

CONGRESSIONAL BUDGET OFFICE

Measuring the Effects of the Business Cycle on the Federal Budget: An Update

September 1, 2009

In August 2009, the Congressional Budget Office (CBO) released its most recent baseline projections of federal revenues, outlays, and budget balances for the next 10 fiscal years.¹ CBO develops its projections through a process that assumes the continuation of the laws and policies that affect taxes and mandatory spending programs and that extrapolates the growth of discretionary spending by using projected rates of inflation. According to CBO's projections, under current tax and spending policies, the budget deficit would increase from \$459 billion in 2008 to \$1.6 trillion in 2009 and then fall to \$1.4 trillion in 2010 and to \$921 billion in 2011.

The size of the deficit is influenced both by policy changes and by the automatic responses of revenues and outlays to economic developments. In addition to the effects of the business cycle (which are most pronounced during recessions), other economic factors influencing the budget include changes in the long-term (trend) growth rate of the economy, movements in the distribution and proportion of income subject to taxation, and variations in interest rates and in the pace of inflation.² Table 1 and Table 2 present estimates of the cyclically adjusted deficit or surplus (through fiscal year 2011) that correspond to CBO's latest estimates of the baseline federal budget.³ The cyclically adjusted deficit or surplus is a measure that attempts to filter out the budgetary effects of the economy operating below or above its potential

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1. See Congressional Budget Office, *The Budget and Economic Outlook: An Update* (August 2009).
 2. This update is the latest in a series of reports presenting estimates of adjustments for the effects of the business cycle. The preceding report contains more discussion. See Congressional Budget Office, *Measuring the Effects of the Business Cycle on the Federal Budget* (June 2009). For a description of methodology similar to that used by CBO, see Darrel Cohen and Glenn Follette, "The Automatic Fiscal Stabilizers: Quietly Doing Their Thing," in *Economic Policy Review*. Federal Reserve Bank of New York, vol. 6, no. 1 (April 2000), pp. 35–68.
 3. Quarterly estimates of cyclically adjusted net federal government saving (a measure akin to but not the same as the federal budget deficit or surplus) are available in a [spreadsheet](#) accompanying this document on CBO's Web site, www.cbo.gov.

level of real (inflation-adjusted) output and employment. It does not include adjustments for other economic factors that affect the budget.

Under CBO's assumptions for its baseline, the cyclically adjusted budget deficit will rise sharply in 2009, to 8.6 percent of potential gross domestic product (GDP) (from 2.7 percent in 2008). Potential GDP is the amount of output that corresponds to a high level of resource (labor and capital) use. The cyclically adjusted budget deficit then decreases in 2010 to 6.3 percent of potential GDP and in 2011 to 3.4 percent. Those deficits are smaller than the unadjusted deficit estimates because the latter include the automatic responses of revenues and outlays to the recession. CBO expects that economic output will be much farther below potential in 2009, 2010, and 2011 than it was in 2008, which is to say that the business cycle will substantially increase the federal budget deficit in those years. When the economy reaches its potential level of output, the cyclically adjusted measure of the budget balance will match the unadjusted measure.

The cyclical contribution (the difference between the unadjusted budget deficit or surplus and the cyclically adjusted deficit or surplus) is sometimes used as a measure of the so-called automatic stabilizers (changes in revenues and outlays, driven by the business cycle, that mitigate the decline of real income in recessions and dampen its growth in booms). In 2000, the cyclical contribution amounted to a surplus of 1.7 percent of potential GDP, which indicated that the strength of the economy was temporarily and significantly augmenting the budget surplus. By 2002, the cyclical contribution had turned negative, amounting to 0.7 percent of potential GDP by 2003—which meant that the economy, in operating below its potential, was adding to the budget deficit. A series of negative but diminishing cyclical contributions ensued for the next three years, shrinking to less than 0.1 percent of potential GDP in 2006. Cyclical contributions have remained negative but have increased in size since then, and they will grow considerably larger through 2010, CBO projects, when—at 2.6 percent of potential GDP—the effect of the economy on the budget will add more to the deficit than estimated by CBO for any previous years of economic slack since at least 1962. The cyclical contribution will decrease somewhat in 2011—to 2.4 percent of potential GDP—when the economy is projected to move slightly closer to its potential level of output.

Table 1.

The Cyclically Adjusted Budget Deficit or Surplus and Related Series in Billions of Dollars, 1962 to 2011

	Budget (Unadjusted) Deficit (-) or Surplus	-	Cyclical Contributions	=	Cyclically Adjusted Deficit (-) or Surplus	Cyclically Adjusted Budget	
						Revenues	Outlays
1962	-7		-2		-5	102	106
1963	-5		-2		-3	108	111
1964	-6		1		-7	112	119
1965	-1		4		-5	114	119
1966	-4		11		-15	121	136
1967	-9		11		-20	140	160
1968	-25		9		-35	146	181
1969	3		12		-9	178	187
1970	-3		4		-7	191	198
1971	-23		-4		-19	191	210
1972	-23		-1		-23	208	231
1973	-15		13		-27	220	248
1974	-6		10		-16	255	272
1975	-53		-17		-36	293	329
1976	-74		-24		-50	313	363
1977	-54		-13		-41	364	405
1978	-59		1		-60	399	459
1979	-41		9		-50	456	506
1980	-74		-15		-59	529	588
1981	-79		-21		-58	616	674
1982	-128		-59		-69	665	734
1983	-208		-85		-123	666	788
1984	-185		-31		-155	693	848
1985	-212		-17		-195	748	943
1986	-221		-13		-208	780	988
1987	-150		-18		-132	872	1005
1988	-155		*		-155	913	1068
1989	-153		13		-165	982	1,147
1990	-221		2		-224	1,031	1,254
1991	-269		-59		-210	1,106	1,316
1992	-290		-79		-211	1,154	1,365
1993	-255		-62		-193	1,204	1,396
1994	-203		-36		-167	1,289	1,456
1995	-164		-15		-149	1,368	1,517
1996	-107		-13		-94	1,465	1,559
1997	-22		29		-51	1,551	1,602
1998	69		71		-1	1,656	1,657
1999	126		110		15	1,722	1,707

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Table 1.**Continued**

The Cyclically Adjusted Budget Deficit or Surplus and Related Series in Billions of Dollars, 1962 to 2011

	Budget (Unadjusted) Deficit (-) or Surplus	-	Cyclical Contributions	=	Cyclically Adjusted Deficit (-) or Surplus	Cyclically Adjusted Budget	
						Revenues	Outlays
2000	236		154		82	1,878	1,796
2001	128		88		40	1,904	1,864
2002	-158		-27		-130	1,863	1,993
2003	-378		-80		-298	1,843	2,141
2004	-413		-52		-360	1,921	2,281
2005	-318		-22		-297	2,175	2,472
2006	-248		-6		-243	2,417	2,659
2007	-161		-29		-131	2,601	2,732
2008	-459		-73		-385	2,585	2,971
2009	-1,587		-295		-1,292	2,312	3,604
2010 ^a	-1,381		-406		-975	2,588	3,563
2011 ^a	-921		-387		-534	3,054	3,588

Sources: Congressional Budget Office; Office of Management and Budget.

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

a. Projected.

Table 2.

The Cyclically Adjusted Budget Deficit or Surplus and Related Series as a Percentage of Potential Gross Domestic Product, 1962 to 2011

	Budget (Unadjusted) Deficit (-) or Surplus	-	Cyclical Contributions	=	Cyclically Adjusted Deficit (-) or Surplus	Cyclically Adjusted Budget	
						Revenues	Outlays
1962	-1.2		-0.4		-0.8	17.7	18.5
1963	-0.8		-0.3		-0.5	17.9	18.4
1964	-0.9		0.2		-1.1	17.5	18.6
1965	-0.2		0.6		-0.8	16.8	17.6
1966	-0.5		1.6		-2.1	16.8	18.9
1967	-1.1		1.4		-2.5	18.0	20.5
1968	-3.0		1.1		-4.1	17.3	21.4
1969	0.4		1.3		-1.0	19.4	20.3
1970	-0.3		0.4		-0.7	19.0	19.7
1971	-2.1		-0.4		-1.7	17.5	19.2
1972	-2.0		-0.1		-1.9	17.6	19.6
1973	-1.2		1.0		-2.2	17.3	19.5
1974	-0.4		0.7		-1.2	18.1	19.2
1975	-3.3		-1.1		-2.2	18.1	20.3
1976	-4.1		-1.3		-2.8	17.5	20.3
1977	-2.7		-0.6		-2.0	18.2	20.2
1978	-2.7		*		-2.7	18.0	20.7
1979	-1.6		0.4		-2.0	18.4	20.4
1980	-2.7		-0.5		-2.1	19.1	21.2
1981	-2.5		-0.7		-1.9	19.8	21.7
1982	-3.7		-1.7		-2.0	19.5	21.5
1983	-5.7		-2.3		-3.3	18.1	21.4
1984	-4.7		-0.8		-3.9	17.6	21.6
1985	-5.1		-0.4		-4.7	17.8	22.5
1986	-5.0		-0.3		-4.7	17.5	22.2
1987	-3.2		-0.4		-2.8	18.5	21.3
1988	-3.1		*		-3.1	18.2	21.3
1989	-2.8		0.2		-3.1	18.3	21.4
1990	-3.9		*		-3.9	18.0	21.8
1991	-4.4		-1.0		-3.4	18.1	21.5
1992	-4.5		-1.2		-3.3	18.0	21.3
1993	-3.8		-0.9		-2.9	17.9	20.8
1994	-2.9		-0.5		-2.4	18.3	20.7
1995	-2.2		-0.2		-2.0	18.6	20.6
1996	-1.4		-0.2		-1.2	19.0	20.2
1997	-0.3		0.4		-0.6	19.2	19.8
1998	0.8		0.8		*	19.6	19.6
1999	1.4		1.2		0.2	19.5	19.3

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Table 2.**Continued**

The Cyclically Adjusted Budget Deficit or Surplus and Related Series as a Percentage of Potential Gross Domestic Product, 1962 to 2011

	Budget (Unadjusted) Deficit (-) or Surplus	-	Cyclical Contributions	=	Cyclically Adjusted Deficit (-) or Surplus	Cyclically Adjusted Budget	
						Revenues	Outlays
2000	2.5		1.7		0.9	20.1	19.3
2001	1.3		0.9		0.4	19.2	18.8
2002	-1.5		-0.3		-1.2	17.8	19.1
2003	-3.4		-0.7		-2.7	16.8	19.5
2004	-3.6		-0.5		-3.1	16.5	19.7
2005	-2.6		-0.2		-2.4	17.7	20.1
2006	-1.9		*		-1.9	18.5	20.4
2007	-1.2		-0.2		-1.0	18.9	19.9
2008	-3.2		-0.5		-2.7	17.9	20.6
2009	-10.5		-2.0		-8.6	15.4	23.9
2010 ^a	-8.9		-2.6		-6.3	16.7	22.9
2011 ^a	-5.8		-2.4		-3.4	19.2	22.6

Source: Congressional Budget Office.

Note: Potential gross domestic product is the level of output that corresponds to a high level of resource—labor and capital—use.

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

a. Projected.