

**THE BUDGET ADJUSTED FOR  
EFFECTS OF THE BUSINESS CYCLE**

**July 30, 1999**

**Congress of the United States  
Congressional Budget Office**

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## NOTES

The figure in this report uses shaded vertical bars to indicate periods of recession. Those bars extend from the peak to the trough of the recession.

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

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# Preface

This report provides material that supplements the Congressional Budget Office's (CBO's) *The Economic and Budget Outlook: An Update* (July 1, 1999). In accordance with CBO's mandate to provide objective and impartial analysis, this document contains no recommendations.

The analysis was prepared by Frank Russek of CBO's Macroeconomic Analysis Division under the supervision of Robert Dennis. David Arnold provided research assistance.

Sherry Snyder edited the report, and Liz Williams proofread it. Dorothy Kornegay and Linda Lewis Harris assisted in the production of the report. Kathryn Quattrone prepared the final version for publication, and Laurie Brown prepared the electronic versions for CBO's World Wide Web site ([www.cbo.gov](http://www.cbo.gov)).

Dan L. Crippen  
Director

July 30, 1999

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# The Budget Adjusted for Effects of the Business Cycle

Much of the budget surplus projected by the Congressional Budget Office (CBO) for this year and next arises because the economy is operating at an unsustainably high rate. Under current tax and spending policies, CBO projects that the budget surplus will amount to \$120 billion in fiscal year 1999 and \$161 billion in 2000. But when the economic effects that are likely to be transitory are taken into account (along with other factors discussed below), the resulting surplus—the so-called standardized-employment surplus—is only \$12 billion for this year and \$69 billion for next year (see Table 1).

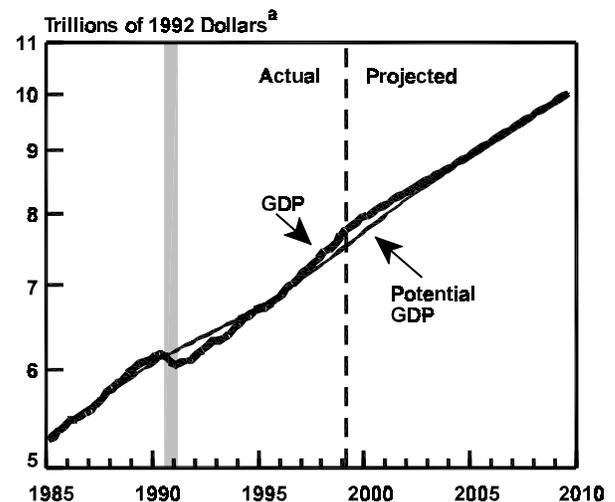
CBO's estimate of the standardized-employment budget relies heavily on CBO's estimate of potential gross domestic product (GDP)—the level of GDP compatible with stable inflation—and on how actual GDP varies around potential GDP over time (see Figure 1). The estimate of potential GDP is based on a growth model that takes into account trends in hours worked, the capital stock, and the productivity of those two factors of production. It is consistent with CBO's estimate of the NAIRU—the nonaccelerating inflation rate of unemployment—which is now 5.5 percent. Revisions of the underlying assumptions or methodology used to estimate potential GDP will alter the estimates of the standardized-employment budget (see Box 1).

GDP is now about 3 percent higher than CBO's estimate of potential GDP. That economic strength is mirrored in the unemployment rate, which at 4.3 per-

cent in mid-1999 is near a 30-year low and is substantially lower than the NAIRU. On average over the next 10 years, however, the unemployment rate will probably be closer to the NAIRU, and the economy will operate closer to potential than it does now. Consequently, the cyclical component of the budget

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**Figure 1.**  
**GDP and Potential GDP**



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

NOTE: Values are plotted using a logarithmic scale.

a. Chain weighted.

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surplus is projected to be smaller, on average, in the years ahead.

CBO's measure of the standardized-employment budget removes from federal outlays and revenues the effects of departures from potential GDP and the NAIRU. When GDP is above potential GDP, as it now is, the cyclical bulge in revenues is removed from actual revenues. Similarly, when the unemployment rate is below the NAIRU, the cyclical savings in un-

employment benefits and other transfer programs are added back to outlays. Those adjustments thus remove variations in the budget totals attributable to cyclical factors.

The standardized-employment budget also excludes outlays for deposit insurance, receipts from spectrum auctions and asset sales, and the effects of calendar quirks and other timing adjustments. Transactions such as deposit insurance, spectrum auctions, and asset sales are largely transitory and have little impact on current economic developments because they are simply exchanges of existing assets. Calendar or timing adjustments correct the fiscal year budget totals for meaningless aberrations in the pattern of revenues and outlays that occur when, for example, there are 13 monthly payments in one year and 11 in the next.

CBO estimates that the standardized-employment budget will change from a slight deficit in 1998 to a surplus of 0.8 percent of potential GDP in 2000 (see Table 1). Most of that change occurs next year and largely reflects declines in discretionary outlays and net interest payments. When interest payments are excluded to more clearly isolate the discretionary component of budget policy, the increase in the standardized-employment surplus in 2000 (shown in Table 1 under "Primary Surplus") is about half as large as it is when interest payments are included (see "Total Surplus").

By 2009, under current tax and spending policies, the standardized-employment surplus would reach 3 percent of potential GDP—higher than in any previous year. (Historical estimates are in Tables 2, 3, and 4.) Virtually all of that improvement would result from a steady decline in interest payments and discretionary outlays as shares of potential GDP. Excluding interest payments, the primary standardized-employment surplus after 2000 is stable relative to potential GDP.

**Box 1.**  
**Possible Revisions to**  
**Estimates of Potential GDP**

The performance of the economy in recent years, characterized by low unemployment without an acceleration of inflation, has raised questions about the measurement of potential gross domestic product (GDP)—the level of output consistent with stable inflation. At face value, those favorable conditions suggest that potential GDP is higher—much closer to GDP—than is currently estimated. In that case, the projected path of potential GDP would be higher, implying faster economic growth and more tax revenues in the years ahead.

The Congressional Budget Office (CBO) routinely revises its estimates of potential GDP in response to official revisions to the historical data in the national income and product accounts. Other changes are made periodically to reflect technical changes in the model CBO uses to estimate potential GDP. During the next few months, CBO will undertake a thorough review of its measure of potential GDP, and that review will include consultations with economists in the private sector. The results of that review process could lead CBO to change its estimates of potential GDP.

**Table 1.**  
**The Standardized-Employment Budget (By fiscal year)**

	Actual		Projected										
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>In Billions of Dollars</b>													
Revenues													
Budget	1,579	1,722	1,821	1,905	1,970	2,045	2,116	2,198	2,296	2,396	2,501	2,609	2,725
Adjustments													
Cyclical	-26	-53	-83	-77	-58	-41	-26	-13	-4	-1	a	a	a
Other	-1	-4	5	0	0	0	0	0	0	0	0	0	0
Standardized budget	1,552	1,665	1,743	1,828	1,912	2,004	2,090	2,185	2,291	2,396	2,051	2,609	2,726
Discretionary Outlays <sup>b,c</sup>	548	555	574	580	575	569	583	598	613	628	644	660	677
Mandatory Spending Plus													
Offsetting Receipts													
Budget	809	855	898	942	991	1,035	1,107	1,170	1,248	1,303	1,381	1,472	1,564
Adjustments													
Cyclical	5	9	9	8	5	3	2	1	a	a	a	a	a
Other	28	8	21	7	5	16	5	4	-8	10	10	4	4
Standardized budget	842	872	928	956	1,000	1,055	1,114	1,175	1,241	1,314	1,392	1,477	1,569
Primary Surplus													
Budget	222	313	349	384	405	441	426	430	434	465	476	477	485
Adjustments													
Cyclical	-31	-62	-92	-85	-63	-45	-28	-13	-5	-1	a	a	a
Other	-29	-13	-16	-7	-5	-16	-5	-4	8	-10	-10	-4	-4
Standardized budget	162	238	241	292	336	380	393	413	437	454	466	473	480
Net Interest <sup>b</sup>	244	243	229	222	212	194	179	164	148	131	112	92	71
Total Surplus													
Budget	-22	69	120	161	193	246	247	266	286	334	364	385	413
Adjustments													
Cyclical	-31	-62	-92	-85	-63	-45	-28	-13	-5	-1	a	a	a
Other	-29	-13	-16	-7	-5	-16	-5	-4	8	-10	-10	-4	-4
Standardized budget	-82	-5	12	69	125	185	214	249	289	323	353	380	409
<b>Memorandum:</b>													
Other Adjustments													
Timing shifts	1	4	-5	0	3	-3	0	0	11	-6	-5	0	0
Deposit insurance	-14	-4	-6	-2	-1	a	a	1	1	-1	-1	-1	-1
Asset sales	-5	-10	-4	-3	-4	-4	-4	-3	-3	-3	-3	-3	-3
Spectrum auctions	-11	-3	-1	-1	-3	-9	-2	-1	-1	-1	-1	a	0

Continued

**Table 1.**  
**Continued**

	Actual		Projected										
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>As a Percentage of Potential GDP</b>													
Revenues													
Budget	20.0	20.9	21.2	21.1	20.8	20.6	20.3	20.2	20.2	20.2	20.1	20.1	20.1
Adjustments													
Cyclical	-0.3	-0.6	-1.0	-0.9	-0.6	-0.4	-0.2	-0.1	d	d	d	d	d
Other	0	-0.1	0.1	0	0	0	0	0	0	0	0	0	0
Standardized budget	19.6	20.2	20.3	20.2	20.2	20.2	20.1	20.1	20.1	20.2	20.1	20.1	20.1
Discretionary Outlays <sup>b,c</sup>	6.9	6.7	6.7	6.4	6.1	5.7	5.6	5.5	5.4	5.3	5.2	5.1	5.0
Mandatory Spending Plus													
Offsetting Receipts													
Budget	10.2	10.4	10.5	10.4	10.5	10.4	10.6	10.8	11.0	11.0	11.1	11.3	11.5
Adjustments													
Cyclical	0.1	0.1	0.1	0.1	0.1	0.1	d	d	d	d	d	d	d
Other	0.4	0.1	0.2	0.1	d	0.2	0.1	d	-0.1	0.1	0.1	d	d
Standardized budget	10.6	10.6	10.8	10.6	10.6	10.6	10.7	10.8	10.9	11.1	11.2	11.4	11.6
Primary Surplus													
Budget	2.8	3.8	4.1	4.3	4.3	4.4	4.1	4.0	3.8	3.9	3.8	3.7	3.6
Adjustments													
Cyclical	-0.4	-0.8	-1.1	-0.9	-0.7	-0.4	-0.3	-0.1	d	d	d	d	d
Other	-0.4	-0.2	-0.2	-0.1	d	-0.2	-0.1	d	0.1	-0.1	-0.1	d	d
Standardized budget	2.0	2.9	2.8	3.2	3.6	3.8	3.8	3.8	3.8	3.8	3.7	3.6	3.5
Net Interest <sup>b</sup>	3.1	3.0	2.7	2.5	2.2	2.0	1.7	1.5	1.3	1.1	0.9	0.7	0.5
Total Surplus													
Budget	-0.3	0.8	1.4	1.8	2.0	2.5	2.4	2.4	2.5	2.8	2.9	3.0	3.1
Adjustments													
Cyclical	-0.4	-0.8	-1.1	-0.9	-0.7	-0.4	-0.3	-0.1	d	d	d	d	d
Other	-0.4	-0.2	-0.2	-0.1	d	-0.2	-0.1	d	0.1	-0.1	-0.1	d	d
Standardized budget	-1.0	-0.1	0.1	0.8	1.3	1.9	2.1	2.3	2.5	2.7	2.8	2.9	3.0
<b>Memorandum:</b>													
Other Adjustments													
Timing shifts	d	0.1	0.1	0	d	d	0	0	0.1	d	d	0	0
Deposit insurance	-0.2	-0.1	-0.1	d	d	d	d	d	d	d	d	d	d
Asset sales	-0.1	-0.1	d	d	d	d	d	d	d	d	d	d	d
Spectrum auctions	-0.1	d	d	d	d	-0.1	d	d	d	d	d	d	0
Potential GDP (Billions of dollars)	7,910	8,237	8,590	9,028	9,478	9,934	10,401	10,878	11,373	11,886	12,419	12,972	13,548

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

a. Less than \$500 million.

b. No cyclical adjustment is appropriate for this category.

c. No other adjustments apply to discretionary outlays in the period covered by this table.

d. Less than 0.05 percent.

**Table 2.**  
**Deficits, Surpluses, Debt, and Related Series, Fiscal Years 1956-1998**

	In Billions of Dollars			As a Percentage of GDP			GDP		NAIRU <sup>d</sup> (Percent)
	Deficit (-) or Surplus	Standardized- Employment Deficit (-) or Surplus <sup>a</sup>	Debt Held by the Public	Deficit (-) or Surplus	Standardized- Employment Deficit (-) or Surplus <sup>a,b</sup>	Debt Held by the Public	(Billions of dollars) Actual <sup>c</sup>	Potential	
1956	4	e	222	0.9	-0.1	52.0	427	415	5.4
1957	3	1	219	0.8	0.2	48.6	451	445	5.4
1958	-3	1	226	-0.6	0.2	49.2	460	472	5.4
1959	-13	-10	235	-2.6	-2.1	47.8	491	498	5.4
1960	e	1	237	0.1	0.1	45.6	519	521	5.5
1961	-3	3	238	-0.6	0.6	45.0	530	549	5.5
1962	-7	-4	248	-1.3	-0.8	43.7	568	577	5.5
1963	-5	-3	254	-0.8	-0.5	42.4	599	607	5.5
1964	-6	-7	257	-0.9	-1.1	40.1	641	640	5.6
1965	-1	-5	261	-0.2	-0.8	38.0	687	677	5.6
1966	-4	-15	264	-0.5	-2.1	34.9	756	722	5.7
1967	-9	-21	267	-1.1	-2.7	32.9	810	778	5.8
1968	-25	-37	290	-2.9	-4.4	33.3	870	843	5.8
1969	3	-10	278	0.3	-1.1	29.3	948	917	5.8
1970	-3	-9	283	-0.3	-0.9	28.1	1,010	1,002	5.9
1971	-23	-21	303	-2.1	-1.9	28.1	1,078	1,092	5.9
1972	-23	-23	322	-2.0	-1.9	27.4	1,175	1,182	6.0
1973	-15	-31	341	-1.1	-2.4	26.0	1,310	1,275	6.1
1974	-6	-23	344	-0.4	-1.6	23.9	1,438	1,416	6.2
1975	-53	-37	395	-3.4	-2.3	25.4	1,554	1,614	6.2
1976	-74	-54	477	-4.3	-3.0	27.6	1,732	1,786	6.2
1977	-54	-46	549	-2.7	-2.3	27.9	1,971	1,997	6.2
1978	-59	-64	607	-2.7	-2.9	27.4	2,215	2,209	6.3
1979	-41	-56	640	-1.6	-2.3	25.6	2,497	2,473	6.3
1980	-74	-62	710	-2.7	-2.2	26.1	2,719	2,774	6.2
1981	-79	-63	785	-2.6	-2.0	25.8	3,048	3,125	6.2
1982	-128	-73	920	-4.0	-2.1	28.6	3,214	3,424	6.1
1983	-208	-137	1,132	-6.1	-3.7	33.1	3,423	3,663	6.1
1984	-185	-168	1,300	-4.9	-4.3	34.0	3,819	3,899	6.1
1985	-212	-195	1,500	-5.2	-4.7	36.5	4,109	4,142	6.0
1986	-221	-220	1,737	-5.1	-5.0	39.8	4,368	4,383	6.0
1987	-150	-158	1,889	-3.2	-3.4	41.0	4,609	4,640	6.0
1988	-155	-162	2,051	-3.1	-3.3	41.4	4,957	4,935	5.9
1989	-152	-157	2,190	-2.8	-3.0	40.9	5,356	5,283	5.9
1990	-221	-183	2,411	-3.9	-3.2	42.4	5,683	5,641	5.9
1991	-269	-202	2,688	-4.6	-3.4	45.9	5,862	6,015	5.9
1992	-290	-231	2,999	-4.7	-3.7	48.8	6,149	6,316	5.8
1993	-255	-236	3,247	-3.9	-3.6	50.1	6,478	6,609	5.8
1994	-203	-185	3,432	-3.0	-2.7	50.1	6,849	6,906	5.8
1995	-164	-184	3,603	-2.3	-2.5	50.1	7,196	7,232	5.7
1996	-107	-126	3,733	-1.4	-1.6	49.4	7,555	7,559	5.7
1997	-22	-82	3,771	-0.3	-1.0	47.1	8,002	7,910	5.7
1998	69	-5	3,720	0.8	-0.1	44.3	8,404	8,237	5.6

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

- Excludes deposit insurance, receipts from auctions of the electromagnetic spectrum, timing adjustments, asset sales, contributions from allied nations for Operation Desert Storm (which were received in 1991 and 1992), and the effects of the business cycle.
- The standardized-employment deficit is shown as a percentage of potential GDP.
- Fiscal year actual GDP numbers calculated from quarterly NIPA numbers from the Bureau of Economic Analysis.
- The NAIRU is the nonaccelerating inflation rate of unemployment. It is the benchmark for computing potential GDP.
- Less than \$500 million.

**Table 3.**  
**Standardized-Employment Deficit or Surplus and Related Series, Fiscal Years 1956-1998**  
(In billions of dollars)

	Budget Deficit (-) or Surplus	Cyclical Deficit (-) or Surplus	Other Adjustments <sup>a</sup>	Standardized-Employment		
				Deficit (-) or Surplus	Revenues	Outlays
1956	4	4	b	b	71	71
1957	3	3	b	1	78	77
1958	-3	-4	b	1	83	82
1959	-13	-3	b	-10	81	91
1960	b	b	b	1	93	92
1961	-3	-6	b	3	100	97
1962	-7	-3	b	-4	102	107
1963	-5	-2	1	-3	109	112
1964	-6	1	b	-7	112	119
1965	-1	3	b	-5	114	120
1966	-4	11	1	-15	122	137
1967	-9	11	1	-21	140	161
1968	-25	10	2	-37	145	182
1969	3	13	1	-10	177	188
1970	-3	5	1	-9	190	199
1971	-23	-4	1	-21	191	211
1972	-23	-2	1	-23	209	232
1973	-15	11	5	-31	221	253
1974	-6	10	7	-23	256	279
1975	-53	-18	2	-37	293	330
1976	-74	-23	3	-54	313	366
1977	-54	-12	4	-46	363	409
1978	-59	1	3	-64	399	462
1979	-41	9	6	-56	456	512
1980	-74	-17	4	-62	530	592
1981	-79	-27	11	-63	622	685
1982	-128	-63	8	-73	669	742
1983	-208	-81	10	-137	661	798
1984	-185	-27	9	-168	689	857
1985	-212	-13	-5	-195	743	938
1986	-221	-7	5	-220	773	994
1987	-150	-8	16	-158	863	1,021
1988	-155	9	-1	-162	904	1,066
1989	-152	24	-20	-157	970	1,127
1990	-221	14	-53	-183	1,019	1,201
1991	-269	-47	-20	-202	1,094	1,296
1992	-290	-64	5	-231	1,139	1,371
1993	-255	-50	31	-236	1,193	1,429
1994	-203	-22	4	-185	1,278	1,464
1995	-164	-7	27	-184	1,363	1,547
1996	-107	-1	19	-126	1,456	1,582
1997	-22	31	29	-82	1,552	1,634
1998	69	62	13	-5	1,665	1,670

SOURCE: Congressional Budget Office.

a. Consists of deposit insurance, receipts from auctions of the electromagnetic spectrum, timing adjustments, asset sales, and contributions from allied nations for Operation Desert Storm (which were received in 1991 and 1992).

b. Less than \$500 million.

**Table 4.**  
**Standardized-Employment Deficit or Surplus and Related Series, Fiscal Years 1956-1998**  
**(As a percentage of potential GDP)**

	Budget Deficit (-) or Surplus <sup>a</sup>	Cyclical Deficit (-) or Surplus	Other Adjustments <sup>b</sup>	Standardized-Employment		
				Deficit (-) or Surplus	Revenues	Outlays
1956	0.9	1.1	c	-0.1	17.1	17.2
1957	0.8	0.6	c	0.2	17.6	17.4
1958	-0.6	-0.8	c	0.2	17.6	17.4
1959	-2.6	-0.5	c	-2.1	16.3	18.4
1960	0.1	c	c	0.1	17.8	17.7
1961	-0.6	-1.2	c	0.6	18.2	17.7
1962	-1.3	-0.5	0.1	-0.8	17.8	18.5
1963	-0.8	-0.4	0.1	-0.5	18.0	18.5
1964	-0.9	0.1	0.1	-1.1	17.5	18.6
1965	-0.2	0.5	0.1	-0.8	16.9	17.7
1966	-0.5	1.5	0.1	-2.1	16.9	19.0
1967	-1.1	1.4	0.1	-2.7	18.0	20.7
1968	-2.9	1.2	0.2	-4.4	17.3	21.6
1969	0.3	1.4	0.1	-1.1	19.4	20.5
1970	-0.3	0.5	0.1	-0.9	19.0	19.9
1971	-2.1	-0.4	0.1	-1.9	17.5	19.4
1972	-2.0	-0.1	0.1	-1.9	17.7	19.6
1973	-1.1	0.9	0.4	-2.4	17.4	19.8
1974	-0.4	0.7	0.5	-1.6	18.1	19.7
1975	-3.4	-1.1	0.1	-2.3	18.2	20.5
1976	-4.3	-1.3	0.2	-3.0	17.5	20.5
1977	-2.7	-0.6	0.2	-2.3	18.2	20.5
1978	-2.7	0.1	0.1	-2.9	18.0	20.9
1979	-1.6	0.4	0.3	-2.3	18.4	20.7
1980	-2.7	-0.6	0.2	-2.2	19.1	21.3
1981	-2.6	-0.9	0.4	-2.0	19.9	21.9
1982	-4.0	-1.8	0.2	-2.1	19.5	21.7
1983	-6.1	-2.2	0.3	-3.7	18.1	21.8
1984	-4.9	-0.7	0.2	-4.3	17.7	22.0
1985	-5.2	-0.3	-0.1	-4.7	17.9	22.7
1986	-5.1	-0.1	0.1	-5.0	17.6	22.7
1987	-3.2	-0.2	0.3	-3.4	18.6	22.0
1988	-3.1	0.2	c	-3.3	18.3	21.6
1989	-2.8	0.5	-0.4	-3.0	18.4	21.3
1990	-3.9	0.3	-0.9	-3.2	18.1	21.3
1991	-4.6	-0.8	-0.3	-3.4	18.2	21.6
1992	-4.7	-1.0	0.1	-3.7	18.0	21.7
1993	-3.9	-0.8	0.5	-3.6	18.1	21.6
1994	-3.0	-0.3	0.1	-2.7	18.5	21.2
1995	-2.3	-0.1	0.4	-2.5	18.8	21.4
1996	-1.4	c	0.2	-1.6	19.3	20.9
1997	-0.3	0.4	0.4	-1.1	19.6	20.7
1998	0.8	0.8	0.2	-0.1	20.2	20.3

SOURCE: Congressional Budget Office.

- a. The budget deficit or surplus is shown as a percentage of actual GDP.  
b. Consists of deposit insurance, receipts from auctions of the electromagnetic spectrum, timing adjustments, asset sales, and contributions from allied nations for Operation Desert Storm (which were received in 1991 and 1992).  
c. Less than 0.05 percent.