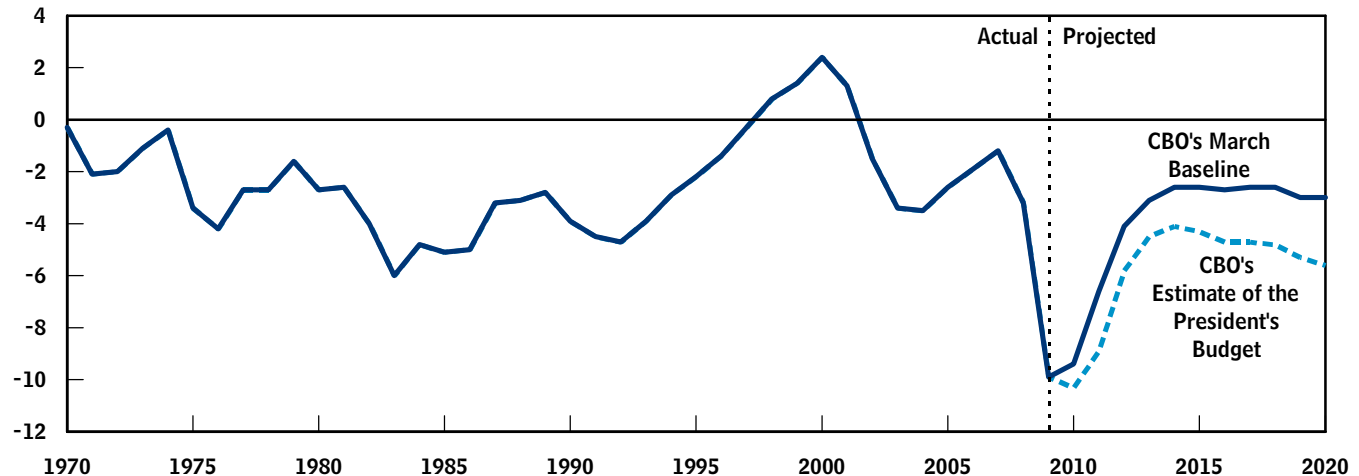
If the President's proposals were enacted, total revenues as a share of GDP would grow from 16.4 percent in 2011 to

19.6 percent in 2020. At that level, revenues would be 0.7 percentage points of GDP below the baseline projection for that year, but 1.5 percentage points above their average share of GDP over the past 40 years.

Total outlays would measure 25.4 percent of GDP in 2011 under the President's budget, as compared with 24.8 percent in 2010. They would fall over the next two years, to 23.0 percent, and then rise over the remainder of the projection period, reaching 25.2 percent in 2020—about 2 percentage points of GDP above the baseline

**Figure 1-1.****Total Deficits or Surpluses, 1970 to 2020**

(Percentage of gross domestic product)



Source: Congressional Budget Office.

projection for that year and well above the 40-year average of 20.7 percent. Mandatory outlays would measure 14.4 percent of GDP in 2011 and then decline to around 13 percent for the next several years. Such outlays would rise in the second half of the projection period, reaching 14.5 percent of GDP in 2020. Discretionary outlays would drop significantly relative to GDP throughout the period, from 9.4 percent in 2010 to 6.6 percent in 2020.

Of the various initiatives the President is proposing, the tax proposals would have by far the largest budgetary impact. The President proposes to index for inflation (starting at their 2009 levels) the amounts exempted from the alternative minimum tax (AMT) and to extend many of the tax reductions enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) and the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA). Over the next 10 years, those policies would reduce revenues and boost outlays for refundable tax credits by a total of \$3.0 trillion.

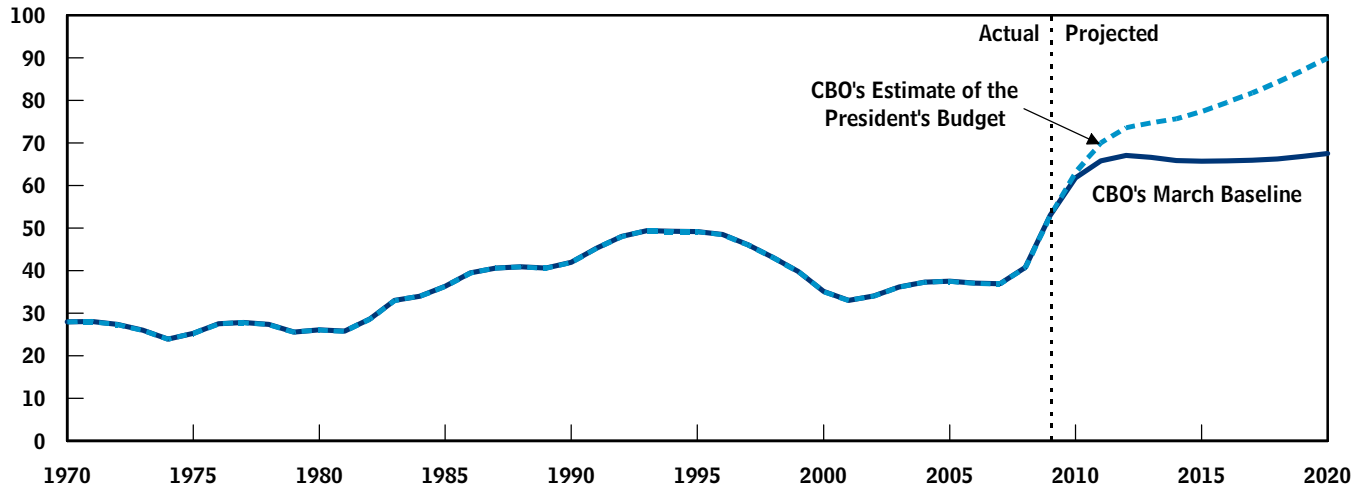
Other policies would have smaller but still significant effects on the budget and would largely offset one another. Freezing Medicare's payment rates for physicians at the current level through 2020, as the President proposes, would boost the cumulative deficit by \$0.3 trillion,

relative to the amount under current law (which calls for sharp reductions in payments to physicians). Various changes that the President proposes for the Pell Grant program would add another \$0.2 trillion to the deficit between 2011 and 2020. Other proposals would reduce projected baseline deficits. Defense spending under the President's budget would total \$0.3 trillion less than the amount projected in CBO's baseline, primarily because the baseline assumes that funding for war-related activities will continue at \$130 billion a year, the amount provided so far this year, with adjustments for inflation—in contrast to the President's placeholder of \$50 billion a year after 2011. A proposal to limit, to 28 percent, the rate at which itemized deductions reduce an individual's tax liability would decrease the deficit by \$0.3 trillion. The President's budget assumes that a proposal to expand health insurance coverage and make other changes to the health care system would lower the deficit by \$0.2 trillion. Other proposals would have smaller effects over the 10-year period.

In a few cases, the Administration did not provide sufficient details about the President's proposals to allow for a full assessment of budgetary effects, so this analysis incorporates the Administration's estimates as placeholders to indicate the approximate effects of the proposed policies.

**Figure 1-2.****Debt Held by the Public Under CBO's March 2010 Baseline and CBO's Estimate of the President's Budget**

(Percentage of gross domestic product)



Source: Congressional Budget Office.

Essentially, CBO has interpreted the Administration's estimates in those cases as indicating targets for the budgetary impact of the detailed policies that may be proposed in the future. For example, the budget does not contain details regarding the President's proposal to expand health insurance coverage and make other changes to the health care system. Instead, the budget contains a placeholder calculated as the average of the effects estimated by CBO and JCT for the bill passed by the House in 2009 and legislation similar to the Senate-passed bill. The Administration extrapolated those estimates for an additional year, through 2020. CBO has incorporated that placeholder in this analysis.<sup>3</sup>

Similarly, the budget refers to a policy on climate change but provides no details; such a policy could have a significant effect on both revenues and outlays, but the Administration has indicated its intent that the policy have no net effect on the deficit. In the absence of details, CBO's analysis of the budget assumes that this intent will be realized.

CBO's estimate of the deficit for 2010 under the President's budget is lower than the Administration's by

\$55 billion but higher in each year thereafter by a total of \$1.2 trillion over the 2011–2020 period. Most of those differences stem from underlying differences in baselines rather than from varying assessments of the effects of the President's policy proposals.

**Policy Proposals Affecting Revenues**

The President proposes a number of changes to tax law over the next decade. If enacted, those policies would decrease revenues relative to the amount in CBO's baseline by \$1.4 trillion over the 2011–2020 period (and would increase outlays, through refundable tax credits, by \$0.4 trillion over the same period).<sup>4</sup> The reductions in revenues from some proposals in the President's budget would be partly offset by increases in revenues from others. As a share of GDP, revenues would average 18.9 percent over the 10-year period (see Table 1-2).

**Provisions Related to EGTRRA and JGTRRA.** Proposals related to modifying and permanently extending provisions of EGTRRA and JGTRRA that are set to expire in 2010 would reduce revenues by \$2.2 trillion (or 1.1 percent of GDP) and increase outlays by \$311 billion (or

3. The placeholder for those broad changes to health care policy does not include the effects of four provisions contained in those bills that the Administration shows separately in the budget.

4. An income tax credit is refundable if the taxpayer receives a refund when the allowable credit exceeds the amount of income tax owed.

**Table 1-2.****CBO's Estimate of the President's Budget**

	Actual												Total,	Total,
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2011-	2011-
	In Billions of Dollars													
<b>Revenues</b>														
On-budget	1,451	1,477	1,787	2,097	2,340	2,545	2,667	2,819	2,956	3,086	3,223	3,385	11,436	26,905
Off-budget	654	642	673	711	755	796	837	874	913	950	988	1,031	3,772	8,528
<b>Total</b>	<b>2,105</b>	<b>2,118</b>	<b>2,460</b>	<b>2,808</b>	<b>3,095</b>	<b>3,341</b>	<b>3,504</b>	<b>3,693</b>	<b>3,869</b>	<b>4,036</b>	<b>4,211</b>	<b>4,416</b>	<b>15,208</b>	<b>35,434</b>
<b>Outlays</b>														
Mandatory spending	2,094	2,034	2,156	2,091	2,176	2,322	2,454	2,636	2,752	2,871	3,084	3,267	11,199	25,808
Discretionary spending	1,237	1,375	1,401	1,334	1,301	1,303	1,323	1,355	1,381	1,407	1,446	1,487	6,662	13,737
Net interest	187	209	244	298	365	440	520	596	675	755	834	916	1,867	5,644
<b>Total</b>	<b>3,518</b>	<b>3,618</b>	<b>3,802</b>	<b>3,722</b>	<b>3,842</b>	<b>4,065</b>	<b>4,297</b>	<b>4,587</b>	<b>4,808</b>	<b>5,032</b>	<b>5,364</b>	<b>5,670</b>	<b>19,727</b>	<b>45,189</b>
On-budget	3,001	3,061	3,223	3,117	3,205	3,398	3,598	3,852	4,032	4,212	4,496	4,750	16,540	37,883
Off-budget	517	557	579	606	637	667	699	736	776	820	867	920	3,187	7,306
<b>Deficit (-) or Surplus</b>	<b>-1,413</b>	<b>-1,500</b>	<b>-1,342</b>	<b>-914</b>	<b>-747</b>	<b>-724</b>	<b>-793</b>	<b>-894</b>	<b>-940</b>	<b>-996</b>	<b>-1,152</b>	<b>-1,254</b>	<b>-4,519</b>	<b>-9,755</b>
On-budget	-1,550	-1,585	-1,435	-1,019	-865	-853	-931	-1,033	-1,076	-1,126	-1,273	-1,365	-5,104	-10,978
Off-budget	137	85	93	105	118	130	138	139	136	130	121	112	585	1,222
Debt Held by the Public	7,545	9,221	10,512	11,579	12,467	13,329	14,256	15,297	16,396	17,553	18,870	20,294	n.a.	n.a.
<b>Memorandum:</b>														
Gross Domestic Product	14,236	14,595	14,992	15,730	16,676	17,606	18,421	19,223	20,036	20,823	21,667	22,544	83,425	187,719
<b>As a Percentage of Gross Domestic Product</b>														
<b>Revenues</b>														
On-budget	10.2	10.1	11.9	13.3	14.0	14.5	14.5	14.7	14.8	14.8	14.9	15.0	13.7	14.3
Off-budget	4.6	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.6	4.6	4.6	4.6	4.5	4.5
<b>Total</b>	<b>14.8</b>	<b>14.5</b>	<b>16.4</b>	<b>17.9</b>	<b>18.6</b>	<b>19.0</b>	<b>19.0</b>	<b>19.2</b>	<b>19.3</b>	<b>19.4</b>	<b>19.4</b>	<b>19.6</b>	<b>18.2</b>	<b>18.9</b>
<b>Outlays</b>														
Mandatory spending	14.7	13.9	14.4	13.3	13.0	13.2	13.3	13.7	13.7	13.8	14.2	14.5	13.4	13.7
Discretionary spending	8.7	9.4	9.3	8.5	7.8	7.4	7.2	7.0	6.9	6.8	6.7	6.6	8.0	7.3
Net interest	1.3	1.4	1.6	1.9	2.2	2.5	2.8	3.1	3.4	3.6	3.8	4.1	2.2	3.0
<b>Total</b>	<b>24.7</b>	<b>24.8</b>	<b>25.4</b>	<b>23.7</b>	<b>23.0</b>	<b>23.1</b>	<b>23.3</b>	<b>23.9</b>	<b>24.0</b>	<b>24.2</b>	<b>24.8</b>	<b>25.2</b>	<b>23.6</b>	<b>24.1</b>
On-budget	21.1	21.0	21.5	19.8	19.2	19.3	19.5	20.0	20.1	20.2	20.8	21.1	19.8	20.2
Off-budget	3.6	3.8	3.9	3.9	3.8	3.8	3.8	3.8	3.9	3.9	4.0	4.1	3.8	3.9
<b>Deficit (-) or Surplus</b>	<b>-9.9</b>	<b>-10.3</b>	<b>-8.9</b>	<b>-5.8</b>	<b>-4.5</b>	<b>-4.1</b>	<b>-4.3</b>	<b>-4.7</b>	<b>-4.7</b>	<b>-4.8</b>	<b>-5.3</b>	<b>-5.6</b>	<b>-5.4</b>	<b>-5.2</b>
On-budget	-10.9	-10.9	-9.6	-6.5	-5.2	-4.8	-5.1	-5.4	-5.4	-5.4	-5.9	-6.1	-6.1	-5.8
Off-budget	1.0	0.6	0.6	0.7	0.7	0.7	0.8	0.7	0.7	0.6	0.6	0.5	0.7	0.7
Debt Held by the Public	53.0	63.2	70.1	73.6	74.8	75.7	77.4	79.6	81.8	84.3	87.1	90.0	n.a.	n.a.

Source: Congressional Budget Office.

Note: n.a. = not applicable.

0.2 percent of GDP) over the next 10 years relative to the amounts in CBO's baseline (see Table 1-3).<sup>5</sup> The provisions scheduled to expire include reductions in some individual income tax rates, reductions in tax rates on capital gains and dividends, changes to estate and gift taxation, limits on phaseouts of personal exemptions and itemized deductions for certain taxpayers, an increase in the child tax credit, relief from the so-called marriage penalty, and changes in the tax treatment of certain investments in equipment by small businesses. Some of those proposals would also affect outlays because the credits are refundable, as discussed later in this chapter.

The President proposes to permanently extend, at 2010 levels, tax rates on income, capital gains, and dividends for married taxpayers with income under \$250,000 and single taxpayers with income under \$200,000. For taxpayers with income above those amounts, the President proposes to maintain the income tax rates, the phaseout of the personal exemption, and the limits on itemized deductions scheduled to go into effect in January 2011 under current law; those higher-income taxpayers would also be subject to a tax rate of 20 percent on capital gains and dividends. In addition, the President proposes to modify estate, gift, and what are termed generation-skipping transfer (GST) taxes.<sup>6</sup> For such taxes, the 2009 parameters would be permanently adopted—incorporating a top tax rate of 45 percent, an estate and GST exemption amount of \$3.5 million, and a lifetime exclusion for gifts of \$1 million. The President also proposes to extend the \$1,000 child tax credit enacted in EGTRRA and the reduced earnings threshold at which families can qualify for at least a partial credit, which was enacted in the American Recovery and Reinvestment Act of 2009 (ARRA).

**Alternative Minimum Tax.** The President proposes to provide relief from the AMT mainly by permanently setting various provisions—the AMT exemption amount, the income threshold for the 28 percent tax rate, and the

income threshold for the phaseout of the exemption amount—at their 2009 levels and then indexing those amounts for inflation and permanently extending the unrestricted use of certain personal tax credits under the AMT. Relative to current law, the proposal would reduce revenues by \$577 billion between 2011 and 2020, JCT estimates.<sup>7</sup>

**Health Care Legislation.** The proposal that would raise the most revenues, relative to the amounts in the baseline, is health insurance reform. The President's budget includes a placeholder of \$743 billion in related revenues between 2011 and 2020. Because the Administration did not provide details of an underlying legislative proposal, for the purposes of this analysis CBO has assumed that the policies would have the effect set forth in the budget.

**Limits on the Rate at Which Itemized Deductions Reduce Tax Liability.** The President's proposal to limit, to 28 percent, the rate at which itemized deductions reduce an individual's tax liability would increase revenues by \$289 billion, according to JCT.

**Reform of the U.S. International Tax System.** The President proposes a series of changes to the U.S. system of taxing international income that JCT estimates would raise revenues by \$127 billion over 10 years. Those changes include strengthening information-reporting requirements and modifying tax rules, particularly as they relate to calculating foreign tax credits and allocating expenses and income between domestic and offshore foreign sources.

**Financial Crisis Responsibility Fee.** The President also seeks to impose a fee—termed the Financial Crisis Responsibility Fee—on certain financial firms with assets above \$50 billion; the fee would equal about 0.15 percent of the value of certain types of liabilities. Pending further specification of the details of the proposal, this analysis incorporates the Administration's estimate that the fee would raise \$90 billion through 2020.

5. The estimate of revenues incorporates the effects of interactions with the proposal for the AMT, which increase the projected loss of revenues.

6. GST taxes are levied on transfers directly from a decedent to an heir who is more than one generation younger than the decedent, such as a grandchild.

7. The estimate does not include the interactions between the AMT provisions and the proposal to extend and modify the tax provisions related to EGTRRA and JGTRRA. As mentioned in footnote 5, the effects are included in the estimate for that proposal.



**Build America Bonds Program.** The Build America Bonds program, which was created under ARRA, provides a subsidy payment to state and local governments for 35 percent of their interest costs on taxable government bonds issued through 2010 to finance capital expenditures. The President proposes to expand and permanently extend the program but to lower the subsidy rate to 28 percent. By substituting taxable for tax-exempt bonds, the program increases taxable interest income. According to JCT, the proposal would increase revenues by \$80 billion over the 2011–2020 period.<sup>8</sup>

**Making Work Pay Tax Credit.** The President proposes to extend for one year the Making Work Pay credit, which expires at the end of 2010 under current law. The credit equals 6.2 percent of earned income, up to a maximum credit amount of \$800 for married taxpayers (\$400 for single filers) and phases out for married taxpayers with income above \$150,000 (\$75,000 for single filers). Extending the credit would reduce revenues by \$42 billion between 2011 and 2020, according to JCT. (As discussed later in the chapter, this proposal would also affect outlays because the credit is refundable.)

**Jobs Initiatives.** The President proposes to provide temporary tax credits for businesses that hire new employees and increase their payroll. Those employment-related initiatives would reduce revenues by \$16 billion in 2010 and \$24 billion in 2011, JCT estimates.

**Other Proposals Affecting Revenues.** All other tax proposals in the President's budget would have the net effect of raising revenues by \$29 billion over 10 years. Proposals that would raise revenues include repealing the "last-in, first-out" method of accounting for inventories and reducing tax preferences for the production of fossil fuels. Partly offsetting those increases would be reductions in revenues from extending temporary bonus depreciation for certain property and making permanent the research and experimentation tax credit, among other proposals.<sup>9</sup>

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8. The subsidy payments made by the federal government to states and localities are recorded on the outlay side of the budget. The proposed changes would increase outlays by an estimated \$88 billion over 10 years.

9. Bonus depreciation allows firms to immediately deduct from taxable income a portion of any investment made in equipment.

## Proposals Affecting Mandatory Spending

The President proposes changes to mandatory spending that would, on net, increase such spending (relative to that authorized under current law) by \$65 billion in 2010 and by \$1.9 trillion over the 2011–2020 period. Those totals do not include the impact of the additional borrowing that would occur under the President's budget, which would boost net interest payments by about \$800 billion (0.4 percent of GDP) relative to CBO's baseline estimate.

**Health Care Legislation.** The proposal to expand health insurance coverage and make other changes to the health care system would have the largest effect on mandatory spending. The Administration estimates that such legislation would increase mandatory outlays by \$6 billion in 2010 and by \$593 billion from 2011 through 2020—about \$150 billion less than the added revenues assumed to result from such legislation. As in the case of revenues, that estimate of outlays is a placeholder calculated by the Administration that CBO has incorporated in this analysis.

**Refundable Tax Credits.** The Administration proposes to extend or expand various refundable tax credits, including the earned income, child, Making Work Pay, and certain education credits. The portion of a refundable tax credit that exceeds a person's tax liability is paid to that taxpayer and recorded as an outlay in the budget. In addition, other tax proposals would also generate some additional outlays for refundable tax credits. According to JCT's estimates, all of those changes would boost outlays by \$401 billion over the 2011–2020 period.

**Education.** Most of the President's proposals for education fall into two areas. The first would replace the existing discretionary funding for Pell grants with new mandatory spending, index the maximum award for inflation in future years beginning in 2011, and make changes to the formulas that determine eligibility for grants. Under current law, the program is funded with a combination of annual discretionary appropriations and mandatory funds. The proposed changes would boost mandatory spending by \$374 billion over the 2011–2020 period, of which \$177 billion would replace discretionary spending in CBO's baseline; thus, the net effect of the proposal would be an increase of \$197 billion in outlays over the next 10 years. Because the program has already received an appropriation this year, however, CBO continues to categorize current year spending for Pell grants

**Table 1-3.****CBO's Estimate of the Effect of the President's Budget on Baseline Deficits**

(Billions of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011- 2015	Total, 2011- 2020
Total Deficit as Projected in CBO's March 2010 Baseline	-1,368	-996	-642	-525	-463	-472	-513	-521	-534	-641	-684	-3,097	-5,990
Effect of the President's Proposals													
Revenues													
Provisions related to EGTRRA and JGTRRA <sup>a</sup>													
Modify individual income tax rates <sup>b</sup>	0	-67	-99	-106	-113	-118	-123	-128	-133	-138	-143	-503	-1,169
Provide relief from the marriage penalty	0	-18	-26	-28	-30	-31	-32	-33	-34	-35	-36	-134	-306
Modify capital gains and dividend tax rates <sup>c</sup>	*	-5	-16	-20	-22	-25	-27	-29	-30	-32	-33	-88	-238
Modify estate and gift tax rates	*	5	-18	-21	-25	-28	-30	-32	-33	-35	-37	-87	-253
Extend child tax credit provisions <sup>d</sup>	0	-6	-12	-12	-13	-13	-13	-13	-13	-13	-13	-56	-120
Other provisions	0	-4	-9	-8	-8	-7	-7	-6	-6	-6	-7	-37	-68
Subtotal	*	-95	-180	-196	-210	-223	-232	-241	-250	-259	-269	-904	-2,154
Index the AMT starting from 2009 levels <sup>a</sup>	-6	-66	-32	-36	-41	-46	-52	-60	-70	-81	-93	-221	-577
Expand coverage and modify health care system	0	16	18	41	57	76	90	98	107	116	127	207	743
Limit the tax rate at which itemized deductions													
reduce tax liability	0	7	22	24	26	29	31	34	36	38	41	109	289
Reform the U.S. international tax system	*	6	12	12	13	13	14	14	13	14	15	57	127
Impose a Financial Crisis Responsibility Fee	0	8	8	9	9	9	9	9	9	10	10	43	90
Modify and extend the Build America													
Bonds program	0	*	2	4	5	7	9	10	12	14	16	19	80
Extend the Making Work Pay tax credit	0	-29	-13	0	0	0	0	0	0	0	0	-42	-42
Undertake jobs initiatives	-16	-24	0	0	0	0	0	0	0	0	0	-24	-24
Other proposals	-36	-37	4	17	13	10	7	5	4	3	3	7	29
<b>Total Effect on Revenues</b>	<b>-58</b>	<b>-213</b>	<b>-159</b>	<b>-126</b>	<b>-127</b>	<b>-125</b>	<b>-125</b>	<b>-131</b>	<b>-138</b>	<b>-144</b>	<b>-151</b>	<b>-750</b>	<b>-1,439</b>
Outlays													
Mandatory													
Expand coverage and modify health care													
system	6	-7	-17	2	30	73	102	100	101	104	107	80	593
Extend or expand refundable tax credits	*	*	61	42	42	41	42	42	43	44	45	185	401
Modify Pell grants <sup>e</sup>	2	14	33	35	38	37	39	41	43	46	49	157	374
Freeze Medicare's physician payment rates	5	15	19	22	23	26	29	32	35	40	45	105	286
Modify and extend the Build America													
Bonds program	0	1	3	4	6	8	10	11	13	15	17	21	88
Undertake jobs initiatives	12	25	8	3	2	0	0	0	0	0	0	38	38
Shift to only direct lending for student loans	-1	-6	-8	-7	-7	-7	-7	-6	-6	-7	-7	-35	-67
Other proposals	41	57	9	12	12	10	10	9	8	7	6	100	139
Subtotal, mandatory	65	99	108	112	145	188	223	229	237	250	262	652	1,853

Continued

**Table 1-3.****Continued****CBO's Estimate of the Effect of the President's Budget on Baseline Deficits**

(Billions of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011- 2015	Total, 2011- 2020
Outlays (Continued)													
Discretionary													
Defense	8	33	-1	-36	-49	-50	-50	-48	-47	-46	-44	-105	-339
Nondefense	1	-4	-9	-8	-3	1	4	5	5	7	14	-24	10
Subtotal, discretionary	8	29	-11	-44	-53	-50	-46	-44	-42	-39	-30	-128	-329
Net interest	1	6	16	27	41	58	79	103	129	156	187	149	803
<b>Total Effect on Outlays</b>	<b>73</b>	<b>133</b>	<b>114</b>	<b>95</b>	<b>134</b>	<b>196</b>	<b>256</b>	<b>288</b>	<b>324</b>	<b>367</b>	<b>419</b>	<b>672</b>	<b>2,327</b>
<b>Total Effect on the Deficit<sup>f</sup></b>	<b>-132</b>	<b>-346</b>	<b>-273</b>	<b>-221</b>	<b>-261</b>	<b>-321</b>	<b>-381</b>	<b>-419</b>	<b>-462</b>	<b>-511</b>	<b>-570</b>	<b>-1,422</b>	<b>-3,765</b>
Total Deficit Under the President's Proposals as Estimated by CBO	-1,500	-1,342	-914	-747	-724	-793	-894	-940	-996	-1,152	-1,254	-4,519	-9,755
<b>Memorandum:</b>													
Total Deficit Under the President's Proposals as Estimated by OMB	-1,556	-1,267	-828	-727	-706	-752	-778	-778	-785	-908	-1,003	-4,280	-8,532

Sources: Congressional Budget Office; Joint Committee on Taxation.

Note: \* = between -\$500 million and \$500 million; EGTRRA = Economic Growth and Tax Relief Reconciliation Act of 2001; JGTRRA = Jobs and Growth Tax Relief Reconciliation Act of 2003; AMT = alternative minimum tax; OMB = Office of Management and Budget.

- The estimated effects of the President's proposals related to EGTRRA and JGTRRA interact with the proposal to index the AMT. This analysis first estimates the revenue effects of the proposal for the AMT relative to projections under current law, and it then estimates the proposals related to EGTRRA and JGTRRA relative to projections under current law modified for the proposed changes to the AMT. Thus, the estimate for the proposals related to EGTRRA and JGTRRA includes estimated losses in revenues that would result from interactions with the AMT proposal.
- The estimates include the effects of maintaining, for taxpayers with income above certain levels, the income tax rates of 36 percent and 39.6 percent scheduled to go into effect in 2011 under current law. For the remaining taxpayers, tax rates would be at the levels for 2010 specified in EGTRRA.
- The estimates include the effects of imposing a 20 percent tax rate on capital gains and dividends for taxpayers with income above certain levels, starting in January 2011. Tax rates for the remaining taxpayers would be at the levels for 2010 specified in JGTRRA.
- The estimates include the effects of extending the \$1,000 child tax credit enacted in EGTRRA and the reduced earnings threshold for the refundable portion, which was enacted in the American Recovery and Reinvestment Act of 2009.
- The current Pell Grant program includes both discretionary and mandatory components. CBO's estimate of the costs of modifying Pell grants includes indexing the maximum award level for future years (beginning in 2011), making changes to the formulas that determine eligibility for grants, and replacing the existing discretionary spending with new mandatory spending. That change would result in eliminating discretionary spending for Pell grants from CBO's baseline, which currently includes \$177 billion in outlays for new grant awards over the 2011–2020 period.
- Negative numbers indicate an increase in the deficit.

as discretionary, whereas the President's budget categorizes it as mandatory. As a result, CBO's estimate of mandatory outlays is \$25 billion lower than the Administration's in 2010.

The second major proposal for education would eliminate the federal program providing guarantees for student loans, replacing them with loans made directly by the Department of Education. Under the Federal Credit Reform Act, the budgetary cost of both guaranteed and direct loans is the estimated present value of the total cash flows over the life of each loan; such cash flows are discounted to the time of loan disbursement using the rates on U.S. Treasury securities of comparable maturity. Under current law, according to CBO's estimates, guaranteed loans will account for 55 percent of all federal student loans in 2010, and that share will fall to 40 percent by 2013. The direct loan program is estimated to have a lower cost per dollar loaned than the guaranteed loan program has. Therefore, replacing the guaranteed loan program by providing additional direct loans would, by CBO's estimates, yield budgetary savings totaling \$1 billion in 2010 and \$67 billion over the 2011–2020 period.<sup>10</sup>

**Medicare's Payment Rates for Physicians.** Under current law, Medicare's payment rates for physicians' services are slated to be reduced by 21 percent beginning in April 2010, by about 6 percent in 2011, and by about 2 percent a year for most of the rest of the decade. The President proposes to avoid those reductions by freezing the payment rates at the 2009 levels through 2020. The higher payments to physicians that would result under the proposal (relative to those under current law) would increase outlays by \$5 billion in 2010 and by \$286 billion from 2011 to 2020.

**Build America Bonds.** The President's proposal to extend and expand the Build America Bonds program and to lower the subsidy rate paid to state and local governments (from 35 percent to 28 percent) under the program

10. The gross savings (affecting mandatory spending) for the proposal would be partially offset by an increase in discretionary costs for administration of new direct loans, subject to appropriation of the necessary amounts. For more details, see Congressional Budget Office, *letter to the Honorable Judd Gregg on the budgetary impact of the President's proposal to alter federal student loan programs* (March 15, 2010).

would increase outlays by \$88 billion over the 2011–2020 period.<sup>11</sup>

**Jobs Initiatives.** The Administration has proposed to spend a total of \$50 billion on unspecified policies to promote job creation. The budget states that, as a result, outlays would increase by \$12 billion this year and by \$38 billion over the 2011–2014 period; CBO assumes that the President will propose policies consistent with those figures and has therefore included those outlays in its analysis.

**Other Proposals Affecting Mandatory Spending.** Other proposals in the President's budget would increase spending only this year or next. Such proposals include an extension of benefits for the unemployed, which would cost \$24 billion in 2010, and a one-time payment of \$250 this year for Social Security beneficiaries, which would cost \$14 billion. In addition, the Administration would extend for one year the increase, enacted in ARRA, in the share of Medicaid costs paid by the federal government—at a cost of \$24 billion in 2011.

### Proposals for Discretionary Spending

Discretionary outlays under the President's budget would total \$1.4 trillion in both 2010 and 2011 and \$13.7 trillion over the 2011–2020 period, CBO estimates. That cumulative amount is \$329 billion below CBO's baseline estimate, largely as a result of reduced spending for activities related to the wars in Iraq and Afghanistan.<sup>12</sup>

For 2010, the Administration is requesting \$47 billion in supplemental funding. Of that amount, nearly \$35 billion would be appropriated for war-related activities—\$31 billion for military operations and \$4 billion for diplomatic operations and foreign aid. (The Department of Defense has also requested \$2 billion to address higher fuel costs in operations and activities unrelated to the

11. As described earlier, the proposal would also increase revenues by \$80 billion. Thus, the net impact on the budget is an estimated increase in deficits of about \$8 billion over the 2011–2020 period.

12. According to footnote 1 in Summary Table S-10 of the President's budget submission, requested funding for most discretionary programs after 2011 is based on the Administration's assumed rates of inflation. If CBO's projections of inflation were applied to such funding, discretionary outlays under the President's budget over the 2011–2020 period would be about \$40 billion lower.

**Table 1-4.**

## Proposed Changes in Discretionary Budget Authority in the President's Budget, 2009 to 2011

(Billions of dollars)

	Actual 2009	Administration's Request		Percentage Change	
		2010	2011	2009–2010	2010–2011
Discretionary Budget Authority					
Defense					
War-related	146	161	159	10.0	-1.0
Other	549	556	574	1.4	3.2
Subtotal	695	717	733	3.2	2.2
Nondefense					
War-related	8	4	0	-41.0	-100.0
Other	791	552	537	-30.2	-2.7
Subtotal	798	556	537	-30.3	-3.5
<b>Total</b>	<b>1,493</b>	<b>1,273</b>	<b>1,270</b>	<b>-14.7</b>	<b>-0.3</b>
<b>Memorandum:</b>					
Discretionary Budget Authority Excluding Funding for ARRA					
Defense					
War-related	146	161	159	10.0	-1.0
Other	536	556	574	3.8	3.2
Subtotal	682	717	733	5.1	2.2
Nondefense					
War-related	8	4	0	-41.0	-100.0
Other	523	552	537	5.6	-2.7
Subtotal	530	556	537	4.9	-3.5
<b>Total</b>	<b>1,213</b>	<b>1,273</b>	<b>1,270</b>	<b>5.0</b>	<b>-0.3</b>

Source: Congressional Budget Office.

Notes: Does not include obligation limitations for certain transportation programs.

ARRA = American Recovery and Reinvestment Act of 2009.

wars.) In addition, the President requests \$5 billion for disaster relief and almost \$5 billion to resolve discrimination claims by certain black farmers as well as to fund a settlement related to the management of funds held by the government for Native Americans. In total, CBO estimates, the proposed supplemental funding would increase outlays by \$10 billion this year and by \$37 billion in future years. Furthermore, providing funding for the Pell Grant program (as the President proposes) through permanent law rather than through appropriations would reduce discretionary outlays by nearly \$2 billion in 2010 (and \$177 billion from 2011 through 2020).

For 2011, the President has requested \$1.3 trillion in discretionary budget authority—an amount that is nearly identical to the total for 2010, based on the amount provided thus far plus the requested supplemental funding for this year—consisting of \$733 billion for national defense and \$537 billion for nondefense programs (see Table 1-4). Under the President's budget, total discretionary funding would drop over the following two years, to \$1.2 trillion, but would grow thereafter, reaching nearly \$1.5 trillion by 2020.

**Table 1-5.**

## Discretionary Budget Authority Requested by the President for 2011 Compared with Funding for 2010, by Budget Function

(Billions of dollars)

	Funding for 2010			2011 Total Funding	Change in Funding, 2010-2011	
	Regular Enacted	Supplemental Requested <sup>a</sup>	2010 Total Funding		Billions of Dollars	Percent
Defense	684.1	33.0	717.1	733.1	16.0	2.2
Nondefense						
International affairs	52.9	4.5	57.4	58.8	1.5	2.5
General science, space, and technology	31.0	0	31.0	31.3	0.4	1.2
Energy	5.3	0	5.3	6.4	1.1	20.0
Natural resources and environment	36.5	0	36.5	35.7	-0.8	-2.2
Agriculture	6.9	1.2	8.0	6.6	-1.4	-18.1
Commerce and housing credit	8.5	0	8.5	2.3	-6.2	-72.6
Transportation	35.8	0	35.8	33.7	-2.1	-5.9
Community and regional development	15.9	7.1	23.0	20.7	-2.3	-9.9
Education, training, employment, and social services	89.3	0	89.3	76.1	-13.2	-14.7
Health	58.1	0	58.1	59.8	1.7	2.9
Medicare (Administrative costs)	5.9	0	5.9	6.5	0.6	9.4
Income security	66.2	0	66.2	66.4	0.2	0.3
Social Security (Administrative costs)	5.8	0	5.8	6.3	0.5	7.9
Veterans benefits and services	53.2	0	53.2	57.2	3.9	7.4
Administration of justice	51.7	0	51.7	48.9	-2.9	-5.5
General government	19.1	1.4	20.5	20.2	-0.3	-1.6
Other	0.0	0	0.0	*	*	-0.7
Subtotal, nondefense	542.1	14.1	556.2	536.8	-19.4	-3.5
<b>Total</b>	<b>1,226.2</b>	<b>47.1</b>	<b>1,273.3</b>	<b>1,269.9</b>	<b>-3.4</b>	<b>-0.3</b>
<b>Memorandum:</b>						
Transportation Obligation Limitations <sup>a</sup>	54.2	0	54.2	54.5	0.2	0.4
Defense Excluding Funding for Military Operations in Iraq and Afghanistan	554.1	2.0	556.1	573.8	17.7	3.2

Source: Congressional Budget Office.

Notes: \* = between -\$500 million and \$500 million.

- a. Spending from the Highway Trust Fund and the Airport and Airway Trust Fund is provided through obligation limitations. Budget authority for those programs is provided in authorizing legislation and is not considered discretionary. The President proposes reclassifying some funding for highway and mass transportation programs as discretionary budget authority rather than as obligation limitations.

From 2010 to 2011, funding for discretionary defense programs in the President's budget would grow by \$16 billion, or 2.2 percent. Budget authority unrelated to military operations in Iraq and Afghanistan would grow by \$18 billion, or more than 3 percent. Partially offsetting that increase, appropriations for the wars would edge

down from \$161 billion this year (with the requested supplemental appropriations included) to \$159 billion in 2011.

For the period after 2011, the Administration's budget includes the placeholder of \$50 billion a year for war-

related operations. As a result, overall funding for defense would drop from \$733 billion in 2011 to \$642 billion in 2012 and would remain below the 2011 amount until 2018. Funding for defense activities other than military operations in Iraq and Afghanistan would grow by an average of 3 percent annually through 2020.

Total nondefense discretionary budget authority requested by the President would fall from \$556 billion in 2010 to \$537 billion in 2011 (see Table 1-5). Most of that drop would result from the proposal to provide mandatory funding for Pell grants rather than continue the program with funding that is primarily discretionary (which would reduce discretionary funding by \$18 billion in 2011). Additionally, most supplemental funding for 2010 is not repeated in the request for 2011, and funding for the census would be reduced by \$6 billion next year (following the completion of the decennial census this year).

Conversely, budget authority for veterans' benefits and services would grow by almost \$4 billion in 2011, primarily because of an advance appropriation for health care already provided for 2011. Additionally, funding for health programs would also increase by \$1.7 billion, mostly for research conducted by the National Institutes of Health. Other areas of the budget that would see an increase in funding are international affairs (\$1.5 billion) and energy (\$1.1 billion).

Overall, nondefense appropriations that the Administration classified as related to "security" would see a \$14 billion increase from 2010 to 2011, while other nondefense programs (excluding supplemental funding requested for 2010 and the shift in funding for Pell grants) would remain at essentially the same level next year.<sup>13</sup> Subsequently, programs classified as related to security would grow gradually, but funding for other programs would remain flat through 2013; past that point, funding for

programs not classified as related to security would also rise gradually through 2020.

## Differences Between CBO's and the Administration's Budget Estimates

CBO's estimate of the deficit under the President's policies is \$55 billion lower than the Administration's for 2010. For the 2011–2020 period, CBO's estimate of the cumulative deficit exceeds that projected by the Administration by \$1.2 trillion.

Those differences stem mainly from differences between CBO's and the Administration's baselines rather than from diverging assessments of the effects of the President's policy proposals. Overall, CBO's estimate of revenues between 2011 and 2020 under the President's budget is below the Administration's by \$1.8 trillion; most of that difference stems from the impact of CBO's economic assumptions relative to those used by the Administration. However, CBO's economic assumptions also produce lower estimates of outlays over that same period—about three-quarters of the magnitude of the difference in revenues. In total, differences deriving from economic assumptions account for \$0.3 trillion of the gap between the two estimates of the cumulative deficit. The larger difference—\$0.9 trillion—results from variation in modeling and other technical assumptions (see Table 1-6).

Very small differences also result from CBO's incorporating legislation enacted after the release of the President's budget.

**Differences in 2010.** CBO's estimate of receipts for the current year is \$47 billion lower than the Administration's. Differences in the baselines cause the Administration's estimate of revenues for 2010 under current law to exceed CBO's by \$54 billion; that figure is slightly offset by CBO and JCT's estimate that the President's policy proposals will lower revenues by \$7 billion less than the Administration's estimate. Much of the variance between the 2010 baseline revenue estimates arises from technical differences. Those differences may result, in part, from different judgments about the persistence of recent weakness in the collections of individual and corporate income taxes.

13. The Administration applies the classification "security" to discretionary funding for the Departments of Defense, Homeland Security, and Veterans Affairs and the National Nuclear Security Administration in the Department of Energy. The classification also applies to discretionary funding for programs related to international affairs.

**Table 1-6.**

**Sources of Differences Between CBO's and the Administration's Estimates of the President's Budget**

(Billions of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-	Total, 2011-
	Administration's Estimate											2015	2020
Deficit Under the President's Budget	-1,556	-1,267	-828	-727	-706	-752	-778	-778	-785	-908	-1,003	-4,280	-8,532
<b>Sources of Differences Between CBO and the Administration</b>													
<b>Revenue Differences</b>													
Legislative	-1	*	*	*	*	*	*	*	*	*	*	-1	-1
Economic	-6	-73	-94	-75	-79	-117	-162	-202	-234	-257	-272	-438	-1,566
Technical	-41	-33	-24	-18	-35	-12	-31	-24	-30	-38	-21	-123	-267
Subtotal	-47	-107	-119	-93	-114	-130	-194	-225	-264	-295	-294	-563	-1,834
<b>Outlay Differences</b>													
<b>Mandatory</b>													
Legislative	*	*	*	*	*	*	*	*	*	*	*	*	*
Economic	-5	-10	-24	-49	-73	-85	-96	-105	-116	-136	-154	-240	-848
Technical	-86	-2	4	12	26	35	31	37	40	33	32	74	247
Subtotal, mandatory	-91	-12	-20	-37	-47	-50	-65	-68	-76	-103	-122	-166	-601
<b>Discretionary</b>													
Legislative	*	*	*	*	0	0	0	0	0	0	0	*	*
Technical	-33	-13	33	34	20	13	18	10	2	4	3	86	123
Subtotal, discretionary	-33	-13	33	34	20	13	18	10	2	4	3	86	123
<b>Net Interest</b>													
Legislative	*	*	*	*	*	*	*	*	*	*	*	*	1
Economic	2	-26	-58	-83	-84	-70	-52	-31	-7	12	30	-321	-369
Technical	19	20	13	12	15	18	22	25	29	36	47	78	236
Subtotal	22	-7	-45	-71	-69	-51	-31	-6	22	49	77	-243	-132
Subtotal, outlays	-102	-32	-33	-74	-96	-89	-78	-63	-52	-51	-43	-323	-610
<b>Total, All Differences<sup>a</sup></b>	<b>55</b>	<b>-75</b>	<b>-86</b>	<b>-19</b>	<b>-18</b>	<b>-41</b>	<b>-116</b>	<b>-162</b>	<b>-211</b>	<b>-244</b>	<b>-251</b>	<b>-239</b>	<b>-1,223</b>
<b>CBO's Estimate</b>													
CBO's Estimate of the Deficit Under the President's Budgetary Policies	-1,500	-1,342	-914	-747	-724	-793	-894	-940	-996	-1,152	-1,254	-4,519	-9,756
<b>Memorandum:<sup>a</sup></b>													
Total Legislative Differences	-1	*	*	*	*	*	*	*	*	*	*	-1	-2
Total Economic Differences	-3	-37	-12	57	79	37	-14	-66	-111	-133	-148	123	-349
Total Technical Differences	59	-38	-73	-75	-97	-78	-102	-95	-101	-111	-103	-361	-873

Sources: Congressional Budget Office; Joint Committee on Taxation.

Note: \* = between -\$500 million and \$500 million.

a. Positive numbers denote that such differences cause CBO's estimate of the deficit to be lower than the Administration's estimate.



CBO's estimate of outlays in 2010 is \$102 billion less than the Administration's estimate; almost all of the difference involves spending under current law. Of that amount, \$91 billion derives from a lower estimate of mandatory outlays. That figure is the net result of many differences, the largest being a difference in baseline estimates of outlays for Fannie Mae and Freddie Mac. Mostly because CBO and the Administration have adopted different budgetary treatments for those entities, CBO's estimate of outlays for them this year is \$36 billion less than the Administration's. CBO's estimate of 2010 outlays reflects the likely future cost of mortgage guarantees made in 2010, whereas the Administration's estimate largely reflects the continuing deterioration of mortgages issued before 2010.<sup>14</sup>

CBO's estimate of mandatory spending for Pell grants is \$25 billion lower than the Administration's in 2010, mostly because of the difference described above in categorizing this year's funding for the Pell Grant program. The agency's estimate of spending for unemployment benefits is also lower, by \$22 billion, mostly because of different judgments related to the amount of benefits to be paid for emergency unemployment compensation and extended benefits.<sup>15</sup> In the other direction, estimates of outlays for the Troubled Asset Relief Program (TARP) are \$17 billion higher in CBO's baseline than in the Administration's, as a result of different assessments of the future costs of assistance provided by the program.<sup>16</sup> The remaining differences in estimates of mandatory outlays—which amount to \$25 billion—are spread among a number of other programs.

For discretionary spending, CBO's estimate for 2010 is also lower than the Administration's, by \$33 billion. The two largest sources of difference are in spending for defense and education, and they nearly offset each other. CBO anticipates slower spending than does the Administration from 2010 appropriations for activities related to the wars in Iraq and Afghanistan (including spending of supplemental funds); as a result, CBO's estimate for 2010

is \$16 billion lower. Conversely, CBO estimates \$16 billion more in discretionary spending for education programs than does the Administration, mostly because of the difference in categorizing funding for Pell grants. For various energy and transportation programs, CBO anticipates a slower rate of spending than does the Administration; consequently, CBO's estimate of discretionary spending for those programs this year is \$17 billion lower than the Administration's. Smaller differences in a number of other areas of the budget make up the remaining \$14 billion of variance between the agencies' estimates of discretionary spending for 2010.

In their estimates of net interest in 2010, CBO and the Administration differ by \$22 billion; CBO's higher estimate derives mostly from differences in assessing transactions related to credit programs (such as projections of cash flows for the federal student loan program) and technical differences associated with borrowing related to cash flows for the TARP.

**Differences over the 2011–2020 Period.** For the years beyond 2010, CBO's estimates of the annual deficit exceed the Administration's. The gap is \$75 billion in 2011 and \$86 billion in 2012; it diminishes to just under \$20 billion in 2013 and 2014 but then rises steadily each year thereafter, reaching \$251 billion by 2020. As noted above, most of the gap stems from underlying differences in the baseline projections, rather than differences in estimates of the effects of the Administration's policy proposals.

Differences in revenue projections explain most of the variance between CBO and the Administration in their estimates of the deficit; for the 2011–2020 period, CBO projects about \$183 billion less per year in receipts, on average, than does the Administration and \$1.8 trillion less overall—a difference of about 5 percent. Most of that difference stems from varying economic assumptions. Most notably, CBO estimates that, over the next 10 years, nominal GDP and wages and salaries will both be about 4.5 percent lower than the Administration projects. Other, much smaller, differences stem from technical judgments about the revenues yielded from a given set of economic conditions, as well as the effects on revenues of the Administration's policy proposals.

CBO's estimates of spending also are lower than the Administration's—though the gap is smaller, averaging about \$61 billion (or 1.3 percent) per year and totaling

14. For a discussion of the budgetary treatment of Fannie Mae and Freddie Mac and the differences between CBO's and the Administration's treatment, see Congressional Budget Office, *CBO's Budgetary Treatment of Fannie Mae and Freddie Mac* (January 2010).

15. Those programs provide additional benefits to people who exhaust their regular unemployment compensation.

16. See Congressional Budget Office, *Report on the Troubled Asset Relief Program—March 2010* (March 2010).

\$610 billion over all 10 years of the projection period. The difference is driven mainly by a gap in estimates of mandatory outlays; CBO projects \$601 billion less in mandatory spending than does the Administration. Differences related to economic factors, totaling \$848 billion, account for more than all of that amount—comprising lower estimates of Medicare outlays and of cost-of-living adjustments for retirement and other benefit programs because of CBO's lower projections for inflation.

Technical differences in estimates of mandatory outlays go in the other direction, adding \$247 billion to CBO's outlay estimates relative to those of the Administration. That gap is made up of several offsetting differences; for technical reasons alone (leaving aside other factors) CBO estimates outlays that are higher for Medicare (by \$437 billion), mortgage credit programs (by \$99 billion) and deposit insurance (by \$54 billion), which are offset by lower estimates of spending for Medicaid (by \$166 billion) and veterans' compensation and pensions (by \$126 billion).

CBO projects higher discretionary outlays than does the Administration—\$123 billion more over the 10-year period—almost entirely resulting from divergent estimates of collections related to certain housing programs and spending related to defense appropriations.

Differences between CBO and the Administration in estimates of net interest outlays total \$132 billion for the 2011–2020 period. Economic differences push CBO's total below the Administration's by \$369 billion, primarily because of lower projected interest rates for Treasury securities. On average, between 2011 and 2020, the rates that CBO anticipates are 77 basis points lower for 3-month Treasury bills and 55 basis points lower for 10-year Treasury notes.<sup>17</sup> Technical differences offset that difference by \$236 billion, stemming from varying estimates of cash flows in the financing accounts for credit programs as well as additional debt-service costs stemming from technical differences elsewhere in the budget.

17. A basis point is one one-hundredth of a percentage point.

## CBO's Baseline Budget Projections

In conjunction with its analysis of the President's budget, CBO routinely updates its baseline budget projections, which assume the continuation of current tax and spending policies over the next 10 years. Those revisions take into account new information gleaned from the President's budget and other sources, as well as any legislation enacted since the completion of the previous baseline in January.<sup>18</sup> CBO's current baseline projections differ slightly from those the agency released on March 5 because it has incorporated the effect of legislation that was enacted after it completed that preliminary analysis, along with other minor revisions.

As is typical for CBO's March analyses, the agency has used the same set of economic assumptions as in the January baseline. The information about the economy that has become available since the January forecast was developed indicates stronger growth in output during the second half of last year and slower growth in wages and salaries, but most other economic data—on inflation, interest rates, employment, total personal income, household spending, and business fixed investment (which includes businesses' spending on structures, equipment, and software)—have been similar to the figures in the January forecast. On balance, the recent information indicates that CBO's January forecast remains a reasonable basis for budget projections.

CBO's March revisions to its baseline have produced modest net changes to the estimates of the deficit this year and the cumulative 10-year total. CBO's current estimate of the deficit for 2010 is \$20 billion higher than the amount projected in January (see Table 1-7). The agency now estimates that, in the absence of further legislation affecting spending or revenues, the deficit in 2010 will reach \$1.37 trillion, up slightly from the \$1.35 trillion it projected earlier this year. (The President's proposals would add to CBO's baseline projections of this year's deficit and future ones.) Changes to baseline projections of the cumulative deficit for the 2011–2020 period are similarly modest but result in a net decrease; assuming the continuation of current laws and policies, CBO estimates

18. For CBO's previous baseline projections, see Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2010 to 2020* (January 2010).

a 10-year deficit totaling \$5.99 trillion, down \$57 billion from the \$6.05 trillion projected in January. As a share of GDP, CBO's estimate of the baseline deficit over the 2011–2020 period is unchanged, at 3.2 percent (see Table on page 20).

CBO raised its projections of revenues by relatively small amounts, about \$2 billion for 2010 and \$4 billion per year on average from 2011 to 2020. The largest change stems from increased projections of taxable income resulting from the Build America Bonds program.

The changes in CBO's baseline outlay projections mostly result from technical updates. A few pieces of legislation were enacted into law between the publication of the January baseline and the completion of the estimates for this report on March 12. The estimated changes in revenues and outlays associated with that legislation are small, with one exception. CBO estimates that the enactment of the Temporary Extension Act of 2010—which mainly provided around a 1-month extension for certain expiring programs—will increase outlays by \$1 billion for payments to physicians under the Medicare program and by \$7 billion for extended unemployment benefits.

For 2010, the largest increase in estimated outlays, \$11 billion, is for the TARP, resulting mostly from an updated assessment of the cost of assistance to the American International Group (AIG). CBO now estimates that the total cost of the TARP will be \$109 billion, compared with \$99 billion in the January baseline projections. In addition, the estimate of net spending in 2010 for Medicare has been boosted by \$7 billion, mainly because of a recent decision by the Department of Health and Human Services that will reduce payments from states that are used to offset some of the federal government's spending for Medicare's prescription drug program. Partially offsetting the increases in spending for the TARP and Medicare are reductions, of \$8 billion and \$4 billion,

respectively, in projected outlays for federal higher education programs and discretionary programs.

Over the 2011–2020 period, changes in estimated outlays lower the projected cumulative deficit by \$21 billion, a net change dominated by a nearly \$100 billion (or about 3 percent) decrease in projected outlays for Medicaid. However, roughly \$68 billion in additional spending projected for veterans' benefits and services, Medicare, and Social Security offsets more than half of that reduction. The remaining \$11 billion increase in projected outlays is the net result of increases and decreases in spending in a number of other areas of the budget.

CBO reduced its estimate of federal outlays for Medicaid to reflect a change in its expectations about states' policies regarding the program. Recent evidence suggests that the weak economy; projected shortfalls in state budgets; and the December 31, 2010, expiration of the higher federal matching share established under ARRA will lead states to take steps to slow the rate of growth in enrollment and their payments to providers; such actions will reduce federal outlays under this program as compared with the amounts in CBO's January baseline.

In the other direction, CBO has raised its estimate of outlays for veterans' benefits and services by \$21 billion over the 10-year period, mostly to account for additional compensation payments to veterans for certain service-connected disabilities. Projected outlays for Medicare are also up, by a total of \$24 billion over the period, largely as a result of changes in projected enrollment and in the annual growth rate of per capita spending for the prescription drug program. CBO has also raised its estimate of outlays for Social Security by \$23 billion for the 2011–2020 period. That change stems from an increase in the number of beneficiaries and in the average monthly benefit payment expected in the Old-Age and Survivors Insurance program, coupled with a rise in applications in the Disability Insurance program.

**Table 1-7.**

**Changes in CBO's Baseline Projections of the Deficit or Surplus Since January 2010**

(Billions of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011- 2015	Total, 2011- 2020
<b>Total Deficit as Projected in January 2010</b>	<b>-1,349</b>	<b>-980</b>	<b>-650</b>	<b>-539</b>	<b>-475</b>	<b>-480</b>	<b>-521</b>	<b>-525</b>	<b>-542</b>	<b>-649</b>	<b>-687</b>	<b>-3,124</b>	<b>-6,047</b>
Changes to Revenue Projections													
Legislative changes	-1	*	*	*	*	*	*	*	*	*	*	-1	-1
Technical changes	<u>2</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>18</u>	<u>37</u>
<b>Total Changes to Revenues</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>17</b>	<b>36</b>
Changes to Outlay Projections													
Legislative changes													
Mandatory outlays	8	*	*	*	*	*	*	*	*	*	*	*	*
Discretionary outlays	*	*	*	*	*	*	*	*	*	*	*	*	1
Net interest	*	*	*	*	*	*	*	1	1	1	1	1	4
Subtotal, legislative	<u>8</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>5</u>
Technical changes													
Mandatory outlays													
Medicaid	-3	-5	-5	-8	-11	-11	-11	-10	-11	-13	-14	-41	-99
Student loans	-8	*	-3	-3	-3	-3	-3	-3	-3	-3	-3	-13	-26
Medicare	6	6	-2	-3	-1	2	4	4	4	4	5	2	24
Social Security	2	2	2	2	2	2	2	2	2	3	4	9	23
Veterans' benefits and services	5	4	1	1	2	2	2	2	2	2	2	10	21
Unemployment	4	4	0	0	0	0	0	0	0	0	0	4	4
TARP	11	*	*	*	*	*	*	*	*	*	*	*	-1
Other	<u>-1</u>	<u>1</u>	<u>1</u>	<u>-3</u>	<u>1</u>	<u>3</u>	<u>4</u>	<u>4</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>4</u>	<u>17</u>
Subtotal, mandatory outlays	<u>16</u>	<u>13</u>	<u>-7</u>	<u>-14</u>	<u>-11</u>	<u>-6</u>	<u>-2</u>	<u>-1</u>	<u>-4</u>	<u>-4</u>	<u>-3</u>	<u>-24</u>	<u>-39</u>

Continued

**Table 1-7.****Continued****Changes in CBO's Baseline Projections of the Deficit or Surplus Since January 2010**

(Billions of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011- 2015	Total, 2011- 2020
<b>Changes to Outlay Projections (Continued)</b>													
Discretionary outlays	-4	2	*	-1	-1	-1	-1	-1	-1	-2	-1	-2	-8
Net interest													
Debt service	1	2	1	1	1	1	2	3	5	6	9	7	31
Other	<u>1</u>	<u>2</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>-4</u>	<u>-3</u>	<u>-4</u>	<u>-5</u>	<u>-4</u>	<u>8</u>	<u>-11</u>
Subtotal, net interest	2	4	2	4	3	2	-2	1	1	1	5	15	21
Subtotal, technical	13	18	-5	-10	-9	-5	-5	-1	-5	-5	1	-11	-26
<b>Total Changes to Outlays</b>	<b>21</b>	<b>19</b>	<b>-5</b>	<b>-10</b>	<b>-9</b>	<b>-4</b>	<b>-4</b>	<b>-1</b>	<b>-4</b>	<b>-4</b>	<b>1</b>	<b>-10</b>	<b>-21</b>
<b>Total Impact on the Deficit<sup>a</sup></b>	<b>-20</b>	<b>-15</b>	<b>8</b>	<b>14</b>	<b>13</b>	<b>8</b>	<b>8</b>	<b>4</b>	<b>8</b>	<b>8</b>	<b>2</b>	<b>27</b>	<b>57</b>
<b>Total Deficit as Projected in March 2010</b>	<b>-1,368</b>	<b>-996</b>	<b>-642</b>	<b>-525</b>	<b>-463</b>	<b>-472</b>	<b>-513</b>	<b>-521</b>	<b>-534</b>	<b>-641</b>	<b>-684</b>	<b>-3,097</b>	<b>-5,990</b>
<b>Memorandum:<sup>a</sup></b>													
Total Legislative Changes	-9	-1	*	-1	*	-1	-1	-1	-1	-1	-1	-3	-6
Total Technical Changes	-11	-15	8	14	13	9	9	5	9	8	3	29	63

Sources: Congressional Budget Office; Joint Committee on Taxation.

Note: \* = between -\$500 million and \$500 million; TARP = Troubled Asset Relief Program.

a. Negative numbers indicate an increase in the deficit.

**Table 1-8.****CBO's Baseline Budget Projections**

	Actual												Total, 2011-	Total, 2011-
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2015	2020
In Billions of Dollars														
Revenues														
Individual income taxes	915	945	1,258	1,434	1,595	1,729	1,854	1,969	2,091	2,199	2,316	2,448	7,870	18,894
Corporate income taxes	138	148	269	321	352	397	368	390	396	403	406	419	1,707	3,721
Social insurance taxes	891	878	934	993	1,056	1,115	1,165	1,212	1,260	1,310	1,361	1,416	5,262	11,820
Other revenues	161	205	212	219	218	228	242	247	254	262	272	283	1,119	2,437
<b>Total Revenues</b>	<b>2,105</b>	<b>2,176</b>	<b>2,673</b>	<b>2,967</b>	<b>3,221</b>	<b>3,469</b>	<b>3,629</b>	<b>3,818</b>	<b>4,000</b>	<b>4,174</b>	<b>4,355</b>	<b>4,567</b>	<b>15,958</b>	<b>36,872</b>
On-budget	1,451	1,535	2,000	2,256	2,467	2,671	2,793	2,947	3,092	3,229	3,373	3,543	12,187	28,371
Off-budget	654	642	673	711	754	797	836	871	908	945	982	1,024	3,771	8,501
Outlays														
Mandatory spending	2,094	1,969	2,058	1,982	2,063	2,177	2,267	2,412	2,523	2,633	2,834	3,005	10,547	23,955
Discretionary spending	1,237	1,367	1,373	1,345	1,345	1,356	1,372	1,401	1,425	1,449	1,484	1,517	6,790	14,067
Net interest	187	209	238	282	337	399	462	517	573	626	678	729	1,718	4,841
<b>Total Outlays</b>	<b>3,518</b>	<b>3,545</b>	<b>3,668</b>	<b>3,609</b>	<b>3,746</b>	<b>3,931</b>	<b>4,101</b>	<b>4,331</b>	<b>4,521</b>	<b>4,708</b>	<b>4,996</b>	<b>5,251</b>	<b>19,055</b>	<b>42,862</b>
On-budget	3,001	2,988	3,090	3,003	3,110	3,265	3,402	3,595	3,744	3,887	4,127	4,329	15,869	35,552
Off-budget	517	557	579	605	636	666	699	736	777	821	869	922	3,186	7,310
<b>Deficit (-) or Surplus</b>	<b>-1,413</b>	<b>-1,368</b>	<b>-996</b>	<b>-642</b>	<b>-525</b>	<b>-463</b>	<b>-472</b>	<b>-513</b>	<b>-521</b>	<b>-534</b>	<b>-641</b>	<b>-684</b>	<b>-3,097</b>	<b>-5,990</b>
On-budget	-1,550	-1,453	-1,089	-747	-643	-593	-609	-649	-652	-658	-754	-786	-3,682	-7,181
Off-budget	137	85	94	106	118	131	137	136	131	124	113	102	585	1,191
Debt Held by the Public	7,545	9,021	9,862	10,551	11,112	11,606	12,103	12,653	13,222	13,803	14,493	15,226	n.a.	n.a.
<b>Memorandum:</b>														
Gross Domestic Product	14,236	14,595	14,992	15,730	16,676	17,606	18,421	19,223	20,036	20,823	21,667	22,544	83,425	187,719

Continued

Table 1-8.

Continued

## CBO's Baseline Budget Projections

	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011- 2015	Total, 2011- 2020
As a Percentage of Gross Domestic Product														
Revenues														
Individual income taxes	6.4	6.5	8.4	9.1	9.6	9.8	10.1	10.2	10.4	10.6	10.7	10.9	9.4	10.1
Corporate income taxes	1.0	1.0	1.8	2.0	2.1	2.3	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0
Social insurance taxes	6.3	6.0	6.2	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
Other revenues	1.1	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
<b>Total Revenues</b>	<b>14.8</b>	<b>14.9</b>	<b>17.8</b>	<b>18.9</b>	<b>19.3</b>	<b>19.7</b>	<b>19.7</b>	<b>19.9</b>	<b>20.0</b>	<b>20.0</b>	<b>20.1</b>	<b>20.3</b>	<b>19.1</b>	<b>19.6</b>
On-budget	10.2	10.5	13.3	14.3	14.8	15.2	15.2	15.3	15.4	15.5	15.6	15.7	14.6	15.1
Off-budget	4.6	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Outlays														
Mandatory spending	14.7	13.5	13.7	12.6	12.4	12.4	12.3	12.5	12.6	12.6	13.1	13.3	12.6	12.8
Discretionary spending	8.7	9.4	9.2	8.5	8.1	7.7	7.4	7.3	7.1	7.0	6.9	6.7	8.1	7.5
Net interest	1.3	1.4	1.6	1.8	2.0	2.3	2.5	2.7	2.9	3.0	3.1	3.2	2.1	2.6
<b>Total Outlays</b>	<b>24.7</b>	<b>24.3</b>	<b>24.5</b>	<b>22.9</b>	<b>22.5</b>	<b>22.3</b>	<b>22.3</b>	<b>22.5</b>	<b>22.6</b>	<b>22.6</b>	<b>23.1</b>	<b>23.3</b>	<b>22.8</b>	<b>22.8</b>
On-budget	21.1	20.5	20.6	19.1	18.6	18.5	18.5	18.7	18.7	18.7	19.0	19.2	19.0	18.9
Off-budget	3.6	3.8	3.9	3.8	3.8	3.8	3.8	3.8	3.9	3.9	4.0	4.1	3.8	3.9
<b>Deficit (-) or Surplus</b>	<b>-9.9</b>	<b>-9.4</b>	<b>-6.6</b>	<b>-4.1</b>	<b>-3.1</b>	<b>-2.6</b>	<b>-2.6</b>	<b>-2.7</b>	<b>-2.6</b>	<b>-2.6</b>	<b>-3.0</b>	<b>-3.0</b>	<b>-3.7</b>	<b>-3.2</b>
On-budget	-10.9	-10.0	-7.3	-4.8	-3.9	-3.4	-3.3	-3.4	-3.3	-3.2	-3.5	-3.5	-4.4	-3.8
Off-budget	1.0	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.5	0.7	0.6
Debt Held by the Public	53.0	61.8	65.8	67.1	66.6	65.9	65.7	65.8	66.0	66.3	66.9	67.5	n.a.	n.a.

Source: Congressional Budget Office.

Note: n.a. = not applicable.





# The Economy Under the President's Budget and Under CBO's Baseline Policy Assumptions

In addition to estimating the direct budgetary impact of the President's proposals, the Congressional Budget Office has analyzed how those policies would affect the overall economy and thereby, indirectly, the budget.<sup>1</sup> Estimates of economic effects depend on many specific assumptions, and there are several approaches to estimating those effects, so CBO's analysis used different models to try to project economic behavior and the structure of the economy over the next decade.

For 2011 to 2015, the first half of the projection period, CBO's estimates incorporate both supply-side effects (influences on the economy's potential output; that is, the amount of production that corresponds to a high level of resource use) and demand-side effects (temporary movements of actual output relative to potential output). CBO estimates that the President's proposals would raise the nation's real (inflation-adjusted) output relative to that under CBO's baseline assumptions by between 0.9 percent and 1.2 percent, on average, during those years (see Table 2-1).

For 2016 to 2020, CBO's estimates incorporate only supply-side effects, because the magnitude of demand-side effects depends on the state of the economy, which is especially difficult to predict over longer horizons. In addition, the Federal Reserve might offset the demand-side effects of policies that are foreseen well in advance in order to maintain economic stability. CBO estimates that the President's proposals would lower real output relative to CBO's baseline assumptions by between 0.2 percent and 1.4 percent, on average, during those years.

Those economic effects, in both periods, would in turn influence the budget through changes in taxable income, changes in outlays (for unemployment insurance, for example), and changes in the interest rate on government debt, among others. Without accounting for those economic effects, CBO estimates that the President's proposals would add a total of \$1.4 trillion to deficits over the 2011–2015 period and \$2.3 trillion over the 2016–2020 period. CBO estimates that the economic feedback from the President's proposals would reduce the proposals' cumulative cost by between 2 percent and 14 percent from 2011 to 2015 and would increase the proposals' cumulative cost by as much as 6 percent or reduce it by as much as 2 percent from 2016 to 2020. The ranges of possible budgetary effects are quite wide because of the high degree of uncertainty about the economic effects of government policies.

## How the Government's Fiscal Policies Can Affect the Economy

Over the long run, the nation's potential to produce goods and services depends on the size and quality of its labor force, on the stock of productive capital (such as factories, vehicles, and computers), and on the efficiency with which labor and capital are used to produce goods and services.<sup>2</sup> Changes in those determinants of potential output can have a lasting, sustainable influence on the economy's ability to supply goods and services.

As the recent severe recession has shown, economic activity can deviate for substantial periods from its potential level in response to changes in aggregate demand (the

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1. CBO's analysis incorporates the budgetary effects of all of the President's proposals, but it does not include the effect on marginal tax rates of health insurance reform or climate change, because the President's budget does not reflect any specific proposals and thus there is no basis for estimating an effect on tax rates.

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2. Efficiency in turn depends on such factors such as production technology, the way businesses are organized, and the regulatory environment.

**Table 2-1.**

**CBO's Estimates of How the President's Budget Would Affect Inflation-Adjusted Gross National Product**

(Average percentage difference from CBO's baseline, by calendar year)

	2011 to 2015	2016 to 2020
<b>Overall (Supply-Side and Demand-Side) Effects</b>		
Macroeconomic Advisers' Model	0.9	n.a.
Global Insight's Model	1.2	n.a.
<b>Supply-Side Effects Only</b>		
<i>Without Forward-Looking Behavior</i>		
Macroeconomic Advisers' Model	-0.5	n.a.
Global Insight's Model	-0.4	n.a.
Textbook Model		
High (Hours worked respond strongly to tax-rate changes)	*	-0.4
Low (Hours worked respond weakly to tax-rate changes)	-0.3	-0.8
<i>With Forward-Looking Behavior</i>		
Closed-Economy Life-Cycle Model		
Government spending adjusted after 2020	0.1	-0.5
Taxes adjusted after 2020	0.2	-0.2
Open-Economy Life-Cycle Model		
Government spending adjusted after 2020	-0.5	-1.4
Taxes adjusted after 2020	-0.3	-0.9
Infinite-Horizon Model		
Government spending adjusted after 2020	0.1	-0.3
Taxes adjusted after 2020	0.1	-0.2

Source: Congressional Budget Office.

Notes: The "textbook" growth model is an enhanced version of a model developed by Robert Solow. The life-cycle growth model, developed by CBO, is an overlapping-generations general-equilibrium model. The infinite-horizon growth model is an enhanced version of a model first developed by Frank Ramsey. The models of Macroeconomic Advisers and Global Insight, which are available commercially, are designed to forecast short-term economic developments. The various models reflect a wide range of assumptions about the extent to which people are forward-looking in their behavior: In the textbook model and those by Macroeconomic Advisers and Global Insight, people have the least foresight, whereas in the infinite-horizon model, people's foresight is perfect and extends indefinitely to include a full consideration of effects on descendants.

In models with forward-looking behavior, CBO had to make assumptions about how the President's budget would be financed after 2020. CBO chose two alternatives—adjusting government purchases of goods and services and transfer payments or adjusting marginal tax rates.

n.a. = not applicable; \* = between -0.05 and 0.05 percent.

total purchases of a country's output of goods and services by consumers, businesses, governments, and foreigners).<sup>3</sup> Although the economy has begun to recover from the recession, output is well below its potential and unemployment is high. During the recession, housing investment plummeted and consumer demand fell because declines in the value of housing and the stock

market reduced households' wealth, the recession cut personal income, and financial institutions reduced some households' access to credit. Demand stemming from business investment also fell because there was less need to add capacity and because uncertainty about the implications of the near-collapse of the financial markets made businesses reluctant to make commitments.

3. Precipitous changes in supply-side factors, such as the cost of energy, also can trigger temporary economic shifts.

Unlike movements on the supply side of the economy, the effects of factors such as the financial crisis tend to

fade over time. Other fluctuations in the demand for goods and services are likely to occur in the future, but it is impossible to know whether they will be positive or negative, so projections beyond a few years generally assume that the economy will average close to the sustainable potential level determined by supply-side factors.

When aggregate demand is low, as it is currently, government policies such as tax cuts or spending increases can increase demand and thereby hasten a return to the potential level of output. In general, increases in demand cause businesses to gear up production and hire more workers; decreases in demand have the opposite effect. Thus, budgetary policies that raise private and public consumption would boost output toward its potential level. Nevertheless, demand-side effects are generally considered to be only temporary: They raise or lower output beyond what it would be otherwise only for a while because, over time, stabilizing economic forces tend to move output back toward its potential. Moreover, policies that aim to increase demand above its potential—by increasing government purchases or by spurring consumer spending—are likely to decrease national income in the long run because such policies tend to increase government borrowing and eventually reduce the nation's saving and capital stock. Therefore, policies that increase demand often involve a trade-off between boosting economic output in the short run and reducing output in the long run.

The government's budgetary policies also can influence the economy by affecting its supply side—that is, by changing the potential level of output. Changes in tax rates affect people's willingness to work and to save, possibly influencing short-run demand but also affecting sustainable, long-term supplies of labor and capital. Similarly, changes in government spending for goods and services or in government transfers (such as unemployment insurance or Social Security payments) can affect short-run demand but also can increase or reduce people's willingness to work and to save, which affects the long-term size of the labor force and the capital stock. In addition, changes in government spending on goods and services can alter the amount of public investment, which affects sustainable output as well.

The economic effects of government policies that change revenues and spending depend on how those changes are financed. In the short run, reductions in revenues or increases in spending create larger budget deficits. Over

the long term, however, in order to prevent unchecked growth in government debt relative to output, other policy changes are needed to offset lost revenues or increased spending.<sup>4</sup> The nature and magnitude of anticipated future changes in policy can significantly influence the long-term economic effects of the initial change in spending or revenues.

## How the President's Budgetary Proposals Would Affect the Economy

The President's budgetary proposals would influence the economy through both demand and supply effects.

### Demand-Side Effects

The President's proposals would increase spending and lower taxes relative to CBO's baseline projections. The resulting demand-side effects would tend to raise output over the 2011–2015 period. Lower tax payments and increased transfers to people imply that disposable income would increase, thus encouraging consumers' demand for goods and services, while increases in the government's purchases of goods and services would add to demand directly.

### Supply-Side Effects

Supply-side effects consist of influences on the size and composition of the capital stock, the quantity and quality of the labor force, and the pace of the nation's technological progress. Each of those supply-side effects helps determine the course of potential economic output. The supply-side effects of the President's policies could either raise or lower output between 2011 and 2015, CBO estimates, and would probably lower output between 2016 and 2020. Those effects stem primarily from two factors:

- The policies in the President's budget would result in a smaller stock of domestically owned capital, mainly as a consequence of increased deficits relative to those projected under current law. That effect becomes stronger over time as budget deficits accumulate.

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4. If a policy changes spending and revenues in a way that increases the deficit, the resulting shortfall will compound over time as the government's interest payments rise. Unless the government creates an offsetting policy, the ratio of debt to output will be driven ever higher (under the assumption, which CBO's analysis incorporates, that the rate of interest on government debt is higher than the rate of economic growth).

- The proposed policies would result in an increase in the supply of labor because they reduce the average effective marginal tax rate on labor overall (although only lower- and middle-income taxpayers would see a sizable reduction).

**Effects on the Nation's Capital Stock.** The President's budgetary policies would influence the size of the nation's capital stock primarily by affecting national saving, which consists of private saving plus public saving (the surpluses, if any, of state, local, and federal governments). A federal deficit represents a reduction in public saving and, therefore, in national saving. Federal policies also can affect private saving—saving by households or businesses. Increases in private saving raise national saving, and decreases diminish national saving. An overall decline in national saving reduces the capital stock owned by U.S. citizens over time through a decrease in domestic investment, an increase in net borrowing from abroad, or both.

The largest consequences of the President's proposals on national saving come through their effect on the federal budget deficit. Each year between 2010 and 2020, the proposals would expand the federal deficit relative to that in CBO's baseline, which would reduce national saving, other things being equal.

The President's tax proposals also would alter effective marginal tax rates on capital income (income derived from wealth, such as stock dividends, realized capital gains, or the owner's profits from a business) and thus the after-tax rate of return on saving, which also could influence private saving.<sup>5</sup> In CBO's estimation, the tax proposals would reduce the effective marginal federal tax rate on capital income substantially in 2010, primarily because of the extension of bonus depreciation for certain types of property.<sup>6</sup> The tax proposals would reduce that rate by a smaller amount in 2011 and, compared with rates under

current law, they would raise or lower the rate by minor amounts between 2012 and 2020.<sup>7</sup>

Bonus depreciation expired at the end of 2009, and CBO calculates that change raised the effective marginal tax rate on capital from 11.5 percent in 2009 to 13.2 percent in 2010 (see Table 2-2).<sup>8</sup> Those rates reflect corporate and individual income taxes and taxes on capital income from corporate and noncorporate businesses and owner-occupied housing. The President's proposal to extend bonus depreciation for one year would lower the marginal tax rate for that year by undoing the 2010 increase that would occur under current law. In 2010, CBO estimates, the proposals would result in a large (2.1 percentage point) decrease in the tax rate on capital relative to the rate prevailing under current law, which could have large or small effects on saving in that year, depending on how people respond.<sup>9</sup> However, even the upper end of reasonable estimates for the effect on saving would imply relatively small consequences for the capital stock and output of the economy because that effect would be limited to one year.

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5. The effective marginal tax rate on capital income is the rate that would apply to the return on additional investment. That rate is averaged across all the businesses, people, and institutions that would receive that investment income (and that could face different tax rates).
  6. Bonus depreciation allows businesses to immediately deduct from taxable income a portion of any investment made in equipment.

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7. For a description of CBO's method for estimating effective tax rates, see Congressional Budget Office, *Computing Effective Tax Rates on Capital Income*, Background Paper (December 2006).
  8. The effective tax rates on capital are below all but the lowest statutory marginal rates because some capital income (for example, interest income that flows into tax-free savings accounts or pension funds and imputed rental income from owner-occupied housing) is not taxed.
  9. By increasing after-tax returns on saving in 2010, the tax proposals would influence private saving in two opposing ways: Higher after-tax returns would tend to increase saving and thus reduce consumer spending, but they also would boost the value of existing assets, making households wealthier and thus tending to encourage spending. On balance, the combined effect on spending of higher after-tax returns can be positive or negative, and researchers generally conclude that the effect is small. Nevertheless, to include various possibilities, CBO included in its analysis a range of plausible assumptions about how households might respond to changes in the after-tax return on saving. At one end of the range, some of CBO's models assumed that the rate would have little or no effect on how households allocated income between spending and saving; at the other end, some models assumed that raising the rate of return would boost saving and reduce spending significantly.

**Table 2-2.****CBO's Estimates of Effective Federal Marginal Tax Rates on Capital Income**

(Percent)

Calendar Year	Tax Rate Under Current Law	Tax Rate Under the President's Budget	Difference	
			Percentage Points	Percent
2009	11.5	11.5	0	0
2010	13.2	11.2	-2.1	-15.5
2011	15.1	14.9	-0.2	-1.3
2012	15.5	15.5	*	0.2
2013	15.8	15.8	0.1	0.4
2014	16.0	16.0	*	0.1
2015	16.1	16.1	*	-0.2
2016	16.1	16.1	*	-0.2
2017	16.2	16.2	*	-0.1
2018	16.3	16.2	-0.1	-0.4
2019	16.3	16.3	*	-0.3
2020	16.3	16.3	*	*

Source: Congressional Budget Office.

Notes: The effective marginal tax rate on income from capital is the share of the last dollar of such income taken by federal individual income and corporate taxes.

\* = between -0.05 and 0.05 percent.

Other proposals would have a similar effect in 2011. In that year, the lower tax rates on ordinary income set in the Economic Growth and Tax Relief Reconciliation Act of 2001 and the lower rates on dividends and capital gains established by the Jobs and Growth Tax Relief Reconciliation Act of 2003 are set to expire under current law. As a result, tax rates would rise to those that prevailed before EGTRRA and JGTRRA, thus increasing the marginal rate to about 15 percent. The President's proposals to extend some of EGTRRA's rates and to moderate the increase in tax rates on dividends would undo some of that increase, reducing the effective marginal tax rate on capital relative to the rate under current law.

Those reductions would be largely offset by other changes that would tend to increase the effective marginal rate, however. One proposal would limit the rate at which itemized deductions reduce taxes. That proposal would lessen the value of the mortgage interest deduction, in turn raising the effective tax rate on investing in owner-occupied housing. Several of the President's proposals that would increase tax payments by businesses also would tend to raise the effective tax rate on investment. Important contributors to that increase are the Financial Crisis Responsibility Fee, changes to accounting for inventories, and the repeal of tax incentives for fossil fuels.<sup>10</sup>

The proposals would reduce the effective tax rate on capital by about 0.2 percentage points in 2011, CBO estimates. After 2011, when all provisions have fully taken effect, the President's proposals, on net, would alter the effective marginal tax rate on capital by less than 0.1 percentage point—sometimes increasing it slightly, sometimes decreasing it slightly (see Table 2-2). Because the net effect would be small, it would probably not significantly influence private saving or the capital stock after 2011.

Taking into account all of those effects, CBO estimates that the policies in the President's budget would result in a smaller stock of domestically owned capital, mainly as a consequence of increased deficits, than would be expected on the basis of CBO's baseline.

In addition to affecting the overall effective marginal tax rate on capital, the President's proposals would lessen disparities between tax rates on different types of capital, thus increasing economic efficiency and raising output. Under current law, new investment in C corporations

10. The President's proposals to reform the international tax system have been omitted from calculations of effective marginal tax rates. CBO uses those tax rates to assess the impact of proposals on the domestic economy, and the impact of the proposals on the domestic economy is very uncertain.

faces the highest tax rates, new investment in noncorporate businesses faces lower rates, and new investment in owner-occupied housing faces a small negative tax rate (that is, it is eligible for a tax subsidy).<sup>11</sup> The President's budgetary proposals would reduce the positive rates on both types of businesses and raise the rate on owner-occupied housing, all by modest amounts. That leveling of taxation on alternative investments would slightly increase the efficiency with which investment is allocated to projects with the highest economic return. CBO incorporates in its projections an estimate of how much that effect would increase economic output (see Appendix A). The estimated positive effect is much smaller than the negative effect of reduced national saving.

**Effects on the Labor Force.** Potential output is strongly tied to the amount and quality of labor supplied in the economy. A sustained long-term increase in total hours worked or in the capability of the labor force improves the economy's potential to generate output. CBO's analysis focused on channels through which the President's proposals could affect the number of hours of labor supplied because the evidence for those channels is stronger than is the evidence for channels through which government policies can affect the quality of labor.

The President's proposals could affect the quantity of labor in two main ways. First, several of the policies proposed would *change people's overall after-tax income but not their after-tax compensation for each additional hour of work*. Increases in transfer payments, such as Pell grants and payments for health care, would raise the disposable income of some people but would not affect their marginal tax rates. In the absence of a change in marginal rates, an increase in after-tax income tends to reduce the number of hours of labor supplied because people can maintain their standard of living with less work; conversely, a decline in income tends to increase hours supplied.

Second, some provisions would *change both after-tax income and after-tax compensation for each additional hour of work*. For example, the extension of the lower marginal tax rates on income that were enacted in EGTRRA for lower- and middle-income taxpayers would increase both after-tax income and after-tax compensation per hour.

11. C corporations are subject to the corporate income tax.

Provisions that raised after-tax income and incremental after-tax compensation (and provisions that reduced both) would have opposing effects on people's incentives. In the case of extending lower tax rates on lower- and middle-income workers, for example, the affected workers would be encouraged to work longer hours because they would earn more for each extra hour of labor they supplied. But a disincentive also exists: Those same workers would earn more after-tax income at their current working hours, which would encourage them to decrease their work hours.

For most people, the opposing incentives from reducing marginal tax rates largely offset one another, although most economists conclude that, on average, the positive effects of greater after-tax earnings for each additional hour worked slightly outweigh the negative effects of higher after-tax income from current working hours. Responses to changes in tax rates can also vary among family members, with secondary earners (for example, the spouse of a household's primary breadwinner) generally responding to a greater extent than primary earners.<sup>12</sup> All told, reductions in marginal tax rates will tend to increase modestly the hours of labor that workers supply, and increases in marginal tax rates will modestly decrease hours worked.

CBO estimates that, if enacted, the President's policies would reduce the overall marginal tax rate on labor by 1.3 percentage points in 2010 and by 1.6 to 1.9 percentage points over the 2011–2020 period (see Table 2-3). The President's proposals would reduce the effective marginal tax rate on labor primarily by eliminating some of the currently scheduled increases in tax rates. The effective marginal tax rate on labor averaged 28.4 percent in 2009, CBO estimates, reflecting both the federal individual income tax and payroll taxes. Under current law,

12. See Congressional Budget Office, *Labor Supply and Taxes*, CBO Memorandum (January 1996). Since that memorandum was published, CBO has revised downward its estimates of total wage elasticity and substitution elasticity for secondary earners because of evidence that their responsiveness has declined over time as their participation in the labor force has grown. (The highest-earning member of each household is the primary earner; other household members with earnings are secondary earners). Also see Francine D. Blau and Lawrence M. Kahn, "Changes in the Labor Supply Behavior of Married Women: 1980–2000," *Journal of Labor Economics*, vol. 25, no. 3 (2007), pp. 393–438.

**Table 2-3.****CBO's Estimates of Effective Federal Marginal Tax Rates on Labor Income**

(Percent)

Calendar Year	Tax Rate Under Current Law	Tax Rate Under the President's Budget	Difference	
			Percentage Points	Percent
2009	28.4	28.4	0	0
2010	29.9	28.5	-1.3	-4.5
2011	30.6	29.1	-1.6	-5.2
2012	31.1	29.3	-1.7	-5.6
2013	31.2	29.5	-1.7	-5.6
2014	31.5	29.8	-1.7	-5.5
2015	31.7	30.0	-1.7	-5.3
2016	31.9	30.2	-1.7	-5.5
2017	32.0	30.3	-1.7	-5.4
2018	32.2	30.4	-1.8	-5.7
2019	32.3	30.4	-1.9	-5.9
2020	32.5	30.6	-1.9	-5.8

Source: Congressional Budget Office.

Note: The effective marginal tax rate on income from labor is the share of the last dollar of such income taken by federal individual income and payroll taxes.

that rate goes up to 29.9 percent in 2010 largely because of the expiration at the end of 2009 of the temporary increase in the amount of income that was exempt from the alternative minimum tax (AMT). The rate is expected to rise again to 30.6 percent in 2011 as EGTRRA's provisions expire. The President's budget would make the temporary increase in the AMT exemption permanent and index the AMT for inflation, thus reducing the tax rate substantially in 2010 and subsequent years. The President's jobs initiatives would also reduce the effective tax rate in 2010. Moreover, except for reductions in the top income tax rates, the President also proposes to extend almost all of the provisions of EGTRRA beyond 2010, further reducing the average marginal tax rate on labor for 2011 and beyond.

Although the President's proposals would reduce the average effective marginal tax rate on labor overall, only lower- and middle-income taxpayers would see a sizable reduction. The proposals would not reduce the top marginal tax rates faced by higher-income taxpayers (relative to current law), and the provision to limit the tax savings from itemized deductions would slightly increase the marginal tax rates faced by that group. CBO's analysis therefore incorporated different effective tax rates on labor income for people in three broad classes of income.

In addition to affecting tax rates on labor income, the proposals' impact on the capital stock also could affect the supply of labor. Because higher deficits under the proposals would crowd out capital, pretax wage rates would be lower than those under current law (all else being equal), weakening people's incentives to work.

Improvements in the amount of education, training, and experience that workers have and in how hard they work—all of which improve the quality of each hour worked—could result in higher potential output. Although the President proposes steps to improve education, training, and health, CBO did not incorporate into this analysis the effects of such initiatives on labor quality because they are quite difficult to quantify.

**Effects on Technological Progress.** New and improved processes and products are the source of most long-term growth in productivity, and some of the President's budgetary proposals (such as the extension of tax credits for research and development) could affect the economy by influencing the rate at which technological progress is made. Researchers, however, understand little about how taxation and spending policies affect such innovation. Therefore, for the most part, CBO has not incorporated

into its analysis effects on technological progress that might arise from the President's proposals.<sup>13</sup>

## Economic Models and Results

CBO used five economic models to estimate the effects of the President's budgetary proposals relative to the current-law policy assumptions that underlie CBO's baseline. The models focus on somewhat different aspects of the economy and reflect distinct ways of thinking about it. Three of the models estimate supply-side effects only; the other two are commercial macroeconomic models that emphasize the cyclical aspects of economic activity and are designed primarily to analyze demand-side effects, although they incorporate some supply-side influences as well. Each model represents people's economic decisions—in particular, the degree to which individual people anticipate future developments—in an idealized way that does not capture all aspects of actual behavior. Even so, the results provide a reasonable range of estimated responses to changes in policy.

### Demand-Side Effects and Supply-Side Effects Together

CBO analyzed the combined demand- and supply-side effects of the President's budgetary proposals using macroeconomic forecasting models created by two private forecasting companies—Macroeconomic Advisers and IHS Global Insight. Each model concentrates on demand-side effects but also includes a model of potential output that incorporates some supply-side effects; for example, additional investment is assumed to raise potential output by increasing the capital stock.

**Estimated Economic and Budgetary Effects Between 2011 and 2015.** The Macroeconomic Advisers' model predicted that the demand- and supply-side effects of the President's proposed policies would raise real gross national product (GNP) by 0.9 percent, on average,

13. IHS Global Insight's model, one of those used by CBO, assumes that potential gross domestic product responds positively to spending for research and development—which would be stimulated by the President's proposal to extend tax credits for such activities. For additional information on how government policies could influence technological progress, see Congressional Budget Office, *R&D and Productivity Growth*, CBO Background Paper (June 2005) and Robert W. Arnold, *Modeling Long-Run Economic Growth*, Congressional Budget Office Technical Paper 2003-4 (June 2003).

between 2011 and 2015 (see Table 2-1 on page 24).<sup>14</sup> Global Insight's model forecast an increase of 1.2 percent. Those estimates result from projected *increases* in output from demand-side effects, offset in part by *decreases* in output stemming from supply-side effects. In particular, the Macroeconomic Advisers' model projected that the supply-side effects of the President's proposals would decrease real output by 0.5 percent over the 2011–2015 period, on average; Global Insight's model projected a slightly smaller decrease of 0.4 percent.

The projected overall (demand-side and supply-side) economic effects would feed back to the budget and affect the size of the projected deficit—but using the estimated economic effects from the two models yields very different estimates of the budgetary effects. Using economic estimates from Macroeconomic Advisers' model, CBO estimates that the proposals' budgetary feedback would reduce the cumulative deficit by \$27 billion over the 2011–2015 period. In contrast, economic estimates from Global Insight's model produce estimated feedback effects that would reduce projected deficits by \$202 billion (see Table 2-4). The estimates differ largely because of contrasting assumptions about the effects of the President's policies on interest rates. Macroeconomic Advisers' model projects a greater increase in inflation from increased demand under the President's proposals than does Global Insight's model. Therefore, to hold inflation down, the Federal Reserve is assumed to raise interest rates more in Macroeconomic Advisers' model. Higher interest rates imply greater interest payments on the federal debt. Higher rates also tend to decrease revenues because they can shift income from higher-taxed categories (such as profits) to relatively lower-taxed categories (such as interest income).

14. For this analysis, CBO uses GNP (the total market value of goods and services produced in a given period by labor and capital supplied by the country's residents, regardless of where the labor and capital are located) as its measure of output instead of the more commonly cited gross domestic product. Changes in GNP exclude foreigners' earnings on investments in the domestic economy but include domestic residents' earnings overseas and are therefore a better measure of the proposals' effects on domestic residents' income than are changes in gross domestic product in an open economy like that of the United States. CBO's budget calculations for this analysis reflect the fact that tax treaties and other factors result in some foreign income effectively being untaxed.



**Table 2-4.****The Budgetary Implications of the Macroeconomic Effects**

(Cumulative change from CBO's estimate of the President's budget, in billions of dollars)

	2011 to 2015	2016 to 2020
<b>Overall (Supply-Side and Demand-Side) Effects</b>		
Macroeconomic Advisers' Model	27	n.a.
Global Insight's Model	202	n.a.
<b>Supply-Side Effects Only</b>		
<i>Without Forward-Looking Behavior</i>		
Textbook Model		
High (Hours worked respond strongly to tax-rate changes)	5	-51
Low (Hours worked respond weakly to tax-rate changes)	-39	-133
<i>With Forward-Looking Behavior</i>		
Closed-Economy Life-Cycle Model		
Government spending adjusted after 2020	14	-79
Taxes adjusted after 2020	30	-6
Open-Economy Life-Cycle Model		
Government spending adjusted after 2020	-13	-52
Taxes adjusted after 2020	21	38
Infinite-Horizon Model		
Government spending adjusted after 2020	19	-17
Taxes adjusted after 2020	23	9

Source: Congressional Budget Office.

Notes: Numbers in this table reflect the effects on the cumulative deficit or surplus of the economic effects shown in Table 2-1. (Negative numbers indicate an increase in the deficit; positive numbers indicate a reduction.) They do not include CBO's estimate of the budgetary impact of the President's proposals in the absence of those economic effects (shown in Table 1-3).

The "textbook" growth model is an enhanced version of a model developed by Robert Solow. The life-cycle growth model, developed by CBO, is an overlapping-generations general-equilibrium model. The infinite-horizon growth model is an enhanced version of a model first developed by Frank Ramsey. The models of Macroeconomic Advisers and Global Insight, which are available commercially, are designed to forecast short-term economic developments. The various models reflect a wide range of assumptions about the extent to which people are forward-looking in their behavior: In the textbook model and those by Macroeconomic Advisers and Global Insight, people have the least foresight, whereas in the infinite-horizon model, people's foresight is perfect and extends indefinitely to include a full consideration of effects on descendants.

In models with forward-looking behavior, CBO had to make assumptions about how the President's budget would be financed after 2020. CBO chose two alternatives—adjusting government purchases of goods and services and transfer payments or adjusting marginal tax rates.

n.a. = not applicable.

**Methodology for Estimating Effects.** CBO explored the relative magnitude of the demand- and supply-side effects of the proposed policies by adjusting monetary policy responses in the models. For one set of scenarios, CBO assumed that the Federal Reserve would not respond to stimulative fiscal policies during the next year or so because output is far below potential, but that in the second half of 2011, the Federal Reserve would begin to respond according to a version of the "Taylor rule" in

which the target interest rate depends on the gap between the actual and desired rate of inflation and the gap between actual and potential output. The degree to which interest rates follow that version of the Taylor rule is assumed to strengthen as output rises toward potential, with the response returning to normal after two years. For a second set of scenarios, CBO assumed that the Federal Reserve would respond in such a way as to hold the unemployment rate to that projected in CBO's baseline

forecast. The second approach produced estimates of the implications of the proposals for potential (nonscyclical) GNP—in other words, the supply-side effects. Subtracting the second set of results from the first provides estimates of the demand-side effects of the proposed policies.<sup>15</sup> CBO analyzed demand-side effects of the President's budgetary proposals only for the first five years of the 2011–2020 period because the magnitude of those effects depends on the state of the economy, which is especially difficult to predict for longer periods, and because the Federal Reserve might offset the demand-side effects of policies that are foreseen well in advance to maintain economic stability.

CBO adjusted the models to incorporate its own estimates of how people would alter the hours they worked in response to the changes in marginal tax rates on labor income that are implied by the President's proposals. The models themselves incorporate responses to the President's proposals that affect marginal tax rates on capital.

The models created by Macroeconomic Advisers and Global Insight are not forward-looking; that is, they do not represent people behaving as though they have specific expectations about future policies or economic developments. That condition implies that specific policy changes that are scheduled to occur will not affect current behavior unless special adjustments are made to mimic such behavior.<sup>16</sup> For example, the President's proposals would reduce taxes throughout the projection period. Those lower taxes would increase the amount of after-tax income that people expect in the future, which might cause them to boost their spending now. In Macroeconomic Advisers' and Global Insight's models, however, those changes in taxes affect consumer spending only when the changes occur.

15. The use of monetary policy to model supply-side effects is only an approximation because changes in monetary policy yield changes in interest rates that are not completely analogous to supply-side effects.

16. One such adjustment made by CBO for the current analysis is to assume that stock prices immediately incorporate the effects of extending lower tax rates on income earned from capital gains and dividends, even though the extension would not affect rates until after 2010.

### Supply-Side Effects Only

CBO used three growth models to analyze the supply-side effects of the President's proposals from 2011 through 2020.<sup>17</sup> The models—a “textbook” growth model, a life-cycle growth model, and an infinite-horizon growth model—differ mainly in their assumptions about how far into the future people look in making plans (see Appendix B for a more detailed description of those models).

Applying those models, CBO obtained the following results:

- The textbook growth model indicated that the effect of the President's proposals on real GNP over the 2011–2015 period would range from essentially no change to a decrease of 0.3 percent, on average. From 2016 to 2020, the President's proposals would reduce GNP by 0.4 percent to 0.8 percent (see Table 2-1 on page 24).
- The life-cycle model projects effects that range from an increase in real GNP of 0.2 percent to a decrease of 0.5 percent over the 2011–2015 period, depending on assumptions about the flows of foreign capital. Over the 2016–2020 period, GNP would be reduced by 0.2 percent to 1.4 percent.
- The infinite-horizon model projects that the President's proposals would increase real GNP by 0.1 percent between 2011 and 2015 and would decrease GNP by 0.2 percent or 0.3 percent over the 2016–2020 period.

Those economic effects could either increase or decrease the budget deficits projected under the President's proposals.

**The Textbook Growth Model.** The textbook growth model assumes, in effect, that people do not consider expected future policies when they make plans—that is, like Macroeconomic Advisers' and Global Insight's models, the textbook growth model incorporates no forward-looking behavior. Moreover, it does not account for the

17. Growth models are often called supply-side models. They assume that the labor market is always in equilibrium and thus that overall fiscal policy has no effect on the unemployment rate.

way that changes in marginal tax rates on capital income might influence saving and investment.

CBO used the textbook growth model to estimate effects under two assumptions about how much people would adjust their work hours in response to changes in marginal tax rates: a “high” assumption, under which workers’ response is on the high side of the consensus range of empirical estimates from studies based on one-year changes in labor supply, and a “low” assumption, under which workers respond very little.<sup>18</sup> CBO determined that under the high assumption, the proposals would have little effect on output. Under the low assumption, the President’s proposals would decrease real GNP by 0.3 percent, on average, over the 2011–2015 period. From 2016 to 2020, the President’s proposals would reduce GNP by 0.4 percent under the high assumption or by 0.8 percent under the low assumption (see Table 2-1 on page 24). The effects estimated by the textbook growth model become more negative over time with the accumulation of the effects of increased deficits on the capital stock.

**The Life-Cycle and Infinite-Horizon Models.** In contrast to the textbook growth model, the life-cycle and infinite-horizon models are built on the assumption that people adjust their decisions about work, spending, and saving both in response to changes in marginal tax rates and after-tax rates of return and in anticipation of future changes in policy.

In particular, the life-cycle model incorporates the assumption that people make lifelong plans for working and saving but do not consider events that might occur after they die. The infinite-horizon model assumes that people behave as if they will live forever—or, what is effectively the same thing for their decisions, that they care about the well-being of their descendants as well as their own. Moreover, the life-cycle and infinite-horizon models assume that people know with certainty how the government will resolve its long-term budget imbalance, whether by raising tax rates, cutting spending, or implementing some combination of the two. Both the life-cycle and the infinite-horizon models assume that households face uncertainty about future wages and

could become credit constrained (that is, unable to borrow to maintain their spending) if their wages declined significantly.<sup>19</sup>

The forward-looking characteristics of the life-cycle and infinite-horizon growth models necessitate assumptions about what people believe will happen in the future, not only during the 10-year projection period but into the indefinite future as well. For its analysis, CBO assumed that people believe that the budgetary policies being assessed—those of the President or of CBO’s baseline—will be maintained for the duration of the 10-year projection period. (In reality, people may well believe that the policies might change at some point during that time.)

For the years after 2020, however, matters are complicated by the fact that the policies reflected both in CBO’s baseline and in the President’s proposals are unsustainable in the long run, owing to projected increases in spending for health and retirement programs.<sup>20</sup> To address that difficulty, CBO assumed that people expect the fiscal imbalances projected under current law to be resolved over the long run. It then made explicit assumptions about the manner in which changes in deficits or surpluses under the President’s budgetary policies, relative to those in CBO’s baseline, would eventually be reflected in spending and taxes. The life-cycle and infinite-horizon models were each used to generate two sets of estimates based on different assumptions about future changes in spending and taxes. Under one assumption, people believe that the proposals will be financed by gradually adjusting government spending (as shares of GNP) for goods and services and for transfer payments over the period from 2021 to 2030. Under the other assumption, people believe that the proposals will be financed by gradually adjusting marginal tax rates over the same period.

Under either assumption about financing, the infinite-horizon model projects that the President’s proposals would increase real GNP by 0.1 percent between 2011

18. CBO’s estimates used data from a large sample of taxpayers to account for the effects of changes in marginal tax rates and in after-tax income under the President’s proposals. The models incorporated a larger response to changes in marginal tax rates among secondary earners than among primary earners.

19. The incorporation of uncertainty and credit constraints has an important effect on the infinite-horizon model: Unlike models that are similar but assume certainty and no constraints on borrowing, increases in disposable income from government policies can influence people’s behavior, even if people expect the policies to be fully offset in the future.

20. See Congressional Budget Office, *The Long-Term Budget Outlook* (June 2009).

and 2015. Depending on the assumption about financing, the model projects decreases in GNP of 0.3 percent or 0.2 percent over the 2016–2020 period.

The life-cycle model projects similar effects on output under the assumption that the economy is closed to flows of foreign capital. Under that assumption, the life-cycle model projects that real GNP would be raised by 0.1 percent or 0.2 percent over the 2011–2015 period and would be reduced by between 0.2 percent and 0.5 percent over the 2016–2020 period. Under the assumption that the economy is open to flows of foreign capital, the life-cycle model projects a decrease in GNP of 0.3 percent to 0.5 percent over the 2011–2015 period and a decrease in GNP of 0.9 percent to 1.4 percent over the 2016–2020 period.

The effects of the President's proposals are more negative under the assumption of an open economy, largely because the reduction in domestically owned capital is greater. Under an assumption of a closed economy, the crowding out of capital by increased deficits raises interest rates, which in turn encourages private saving, offsetting some of the effect of increased deficits. Under an assumption of an open economy, by contrast, interest rates are assumed always to be equal to rates worldwide,

unaffected by domestic policies, so there is no corresponding offsetting effect. The U.S. economy probably lies somewhere between the open- and closed-economy assumptions used in the life-cycle model. It is open to capital flows, but it also is large enough to influence world interest rates and wage rates.<sup>21</sup>

The supply-side effects of the President's proposed policy changes would feed back to the budget (see Table 2-4 on page 31). CBO projects that, over the 2011–2015 period, such economic feedback could add as much as \$39 billion to the cumulative cost of the proposals or subtract as much as \$30 billion from it, depending on which assumptions are used in the analysis. For the period from 2016 to 2020, economic feedback could add as much as \$133 billion to the increase in the deficit or subtract as much as \$38 billion from it. No single number is likely to provide an accurate measure of the effects of economic feedback, but the numbers presented here illustrate the range of probable magnitudes.

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21. The infinite-horizon model assumes a closed economy. The textbook growth model and the models of Macroeconomic Advisers and Global Insight make assumptions that are effectively intermediate between the life-cycle model's open- and closed-economy assumptions.

# The Potential Economic Effects of Selected Proposals in the President's 2011 Budget

**C**onsiderable uncertainty surrounds the possible economic effects of three of the President's budgetary proposals for 2011. The proposals would extend lower tax rates on dividends and capital gains for most taxpayers beyond 2010, increase the use of tax-favored savings for retirement, and reduce estate and gift taxes. The factors the Congressional Budget Office (CBO) considered and the methods it used in assessing those effects are explained below. (CBO's analysis of the overall economic effects of the President's budgetary proposals is described in Chapter 2.)

There also is considerable uncertainty about the economic consequences of the President's health and climate change proposals that stems not only from questions about how the economy would respond, but from the fact that the proposals are not fully specified.

## Extend the Lower Tax Rates on Dividends and Capital Gains

Enactment of the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA) reduced through 2008 the tax rates on dividends and long-term capital gains. Until the end of 2007, those rates comprised a bottom bracket of 5 percent and a top bracket of 15 percent; in 2008, the bottom bracket dropped to zero. The Tax Increase Prevention and Reconciliation Act of 2005 extended the zero and 15 percent rates through 2010.

Before JGTRRA was enacted, dividends had long been taxed at the same rates as other income, and capital gains had long been taxed at lower rates. In 2011, the tax rates on dividends, capital gains, and most other sources of income are scheduled to return to the rates that prevailed in 2000. Tax rates on dividends and other ordinary income will range from 15 percent to 39.6 percent,

depending on the taxpayer's income. Capital gains are scheduled to be taxed at 10 percent or 8 percent for lower-income taxpayers and 20 percent or 18 percent for higher-income taxpayers.

In his 2011 budget, the President has proposed making permanent the zero and 15 percent rates on dividends and capital gains for couples filing jointly with income of up to \$250,000 and for other taxpayers with income of up to \$200,000. For taxpayers with income above those limits, the President proposes a tax rate of 20 percent on dividends and capital gains.

Lower rates on capital gains and dividends reduce the overall taxation of corporate profit, some of which is taxed twice: once under the corporate income tax and again when people receive dividends and realize capital gains—brought about by a business's reinvestment of its profits—on sales of stock. Lowering the tax rates on the two types of income would reduce the total rate of capital taxation.

In addition to decreasing tax rates on corporate income, JGTRRA reduced taxes on some income from capital that is currently taxed only once. A substantial portion of taxable capital gains arises from investments whose earnings are not subject to the corporate income tax, such as gains on real estate held by individual people. The lower capital gains tax rate also reduced taxation on those investments.

Many types of productive capital, such as factories and vehicles, are sufficiently long-lived that investments in them today will continue to earn returns long after JGTRRA's rate changes are scheduled to expire. Permanently extending those rates would enhance the incentive

to invest in long-lived capital by increasing the expected after-tax returns.

The proposed permanent extension of JGTRRA's reduction in the tax rates on dividends and capital gains would reduce the cost of financing for businesses relative to that cost under current law. Businesses should be able to pay investors less before taxes to yield the same after-tax return. But how much the cost of capital might fall is unclear. Some analysts assert that only the decrease in taxes on capital gains will act to reduce that cost. Others hold that the decrease in taxes on dividends will also reduce the cost of capital.<sup>1</sup>

A related difference of views among analysts involves how much the value of businesses' stock might rise if the lower rates of taxation became permanent. (Share values rise because the decrease in taxes increases the after-tax return to shareholders, making the investments more valuable to them.) The view of corporate finance that predicts a relatively large increase in those values predicts a relatively small decrease in the cost of capital, and vice versa.

Higher values for shares of stock raise the net wealth of shareholders and encourage more spending on goods and services; that is the so-called wealth effect. Through that channel, the President's proposal would boost overall demand in the short run. But the more the proposal enhanced demand by raising consumer spending in the short run, the more it would reduce national saving, investment, and thus national income, in the long run.

1. Economists do not agree about how the taxation of dividends affects the economy. Two views prevail: The first ("traditional") view holds that reducing the tax on dividends lowers the cost of capital and increases investment. In the short run, stock prices rise because expected after-tax returns to investors increase. But, over time, the additional investment drives back down the pretax return to capital, so the effect on stock prices is temporary. The second ("new") view holds that reducing the tax on dividends permanently raises the value of a business, and therefore its stock price, but leaves unaffected both the cost of capital and investment by the business. For an overview of those issues, see Alan Auerbach, "Taxation and Corporate Financial Policy," in Alan Auerbach and Martin Feldstein, eds., *Handbook of Public Economics*, vol. 3 (Amsterdam: North-Holland, 2003); Roger Gordon and Martin Dietz, *Dividends and Taxes*, Working Paper 12292 (Cambridge, Mass.: National Bureau of Economic Research, June 2006); and George R. Zodrow, "On the 'Traditional' and 'New' Views of Dividend Taxation," *National Tax Journal*, vol. 44, no. 4, part 2 (December 1991), pp. 497–509.

The enactment of JGTRRA provided an opportunity to examine how changes in taxes on dividends affect a business's value. Some researchers have found evidence that the reductions in dividend taxes raised stock prices.<sup>2</sup> Other researchers have identified no statistically significant effects on the value of the total U.S. stock market, but their work does not rule out the possibility of a modest positive effect.<sup>3</sup>

In the absence of a consensus about which view is correct, CBO has adopted middle-ground estimates of the effects of the President's proposals on the cost of capital for firms and on the value of shares.

Compared with current law, under which JGTRRA is scheduled to expire in 2011, the extension proposed by the President would moderate the disadvantage confronted by the corporate sector in competing for capital. For example, although some income from the corporate sector is taxed twice under current law, income from unincorporated businesses is taxed only at the personal level, and income from owner-occupied housing—that is, the value of the housing "services" consumed by the owner—is not taxed at all by the federal government. That disparity in tax treatment could lead to less investment in the corporate sector than is optimal for economic output. Lowering the taxes that corporations face would allow them to attract additional capital from the housing and small-business sectors and could thus improve the economy's efficiency. Such a shift in investment might, however, conflict with other policy goals, such as supporting unincorporated businesses.

The proposal to extend the lower rates on dividends and capital gains also could affect commercial financial behavior in two ways: Businesses could choose to finance more investment by issuing stock (equity financing) rather than debt, and they could decide to pay out more in dividends and retain fewer earnings. Businesses have

2. Alan J. Auerbach and Kevin A. Hassett, "The 2003 Dividend Tax Cuts and the Value of the Firm: An Event Study," in A. Auerbach, J. Hines, and J. Slemrod, eds., *Taxing Corporate Income in the 21st Century* (Cambridge, England: Cambridge University Press, 2007), Chapter 3; Alan J. Auerbach and Kevin A. Hassett, "Dividend Taxes and Firm Valuation: New Evidence," *American Economic Review*, vol. 96, no. 2 (May 2006), pp. 119–123.

3. Gene Amromin, Paul Harrison, and Steven Sharpe, *How Did the 2003 Dividend Tax Cut Affect Stock Prices?* Working Paper 2006-17 (Chicago: Federal Reserve Bank of Chicago, October 2006).

always been able to deduct the interest they pay on debt from their taxable income, so those payments have been taxed only once. (The individual who receives the payment pays the tax.) But if a business financed a project by issuing stock, some of the returns on the investment that the project generated were subject to full personal and corporate taxation. JGTRRA has narrowed that disparity in tax treatment, and the President's proposal would also do so, relative to the expiration of JGTRRA scheduled under current law.

The evidence amassed so far is consistent with the view that dividend taxation affects payout policies, at least in the short run. The reduction in dividend taxation in 2003, for instance, was followed by a significant increase in dividends issued, although it is unclear whether the tax cut caused businesses to increase their total payout to shareholders or simply to substitute dividends for share repurchases.<sup>4</sup> In addition, the factors that explain why some businesses increased dividend payouts more than others did are still being examined. So far, the response to the tax cut appears to be greater among businesses whose top executives held relatively large amounts of company stock (and relatively small amounts of unexercised stock options) and among those whose ownership was dominated by taxable institutions.

The proposed reduction in the future taxation of dividends and capital gains also would interact with some of the President's other proposals. The proposals to reduce tax rates for individuals and to limit the rate at which itemized deductions reduced taxes would bolster equity financing by corporations by reducing the subsidy for investment in owner-occupied housing.

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4. Jennifer Blouin, Jana Raedy, and Douglas Shackelford, *Did Dividends Increase Immediately After the 2003 Reduction in Tax Rates?* Working Paper 10301 (Cambridge, Mass.: National Bureau of Economic Research, February 2004); Jeffrey Brown, Nellie Liang, and Scott Weisbenner, "Executive Financial Incentives and Payout Policy: Firm Responses to the 2003 Dividend Tax Cut," *Journal of Finance*, vol. 62, no. 3 (2007), pp. 1935–1965; Raj Chetty and Emmanuel Saez, "Dividend Taxes and Corporate Behavior: Evidence from the 2003 Dividend Tax Cut," *Quarterly Journal of Economics*, vol. 120, no. 3 (2005), pp. 791–833, and "The Effects of the 2003 Dividend Tax Cut on Corporate Behavior: Interpreting the Evidence," *American Economic Review*, vol. 96, no. 2 (May 2006), pp. 124–129.

In its analysis, CBO incorporated the effects of the proposal regarding dividends and capital gains in several ways. First, it estimated the proposal's overall effect on the average cost of capital and incorporated those changes into three growth models (the "textbook" growth model, life-cycle growth model, and infinite-horizon growth model). Second, because those models cannot account for the effect of reallocating capital, CBO turned to the research on how reallocation might influence output. It then determined a midrange estimate and added that amount to the models' underlying estimates of the effect on output. The procedure added an average of 0.021 percent over the 2011–2020 period to the proposal's projected effect on real (inflation-adjusted) gross national product, as predicted by the models.

CBO used macroeconomic forecasting models (from Macroeconomic Advisers and Global Insight) to estimate the proposal's effect on the cost of capital in different sectors of the economy and on the value of stock shares (under the assumption that investors and businesses are forward-looking). It then incorporated those estimates in the models and projected the effect on the economy.

### **Expand the Saver's Credit**

Under current law, lower-income individuals who make contributions to IRAs or 401(k)-type plans can receive income tax credits for between 10 percent and 50 percent of the first \$2,000 of such contributions, but only up to the amount of income tax liability. The budget proposes to limit the contributions eligible for the credit to \$500 but to make the credit a flat 50 percent, even if it exceeds a person's income tax liability. The combination of shrinking the base of the credit, increasing its rate, and allowing it to exceed income tax liability would probably not significantly change private saving among those currently eligible for the credit.

However, the budget would extend the 50 percent credit to single taxpayers with income up to \$32,500 (instead of the current maximum of \$27,750), and would then phase the credit out over the next \$10,000. For heads of households, the new threshold would be \$48,750; for married taxpayers filing joint returns, it would be \$65,000 (with the credit phasing out over the next \$20,000). Extending the credit to those higher-income taxpayers would probably result in a slight increase in private saving.

## Reduce Estate and Gift Taxes

Under current law, there is no tax on estates in 2010. The tax is set to be reinstated in 2011, at a rate of 55 percent, with an exemption amount of \$1 million. The President's proposal would, beginning in 2010, return the estate tax to its 2009 rate of 45 percent with an exemption amount of \$3.5 million. Those changes would reduce revenues from the tax over the period from 2012 to 2020. (The tax treatment of gifts would change in a similar way in 2011 under the proposal: The tax rate would fall from the current-law proportion of 55 percent to 45 percent, and the exemption amount would remain at \$1 million. For simplicity, the remainder of this section will refer only to estate taxes when discussing the effects of the President's proposal for estate and gift taxes.)

The proposal to reduce estate taxes could affect consumer spending and saving, depending on people's motives for leaving bequests. There is no consensus, however, about which motives predominate or how estate taxes affect consumer spending. People might be encouraged to reduce their spending in order to leave larger bequests because of the lower estate tax their heirs would pay. But a lower estate tax also means that people can spend more and still make the same after-tax bequest. To the extent that a lower estate tax has increased the after-tax size of

bequests, potential recipients also might increase their spending. CBO has found scant evidence to support the contention of some analysts that the estate tax is a particular impediment to the creation of small businesses.<sup>5</sup>

CBO's estimates of the effects of the President's proposal incorporated the assumption that reducing estate taxes would increase consumer spending slightly, by about 5 cents for each dollar of tax savings.<sup>6</sup> That assumption implies that extending the repeal would reduce the capital stock, but by an amount too small to affect the estimates presented in Chapter 2 of this report. CBO considered alternative assumptions (for example, that the positive effect on consumer spending from increasing after-tax income would be balanced by the incentive effects of lower tax rates, resulting in no net impact on that spending) and concluded that those alternatives would yield similar results.

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5. See Congressional Budget Office, *Effects of the Federal Estate Tax on Farms and Small Businesses* (July 2005).
  6. CBO assumed that consumer spending would increase slightly because recipients of after-tax bequests would be unlikely in any given year to raise their spending significantly and because the effect on recipients might be offset to some degree by increased saving among those planning to leave bequests.



# The Models Used to Analyze the Supply-Side Macroeconomic Effects of the President's Budgetary Proposals

**T**he Congressional Budget Office (CBO) used three models—a “textbook” growth model, a life-cycle growth model, and an infinite-horizon growth model—to estimate the supply-side effects of the President’s budgetary proposals from 2011 to 2020, the period covered by CBO’s current 10-year baseline projections. (Estimates generated by those models are presented in Chapter 2.)

## Textbook Growth Model

The textbook growth model is an enhanced version of a model developed by Robert Solow, a pioneer in the theory of growth accounting.<sup>1</sup> It incorporates the assumption that economic output is determined by the number of hours of labor that workers supply, the size and composition of the capital stock (for example, factories and information systems), and total factor productivity—which represents the combined productivity of labor and capital, and rises with advances in processes and technological expertise. The model is not forward-looking: The people it represents base their decisions about working and saving entirely on current economic conditions. In particular, they do not respond to expected future changes in government policy. Moreover, instead of incorporating effects from demand-side variations in the economy, the model assumes that output is always at its potential level (the level of output consistent with a high rate of resource use).

The estimates that CBO developed using the textbook growth model incorporate the effects, as calculated separately by CBO, that changes in marginal tax rates

specified in the President’s budgetary proposals would have on the number of hours worked. The textbook growth model predicts that changes in marginal tax rates on capital have no direct effect on private saving.

The President’s budgetary proposals would increase federal deficits over the 10-year budget window, which is projected in the textbook growth model to have a negative effect on the capital stock. In particular, the larger deficits imply less public saving, and private saving would rise by an amount that only partially offsets the decline in public saving. Bigger deficits can lead to higher private saving for several reasons, including a response to higher interest rates and increases in disposable income (which can enable increases in both spending and saving), but those factors would probably not generate a complete offset. Thus, national saving would be lower, which would crowd out investment.

However, the net reduction in national saving caused by higher deficits would not entirely translate into reductions in domestic investment. Instead, part of the reduction would be reflected in increased borrowing from abroad, which allows the domestic capital stock to increase more rapidly than the capital stock owned by U.S. citizens (mainly but not entirely domestically located).<sup>2</sup>

CBO’s textbook growth model accounts for those tendencies by including two assumptions, each based on past relationships. First, the model assumes that every \$1 of

1. For a detailed description of the textbook growth model, see Congressional Budget Office, *CBO’s Method for Estimating Potential Output: An Update* (August 2001).

2. The ultimate effect of increased borrowing from abroad depends on whether one is examining domestic output (which reflects the return on the domestic capital stock) or national income (which reflects the return on the capital stock owned by U.S. citizens).

deficit leads people to increase their private saving by 40 cents and thus reduces national saving by 60 cents. Second, the model assumes that every decline of \$1 in national saving leads to a 40 cent increase in the amount of foreign capital invested in the United States. Together, those assumptions imply that a \$1 increase in the budget deficit results in a 40 cent increase in private saving, a 24 cent increase in capital inflows (24 cents equals 60 cents times 0.4), and a 36 cent decline in domestic investment.

## Life-Cycle and Infinite-Horizon Growth Models

Like the textbook growth model, the life-cycle and infinite-horizon growth models ignore demand-side effects. They differ from the textbook growth model in several fundamental ways, however.<sup>3</sup> Both models assume that people decide how much to work and save to make themselves as well off as possible over a lifetime. That behavior is calibrated so that such macroeconomic variables as the total amount of labor supplied and the size of the capital stock match that in the U.S. economy. In the life-cycle and infinite-horizon models, people's spending changes by a relatively large amount in response to changes in the after-tax rate of return on their saving.

The life-cycle and infinite-horizon models are designed to capture the fact that people make decisions on the basis not only of information about the present but in keeping with their expectations for the future. The President's proposals affect government spending and revenues over the 10-year projection period, and any deficits or surpluses that accumulate over that period can affect budgetary decisions in later years. People's expectations about those developments can affect their behavior before the changes materialize. Analysts disagree, however, on the extent to which expectations influence people's economic decisions, the time horizon over which people plan, or the future policy shifts they actually expect. CBO therefore analyzed the President's proposals using a wide range

of assumptions about the extent of people's foresight and the expectations they might have about future policies. That approach yields a range of plausible estimates about how those proposals could affect economic growth.

The households in the life-cycle and infinite-horizon models are assumed to be forward-looking, to form expectations about future economic and policy developments that are rational and consistent with the model, and to alter their behavior accordingly. They are assumed to have perfect foresight about the future of the economy as a whole and about government policies. Thus, the models' assumptions about people's behavior are in some sense the opposite extreme from those in the textbook growth model. Most people's foresight actually falls somewhere between those two extreme assumptions, but using those two extremes allows CBO to encompass the broadest possible range of responses to the President's budgetary proposals.

Although the life-cycle and infinite-horizon models do not provide a role for unpredictable fluctuations in aggregate output, CBO's models do assume that individual households face unforeseeable (and idiosyncratic) fluctuations in their income against which they cannot buy insurance. Faced with that uncertainty, households hold some additional "precautionary" savings as a buffer against potential drops in income. That makes CBO's models somewhat more realistic than models in which households are assumed to have no uncertainty about their future income. Because the precautionary motive to save is not strongly affected by changes in tax rates, households' savings do not respond as much to policy changes as they would in models that do not include the precautionary motive.

Because people's behavior as represented in the life-cycle and infinite-horizon models depends in part on future policies, those models require analysts to make assumptions about budgetary policies beyond 2020 (the end of the 10-year projection period). Policies that increase deficits during the projection period would yield greater debt payments, requiring higher taxes or lower spending later than would have been the case under CBO's baseline assumptions. Policies that reduce deficits would require the opposite.

Assumptions about how and when to finance the increased deficits can influence the estimated economic effects of the President's proposed policies over the

3. For a detailed description of the life-cycle model, see Shinichi Nishiyama, *Analyzing Tax Policy Changes Using a Stochastic OLG Model with Heterogeneous Households*, CBO Technical Paper 2003-12 (December 2003). For a description of a model very similar to the infinite-horizon model, see S.R. Aiyagari, "Optimal Capital Income Taxation with Incomplete Markets, Borrowing Constraints, and Constant Discounting," *Journal of Political Economy*, vol. 103, no. 6 (December 1995), pp. 1158-1175.

2011–2020 period because people anticipate the offsetting policies and plan accordingly. In its analysis, CBO used two assumptions about how the budget would be stabilized after 2020: Either marginal tax rates or government spending would be adjusted. (Spending adjustments are assumed to be spread roughly equally across government purchases of goods and services—which the models assume do not substitute for private spending—and transfer payments.) In either case, those adjustments are assumed to be phased in during the decade after the projection period, namely from 2021 to 2030.

The life-cycle and infinite-horizon models differ in their assumptions about how far ahead people look in making their plans. The life-cycle model is calibrated so that the probability of death at a given age matches current U.S. mortality rates, and people are assumed to consider the effects of future economic or policy changes for themselves but not for their children. In the infinite-horizon model, people behave as though they expect to live forever—behavior that is effectively equivalent to acting as though the well-being of their descendants is as important to them as their own well-being. Although many people care about their descendants, there is evidence against the assumption used in the infinite-horizon model that people care as much about their descendants as they do about themselves.<sup>4</sup>

The difference in the models' time horizons affects their estimated responses to the President's policies. Although people in both models anticipate the President's stated proposals and the eventual offsetting policies that would finance them, older generations in the life-cycle model know that they could retire or die before a policy change occurs. Consequently, anticipation of policy changes

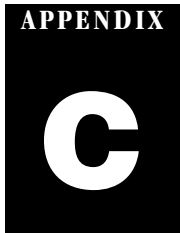
tends to have a smaller effect on people's current behavior in the life-cycle model than it has in the infinite-horizon model.

Another characteristic that affects the models' estimates is the degree to which the domestic economy is open to the flow of foreign capital. The degree of openness is important because foreign capital determines both how easily domestic investment can be financed by sources other than domestic saving and the degree to which budgetary policies can affect wage and interest rates. CBO used two opposite assumptions in the life-cycle model about how open the economy is to flows of capital to and from other countries. One assumption was that the economy is completely closed—no capital can flow into or out of the United States. The other was that the economy is completely open and cannot affect world interest rates—capital flows freely into and out of the country to keep the domestic interest rate equal to a constant world rate. The U.S. economy effectively operates somewhere between those two extremes; even though it is relatively open to investment, it is so large that it can influence world interest rates. By using the two assumptions, CBO obtained a range of results that bounds the probable effects of the modeled policy changes.

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4. See Paul Evans, "Consumers Are Not Ricardian: Evidence from Nineteen Countries," *Economic Inquiry*, vol. 31, no. 4 (October 1993), pp. 534–548; Fumio Hayashi, Joseph Altonji, and Laurence Kotlikoff, "Risk Sharing Between and Within Families," *Econometrica*, vol. 64, no. 2 (March 1996), pp. 261–294; and T.D. Stanley, "New Wine in Old Bottles: A Meta-Analysis of Ricardian Equivalence," *Southern Economic Journal*, vol. 64, no. 3 (January 1998), pp. 713–727.





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