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# Appendixes



# Understanding and Measuring the Structural Federal Deficit

The federal budget deficit indicates the amount by which federal spending exceeds federal revenues in a fiscal year. Its size depends on economic conditions and decisions about fiscal policy. The deficit expands automatically during recessions and other periods of exceptionally slow growth and rising unemployment. By contrast, the deficit shrinks automatically during economic recoveries and other periods of exceptionally fast growth and declining unemployment. Because of that sensitivity to cyclical fluctuations, the change in the size of the budget deficit usually is not a good measure of changes in fiscal policy. A different measure is needed to separate the short-term budget effects of economic fluctuations (so-called automatic stabilizers) from the budget effects of changes in tax and spending policies.

To disentangle those effects, economists have constructed a variety of so-called structural budget measures, which adjust the budget for cyclical fluctuations of the economy and other factors. The standardized-employment deficit, for example, is the measure of the structural deficit used in Chapter 1. It shows how large the deficit would be if the economy were operating at full use of its resources. Changes in the standardized-employment deficit from one year to the next indicate whether fiscal policy is stimulating or restricting short-term growth through its effect on total demand for goods and services in the economy. Decreases in the structural deficit indicate restraint on total demand, either directly, through federal purchases of goods and services, or indirectly,

through taxes and transfer payments. Increases indicate a fiscal stimulus. By contrast, the level of the structural deficit is more important than changes in its level for issues of long-run growth, such as national saving and the supply of capital.

For a variety of purposes, however, just adjusting the budget for the effects of the business cycle is not sufficient. For example, the structural deficit does not take into account some economic factors that would reduce the impact of federal borrowing on credit markets and thus interest rates. Also, it provides no information about other important issues, such as the long-term sustainability of current fiscal policy, the long-term effects of taxes and spending programs on the supply of labor and capital and future living standards (supply-side considerations), or the relative burden of taxes and transfer payments on different generations and income groups. Addressing those issues requires other types of measures, some of which are variations of the structural deficit.<sup>1</sup>

Those variations are designed to address differing issues or questions (see Table A-1). For example: *the standardized-employment deficit* simply excludes the effects of the business cycle on the budget. That measure of the structural deficit is a widely used gauge of the stance of fiscal policy (see Chapter 1).

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1. Some of those issues are considered in Chapter 4 of this report and in Congressional Budget Office, *Who Pays and When? An Assessment of Generational Accounting* (November 1995).

**Table A-1.**  
**Measures of the Structural Federal Budget Deficit (By fiscal year)**

	Budget Deficit	Standardized-Employment Budget Deficit	Inflation-Corrected Structural Budget Deficit <sup>a</sup>	Primary Structural Budget Deficit
In Billions of Dollars				
1956	-4	1	-3	-4
1957	-3	1	-7	-5
1958	3	1	-5	-5
1959	13	12	10	6
1960	0	0	-3	-7
1961	3	-2	-4	-9
1962	7	6	3	-1
1963	5	4	1	-4
1964	6	8	5	0
1965	1	7	2	-2
1966	4	16	8	7
1967	9	21	14	11
1968	25	36	25	25
1969	-3	11	-5	-2
1970	3	9	-7	-5
1971	23	21	9	6
1972	23	24	15	9
1973	15	30	9	12
1974	6	19	-19	-3
1975	53	36	5	13
1976	74	54	31	27
1977	54	47	8	17
1978	59	63	17	28
1979	41	52	-22	10
1980	74	57	-24	4
1981	79	53	-19	-16
1982	128	64	24	-21
1983	208	126	100	36
1984	185	158	111	47
1985	212	198	153	69
1986	221	205	183	69
1987	150	129	53	-10
1988	155	147	68	-4
1989	152	148	53	-21
1990	221	168	38	-17
1991	269	187	105	-8
1992	290	224	140	24
1993	255	233	150	34
1994	203	192	102	-11
1995	164	192	100	-41
1996 <sup>b</sup>	144	154	48	-86
1997 <sup>b</sup>	171	177	60	-69
1998 <sup>b</sup>	194	183	65	-74
1999 <sup>b</sup>	219	205	84	-66
2000 <sup>b</sup>	244	230	100	-53
2001 <sup>b</sup>	259	243	104	-54
2002 <sup>b</sup>	285	267	120	-45
2003 <sup>b</sup>	311	291	134	-37
2004 <sup>b</sup>	342	321	153	-25
2005 <sup>b</sup>	376	354	173	-11
2006 <sup>b</sup>	403	380	186	-6

SOURCE: Congressional Budget Office.

NOTE: The three columns showing structural deficits exclude outlays for deposit insurance, allied contributions for Operation Desert Storm, and offsetting receipts from spectrum auctions. Negative numbers indicate a budget surplus.

**Table A-1.**  
**Continued**

	Budget Deficit	Standardized-Employment Budget Deficit	Inflation-Corrected Structural Budget Deficit <sup>a</sup>	Primary Structural Budget Deficit
	<b>As a Percentage of Potential GDP</b>			
1956	-1.0	0.2	-0.6	-1.0
1957	-0.8	0.1	-1.7	-1.1
1958	0.6	0.2	-1.1	-1.0
1959	2.6	2.4	2.0	1.2
1960	-0.1	0	-0.7	-1.3
1961	0.6	-0.4	-0.8	-1.6
1962	1.2	1.0	0.5	-0.2
1963	0.8	0.6	0.1	-0.6
1964	0.9	1.3	0.8	0.0
1965	0.2	1.0	0.3	-0.3
1966	0.5	2.3	1.2	1.0
1967	1.1	2.7	1.8	1.4
1968	3.0	4.3	2.9	3.0
1969	-0.4	1.2	-0.6	-0.2
1970	0.3	0.9	-0.7	-0.5
1971	2.1	2.0	0.8	0.6
1972	2.0	2.1	1.3	0.8
1973	1.2	2.3	0.7	1.0
1974	0.4	1.3	-1.3	-0.2
1975	3.3	2.2	0.3	0.8
1976	4.1	3.0	1.7	1.5
1977	2.7	2.3	0.4	0.8
1978	2.7	2.9	0.8	1.3
1979	1.6	2.1	-0.9	0.4
1980	2.7	2.1	-0.9	0.2
1981	2.5	1.7	-0.6	-0.5
1982	3.7	1.9	0.7	-0.6
1983	5.7	3.4	2.7	1.0
1984	4.8	4.1	2.8	1.2
1985	5.1	4.8	3.7	1.7
1986	5.0	4.7	4.2	1.6
1987	3.2	2.8	1.1	-0.2
1988	3.1	3.0	1.4	-0.1
1989	2.9	2.8	1.0	-0.4
1990	3.9	2.9	0.7	-0.3
1991	4.4	3.1	1.7	-0.1
1992	4.6	3.5	2.2	0.4
1993	3.9	3.5	2.3	0.5
1994	3.0	2.8	1.5	-0.2
1995	2.3	2.7	1.4	-0.6
1996 <sup>b</sup>	1.9	2.0	0.6	-1.1
1997 <sup>b</sup>	2.2	2.2	0.8	-0.9
1998 <sup>b</sup>	2.3	2.2	0.8	-0.9
1999 <sup>b</sup>	2.5	2.4	1.0	-0.8
2000 <sup>b</sup>	2.7	2.5	1.1	-0.6
2001 <sup>b</sup>	2.7	2.5	1.1	-0.6
2002 <sup>b</sup>	2.8	2.7	1.2	-0.4
2003 <sup>b</sup>	3.0	2.8	1.3	-0.3
2004 <sup>b</sup>	3.1	2.9	1.4	-0.2
2005 <sup>b</sup>	3.2	3.1	1.5	-0.1
2006 <sup>b</sup>	3.3	3.1	1.5	0

a. The structural deficit adjusted for inflation was calculated using the consumer price index.

b. Projection based on current policy and capped discretionary spending with inflation.

The structural deficit corrected for inflation incorporates an adjustment for the decline in the value of federal debt caused by inflation. That decline in real wealth may induce bondholders to rebuild their assets by saving more than otherwise and, if so, would temper the effects of federal deficits on interest rates. The primary structural deficit, which excludes federal interest payments in addition to the cyclical component of the deficit, is useful for determining the long-run sustainability of current budget policies.

## The Standardized-Employment Deficit

The Congressional Budget Office (CBO) calculates the standardized-employment deficit--the measure of the structural deficit shown in Figure A-1--by estimating the size of the deficit if the economy were operating at a level consistent with a stable rate of inflation. The lowest rate of unemployment that can be sustained in the context of a stable rate of inflation is known as the nonaccelerating inflation rate of unemployment (NAIRU). That rate depends on many factors, including labor productivity and the shares of

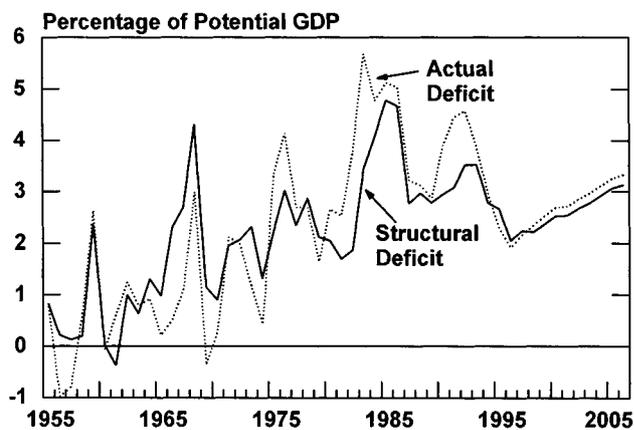
different demographic groups in the labor force. At the NAIRU, wages and prices are not necessarily constant but there is no tendency for their rate of change to accelerate or decelerate. By contrast, if policymakers tried to reduce unemployment below the NAIRU by stimulating total demand, the annual increases in wages and prices would grow because the supply of labor would not be sufficient to satisfy the higher demand for labor. Inflation would continue to increase as long as the actual rate of unemployment remained below the NAIRU. Alternatively, if the rate of unemployment rose and remained above the NAIRU, the rate of inflation would steadily decline, provided other factors--such as oil price shocks--were not also at work. Only if the unemployment rate is at the NAIRU will the inflation rate remain steady.

The output of the economy when its actual unemployment rate is at the NAIRU is known as potential gross domestic product (GDP).<sup>2</sup> A level of output below potential implies that the unemployment rate is above the NAIRU and that the rate of inflation will tend to fall. By contrast, a level of output above potential implies that the unemployment rate is below the NAIRU and that there are upward pressures on the rate of inflation.

Revenues in the standardized-employment budget are computed by estimating what they would be if GDP were equal to potential GDP. Most of the cyclical adjustment of revenues depends on the size of the gap between GDP and potential GDP, but it also reflects the sensitivity of various revenue categories to cyclical movements in the components of taxable income. Changes in the tax structure can affect that sensitivity. For example, if consumption replaced income as the base for the tax system, tax collections would be less sensitive to the business cycle.

Similarly, outlays in the standardized-employment budget are calculated by estimating how much they would be if the unemployment rate were at the NAIRU. The cyclical adjustment of outlays depends on both the size of the unemployment gap and the sensitivity of various types of transfer payments to

**Figure A-1.**  
**The Structural Deficit (By fiscal year)**



SOURCE: Congressional Budget Office.

NOTE: Projections are based on current policy and capped discretionary spending with inflation. Negative numbers indicate a budget surplus.

2. See Congressional Budget Office, *CBO's Method for Estimating Potential Output*, CBO Memorandum (October 1995).

changes in unemployment. The cyclical sensitivity of outlays would be reduced if some entitlement programs became block grants.

A reduction in the cyclical sensitivity of federal revenues and outlays would lessen the automatic stabilizing properties of the federal budget. Those stabilizers automatically stimulate total demand during recessions as revenue collections fall and transfer payments rise. They automatically restrain the economy when it is above its potential.

Other benchmarks for output and unemployment could be used to adjust the federal deficit for the effects of the business cycle. For example, the benchmark for output (and the rate of unemployment) could be a trend line connecting the peaks or troughs of business cycles or some other common point in between, such as the middle-expansion trend that roughly corresponds to the economy's average performance over time.<sup>3</sup> Alternatively, the benchmarks could simply be the level of output and rate of unemployment in the previous year.<sup>4</sup> In varying degrees, all of those benchmarks would serve the same purpose of removing short-term variations in the economic variables that cause most of the movement of the budget deficit during economic downturns and recoveries. But alternative benchmarks would produce different estimates of the size of the structural deficit.

For a given level of actual GDP, a relatively high GDP benchmark implies a larger GDP gap and a larger cyclical deficit. A relatively low GDP benchmark implies the opposite. Since potential GDP usually is higher than the other benchmarks mentioned above, calculations of the structural deficit based on potential GDP usually attribute more of the deficit to cyclical factors than other benchmarks for output do. For a given deficit, the larger the cyclical component, the smaller the structural component.

Potential GDP is used as a benchmark because it corresponds to the highest rate of resource use that does not increase inflation. Departures from potential output are measures of either temporary economic slack (if actual output is below potential output) or temporary excess demand (if actual output is above potential output). When there is economic slack, the rate of inflation tends to decline (assuming no inflationary effects from other factors); when there is excess demand, the rate of inflation tends to rise.

But potential GDP also has some shortcomings as a benchmark. First, estimates of potential GDP are subject to considerable uncertainty and cannot be verified by direct measurement.<sup>5</sup> Second, the economy has generally operated below its estimated potential, which implies that, on average, cyclical deficits are not matched by cyclical surpluses. Consequently, the implied cyclical component of the federal debt grows over time rather than averaging out to zero. Finally, there is some debate about whether cyclical shocks to GDP have permanent rather than just temporary effects; the evidence is inconclusive.<sup>6</sup> If the effects are permanent, estimates of the structural deficit based on potential GDP will be misleading because the cyclical component of the deficit will not be temporary.

The estimates of the change in the structural deficit from one year to the next, however, are not particularly sensitive to the choice of a benchmark. And it is the change rather than the level of the structural deficit that indicates whether fiscal policy is stimulating or restraining short-term economic growth. Restraint is indicated when the structural deficit falls as a percentage of potential output (or some other

3. The construction of the middle-expansion trend is described in Frank de Leeuw and Thomas M. Holloway, "Cyclical Adjustment of the Federal Budget and Federal Debt," *Survey of Current Business*, vol. 63 (December 1983), pp. 25-40.

4. That alternative is discussed in Olivier Blanchard, *Suggestions for a New Set of Fiscal Indicators*, Economics and Statistics Department Working Paper (Paris: Organization for Economic Cooperation and Development, 1991).

5. Part of that uncertainty stems from uncertainty about the level of the NAIRU. See Congressional Budget Office, *The Economic and Budget Outlook: An Update* (August 1994), Appendix B.

6. See Charles R. Nelson and Charles I. Plosser, "Trends and Random Walks in Macroeconomic Time Series: Some Evidence and Implications," *Journal of Monetary Economics*, vol. 10, no. 2 (September 1982), pp. 139-162; Mark W. Watson, "Univariate Detrending Methods with Stochastic Trends," *Journal of Monetary Economics*, vol. 18, no. 1 (July 1986), pp. 49-75; and Olivier Jean Blanchard and Danny Quah, "The Dynamic Effects of Aggregate Demand and Supply Disturbances," *American Economic Review*, vol. 79, no. 4 (September 1989), pp. 655-673.

benchmark); stimulus is indicated when it rises.<sup>7</sup> Thus, estimates of the stance of fiscal policy based on different benchmarks are likely to differ by less than the estimates of the size of the structural deficit do.

Although the cyclical adjustment is the most important for calculating the structural deficit, CBO makes other modifications. For example, outlays for deposit insurance are excluded because they mainly reflect exchanges of assets that have no contemporaneous economic effect. That also is true of receipts from such activities as auctions of the electromagnetic spectrum. Also, in 1991 and 1992 the allied contributions for Operation Desert Storm were excluded. From time to time, other adjustments have been made to take into account the difference between the economic and budget impacts of other fiscal actions, including some types of tax changes.

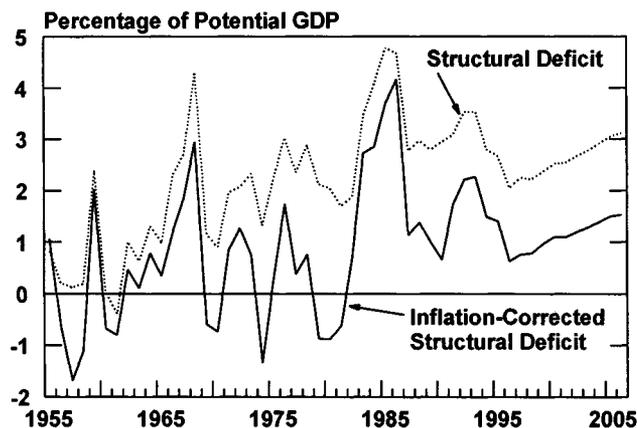
Although movements in the standardized-employment deficit measure the stance of fiscal policy, the estimated impact of fiscal policy on short-term growth depends on the underlying assumptions about how the economy works. In some economic models, for example, changes in fiscal policy may have little or no effect on total demand for goods and services because deficit-financed policy changes may be fully offset by increases in private saving. Under that assumption, tax cuts would not generate additional consumer spending that would otherwise raise short-term growth. But that result is based on extreme theoretical assumptions. In most models of the economy, changes in fiscal policy affect total demand not only directly through federal purchases of goods and services, but also indirectly through taxes, transfer payments, and federal debt. The standardized-employment deficit, however, does not weight the components of taxes, spending, and federal debt in an attempt to distinguish their relative impact on total demand for goods and services.

7. For an analysis of cases in which fiscal restraint may increase rather than reduce short-term growth, see Francesco Giavazzi and Marco Pagano, "Non-Keynesian Effects of Fiscal Policy Changes: International Evidence and the Swedish Experience" (paper presented at the International Monetary Fund Research Seminar, Washington, D.C., November 6, 1995); and Giuseppe Bertola and Allan Drazen, "Trigger Points and Budget Cuts: Explaining the Effects of Fiscal Austerity," *American Economic Review*, vol. 83, no. 1 (March 1993), pp. 11-26.

Even in models in which fiscal policy matters, many factors come into play when determining the impact of fiscal policy on short-term growth. For example, many people are likely to base their current demand for goods and services, not only on current fiscal policy, but also on their expectations of future policy. An expectation of steady progress toward a balanced budget could lower interest rates in advance and thus stimulate some parts of total demand that are sensitive to borrowing costs. That drop in interest rates would also tend to reduce the international value of the dollar, making U.S. exports cheaper to foreigners and U.S. imports more expensive at home. Such developments would tend to lessen the restrictive effects of fiscal restraint on total demand. The structural deficit, however, does not reflect the effects of those expectations, which would require assumptions about the nature of future policy actions and their credibility.

In summary, estimates of the structural deficit can differ because of different assumptions about the NAIRU and potential GDP (or other benchmarks) and about the responses of revenues and outlays to fluctuations in output and unemployment. Those assumptions are less likely to affect measures of the changes in fiscal policy from one year to the next.

**Figure A-2.**  
**The Structural Deficit Corrected for Inflation**  
**(By fiscal year)**



SOURCE: Congressional Budget Office.

NOTE: Projections are based on current policy and capped discretionary spending with inflation. Negative numbers indicate a budget surplus.

How much those changes affect economic activity depends on how businesses and consumers respond.

## The Structural Budget Deficit Corrected for Inflation

To assess the effects of fiscal policy on real interest rates, the structural deficit frequently is adjusted for the inflation-induced capital losses experienced by holders of federal debt.<sup>8</sup> If owners of Treasury securities increase their savings to offset those capital losses, the impact of federal borrowing on national saving and real interest rates will be less than indicated by the standardized-employment deficit (see Figure A-2).

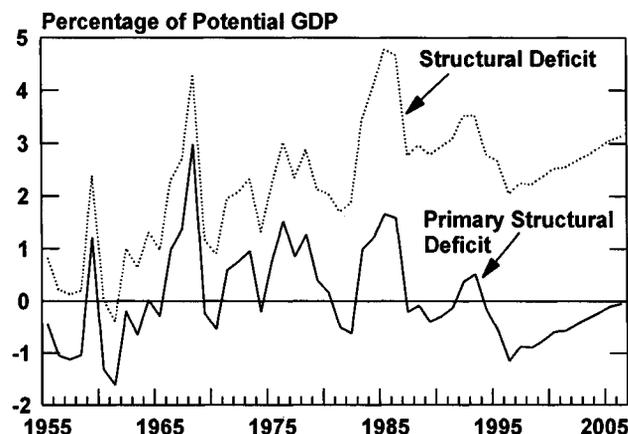
The sizes of those capital losses can be estimated by multiplying the outstanding stock of publicly held federal debt by the rate of inflation. For example, using a 3 percent rate of inflation, the capital loss on \$3 trillion of publicly held federal debt would be \$90 billion (0.03 times \$3 trillion). That capital loss would transform a \$200 billion structural deficit into a \$110 billion structural deficit that is corrected for inflation. Unless the rate of inflation changes significantly from year to year, however, adjusting the structural deficit for capital losses on federal debt related to inflation will have little effect on the change in the structural deficit, which is the key measure of the stance of fiscal policy.

## The Primary Structural Budget Deficit

When interest payments on the federal debt are removed from the structural deficit, the result is called the primary structural deficit (see Figure A-3). It goes one step beyond the measure that is corrected

8. See Robert Eisner, *How Real Is the Federal Deficit?* (New York: The Free Press, 1986). The study also considers how changes in interest rates affect the wealth and savings of federal bondholders.

**Figure A-3.**  
The Primary Structural Deficit (By fiscal year)



SOURCE: Congressional Budget Office.

NOTE: Projections are based on current policy and capped discretionary spending with inflation. Negative numbers indicate a budget surplus.

for inflation by excluding real interest payments as well as payments that simply compensate bondholders for inflation. Because legislators cannot directly control interest payments, the primary structural deficit may be a better indicator of changes in fiscal policy than measures that include interest payments.<sup>9</sup>

More important, however, the primary structural deficit helps to determine the sustainability of current fiscal policy. Fiscal policy cannot be sustained in the long run if it generates a federal debt that will become too large for the economy to accommodate. As discussed in Chapter 4, an unchecked rise in the debt-to-output ratio would increasingly crowd out the stock of private capital, increase the nation's indebtedness to foreigners, raise interest rates, and possibly result in a currency crisis. Although it is difficult to determine how much more federal debt can be absorbed, the current debt-to-output ratio of about 50 percent in the United States is large for peacetime, and much larger ratios have emerged only during periods of war. If current fiscal policy is not sustainable, actions must be taken sooner or later to increase taxes or reduce spending enough to keep the federal

9. For a discussion of federal interest payments, see Congressional Budget Office, *Federal Debt and Interest Costs* (May 1993).

debt from growing additionally in relation to the size of the economy.

Whether the fiscal structure is sustainable depends on three factors: the size of the primary structural deficit or surplus, the gap between the potential rate of economic growth and the average rate of interest paid on federal debt (both rates measured either in nominal or in real terms), and the size of the federal debt already accumulated. Fiscal policy is always sustainable when there is a primary structural surplus and the interest rate is less than the growth rate. (When the total budget is in surplus, the size of the federal debt actually shrinks.) By contrast, fiscal policy is never sustainable when a primary structural deficit is combined with an interest rate greater than the growth rate.

In the other two cases, fiscal policy may or may not be sustainable. When the economy's growth rate exceeds the interest rate but a primary structural deficit exists instead of a surplus, the debt-to-output ratio could rise, fall, or remain unchanged. It is more likely to reach intolerable levels when the primary structural deficit is large and the growth rate barely exceeds the interest rate. For example, when the growth rate exceeds the interest rate by only 1 percentage point, a primary structural deficit equal to 1 percent of potential GDP eventually would put the

federal debt at 100 percent of potential GDP. If the growth rate is more than 1 percentage point larger than the interest rate and the primary structural deficit is less than 1 percent of potential GDP, the federal debt would not reach 100 percent of potential GDP.

Finally, when the economy's growth rate is less than the interest rate, fiscal policy is sustainable only if there is a primary structural surplus. And that surplus must be large enough to offset the growth in interest payments that exceeds the growth of the economy. For any growth rate of the economy, the required size of the surplus rises with the interest rate and the existing size of the debt (see Table A-2). In a growing economy, however, balancing the total budget (including interest payments) would be unnecessary to make fiscal policy sustainable.

Under current policies, the primary structural surplus that now amounts to about 1 percent of potential GDP would be replaced by large primary structural deficits in the next century--the carryover from previous actions in conjunction with demographic developments (see Chapter 4). Thus, some adjustments in tax and spending rates will be needed to make fiscal policy sustainable. The longer the delay in making those changes, the larger the adjustments that would be needed because the additional debt accumulated would increase the size of the pri-

**Table A-2.**  
**Primary Structural Surplus Needed to Maintain an Initial Debt-to-Output Ratio Under Different Economic Assumptions (As a percentage of potential GDP)**

Initial Ratio of Federal Debt to Potential GDP	Interest Rate Minus Growth Rate			
	1 Percentage Point	2 Percentage Points	3 Percentage Points	4 Percentage Points
0.5	0.5	1.0	1.5	2.0
0.6	0.6	1.2	1.8	2.4
0.7	0.7	1.4	2.1	2.8
0.8	0.8	1.6	2.4	3.2
0.9	0.9	1.8	2.7	3.6
1.0	1.0	2.0	3.0	4.0

SOURCE: Congressional Budget Office.

NOTE: A primary structural surplus exists when structural budget revenues are greater than structural budget noninterest outlays. Measured in dollars, the size of the primary structural surplus would have to be at least  $(r-g)D$ , where  $r$  is the interest rate,  $g$  is the potential growth rate, and  $D$  is the outstanding stock of federal debt. Thus, if the interest rate was 1 percentage point higher than the growth rate, the primary structural surplus would have to be at least 1 percent of the debt.

mary structural surplus that is necessary for fiscal sustainability.

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## Structural Deficits in Other OECD Countries

A broader view of fiscal policy considers not only what is happening in the United States but also policy changes in other countries. Fiscal stimulus abroad tends to raise demand for U.S. exports. Unsustainable fiscal policies in other countries put upward pressure on their interest rates, which tends to appreciate their currencies and worsen their trade balances. If large countries have unsustainable policies, world interest rates are likely to be higher. Over time, unsustainable fiscal policies abroad not only crowd out capital formation there, but also tend to reduce worldwide capital formation.

The Organization for Economic Cooperation and Development (OECD) calculates the structural deficit for most of its member countries (see Table A-3). Because it uses somewhat different data, concepts, and methodologies, its estimates for the United States differ from those presented above. Nevertheless, the calculations provide information for comparing the fiscal policies of different countries.

Most of the OECD countries improved their fiscal positions over the past few years. But the United States has made more progress than most other countries. As indicated above, that progress would be overturned in the next century under current policies. In the other OECD countries, further improvement depends on the strength of their dedication to fiscal discipline.

The 15 countries of the European Union have agreed to maintain fiscal discipline, whether or not they are initial members of a single European currency system. That commitment was reaffirmed at the Madrid summit in November 1995. Under the Maastricht Treaty, member countries agreed to avoid excessive government deficits, specifying a reference value of 3 percent of GDP. A common interpretation holds that the reference value allows for the effects of recessions on budget deficits. Moreover, European authorities have begun to discuss ways in which budgetary discipline could be maintained after a single currency is adopted. Under one suggestion, participants in the proposed currency union would aim to keep fiscal deficits below 1 percent of GDP in normal times.<sup>10</sup> For most of the countries in the European Union, meeting that guideline would produce primary structural surpluses large enough to ensure fiscal sustainability, whereas recent primary structural balances generally would not (see Table A-4).

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10. See Organization for Economic Cooperation and Development, *OECD Economic Outlook* (Paris: OECD, December 1995), p. 19.

**Table A-3.**  
**Structural Budget Balances in OECD Countries (By calendar year, as a percentage of potential GDP)**

	1980	1981	1982	1983	1984	1985	1986	1987
United States <sup>a</sup>	-1.2	-0.6	-1.5	-2.5	-2.8	-3.2	-3.5	-2.7
Japan	-4.7	-4.0	-3.5	-2.9	-1.4	-0.4	0.2	1.7
Germany	-3.9	-3.5	-1.5	-0.8	-0.7	-0.2	-0.6	-0.9
France	-0.4	-1.5	-3.0	-2.7	-1.7	-1.6	-1.5	-0.6
Italy	-9.7	-12.2	-11.1	-9.9	-10.7	-11.7	-11.0	-10.8
United Kingdom	-3.2	-0.7	-0.1	-1.8	-2.6	-2.2	-2.9	-3.2
Canada	-2.9	-1.5	-2.6	-3.9	-5.2	-6.7	-5.5	-4.6
Australia	-1.9	-0.9	0.5	-2.0	-2.8	-2.9	-2.7	-0.4
Austria	-2.9	-1.5	-2.5	-3.1	-1.3	-1.5	-2.5	-3.0
Belgium	-11.6	-13.8	-11.4	-10.9	-8.7	-7.8	-7.7	-5.8
Denmark	-3.4	-5.4	-8.0	-6.4	-4.4	-3.3	1.7	1.7
Finland	2.2	3.6	1.8	0.6	2.9	2.7	3.3	0.3
Greece	-3.8	-8.8	-5.7	-5.6	-7.2	-10.8	-9.6	-8.3
Ireland	-12.6	-13.6	-12.5	-8.9	-7.7	-9.2	-7.6	-5.7
Netherlands	-5.1	-5.0	-4.4	-3.9	-4.9	-3.8	-5.4	-5.3
Norway	-4.2	-4.4	-4.2	-5.5	-3.5	-2.4	-0.6	-0.3
Portugal	4.7	-11.9	-8.6	-10.1	-5.2	-5.3	-4.9	-4.9
Spain	-1.0	-1.9	-3.9	-3.0	-3.4	-5.3	-4.8	-3.4
Sweden	-4.4	-4.6	-5.9	-4.1	-3.9	-5.1	-2.9	1.7
Total <sup>b</sup>	-2.9	-2.8	-2.9	-3.2	-3.1	-3.2	-3.1	-2.3

SOURCE: Organization for Economic Cooperation and Development, *OECD Economic Outlook* (Paris: OECD, December 1995).

NOTE: The data are for general governments, which combine the central government with other levels of government. Negative numbers indicate a deficit and positive numbers a surplus.

**Table A-3.**  
**Continued**

	1988	1989	1990	1991	1992	1993	1994	Estimated 1995
United States <sup>a</sup>	-2.6	-2.2	-3.0	-3.4	-3.8	-3.1	-2.2	-2.0
Japan	1.6	2.0	1.7	1.5	0.3	-1.6	-2.9	-2.2
Germany	-1.8	0.1	-3.1	-4.6	-4.3	-2.8	-2.1	-2.5
France	-1.3	-1.8	-2.2	-2.0	-3.5	-3.8	-4.1	-3.5
Italy	-11.0	-10.7	-11.7	-10.7	-9.3	-7.9	-7.4	-6.1
United Kingdom	-1.9	-2.0	-3.1	-2.2	-4.3	-5.7	-5.3	-3.6
Canada	-4.4	-4.7	-4.7	-5.0	-4.9	-4.7	-4.0	-3.1
Australia	0.6	0.4	0.4	-1.3	-2.2	-2.6	-4.1	-1.9
Austria	-2.9	-3.6	-3.2	-3.2	-2.1	-3.0	-3.7	-5.1
Belgium	-6.4	-6.6	-6.6	-7.4	-7.6	-5.0	-3.7	-2.8
Denmark	0.6	0	-0.6	-0.9	-0.9	-2.3	-2.5	-1.4
Finland	2.4	3.4	2.7	-0.1	-2.2	-3.8	-2.6	-3.8
Greece	-11.7	-15.4	-13.6	-11.5	-11.4	-10.9	-10.2	-8.5
Ireland	-1.6	-0.3	-2.4	-1.3	-1.1	-0.3	-1.0	-2.2
Netherlands	-3.8	-5.1	-6.4	-3.9	-4.5	-2.2	-2.5	-2.6
Norway	0.8	-0.7	-1.4	-4.0	-5.9	-6.6	-6.0	-5.3
Portugal	-3.8	-3.4	-7.2	-8.0	-4.3	-6.6	-4.2	-3.8
Spain	-4.6	-5.1	-6.7	-7.1	-5.0	-6.1	-5.0	-4.6
Sweden	0.5	2.1	1.4	-2.2	-7.0	-9.7	-7.6	-6.0
Total <sup>b</sup>	-2.4	-2.1	-3.0	-3.3	-3.7	-3.7	-3.3	-2.8

a. These estimates differ from those in Table A-1 because the OECD uses different data, concepts, and methodologies.

b. Total is the weighted average for the above countries.

**Table A-4.**  
**Primary Structural Budget Balances in OECD Countries (By calendar year, as a percentage of potential GDP)**

	1980	1981	1982	1983	1984	1985	1986	1987
United States <sup>a</sup>	0	0.9	0.1	-0.9	-0.8	-1.1	-1.5	-0.7
Japan	-3.7	-2.8	-2.1	-1.3	-0.3	1.3	1.8	3.1
Germany	-2.6	-1.9	0.4	1.4	1.5	2.1	1.7	1.5
France	0.4	-0.3	-1.8	-1.0	0.2	0.4	0.6	1.5
Italy	-4.8	-6.6	-4.6	-3.1	-3.4	-4.5	-3.3	-3.4
United Kingdom	-0.1	2.5	3.0	1.2	0.6	1.2	0.2	-0.1
Canada	-1.0	0.8	0.1	-1.2	-1.8	-2.7	-1.3	-0.3
Australia	-1.0	0	1.4	-0.9	-1.2	-0.9	-0.5	1.7
Austria	-1.2	0.4	-0.2	-0.8	1.3	1.3	0.3	0
Belgium	-5.9	-6.5	-2.8	-2.3	0.4	1.8	2.4	3.8
Denmark	-2.9	-3.7	-5.4	-2.2	1.4	2.9	7.0	6.2
Finland	1.2	2.5	0.8	-0.4	2.0	1.8	2.3	-0.6
Greece	-1.4	-5.7	-3.3	-2.3	-2.9	-5.7	-4.7	-1.6
Ireland	-9.1	-9.0	-7.1	-3.6	-2.0	-2.9	-1.3	-0.7
Netherlands	-2.7	-2.0	-0.7	0.2	-0.5	0.9	-0.7	-0.4
Norway	-4.0	-4.6	-4.5	-5.8	-4.5	-3.9	-2.6	-2.8
Portugal	7.6	-7.0	-3.7	-4.6	1.8	2.7	3.5	2.9
Spain	-0.7	-1.6	-3.5	-2.3	-1.9	-2.7	-1.6	-0.5
Sweden	-4.8	-4.3	-4.3	-2.2	-1.5	-2.0	-0.6	3.5

SOURCE: Congressional Budget Office calculations based on Annex Tables 11, 31, and 33 in Organization for Economic Cooperation and Development, *OECD Economic Outlook* (Paris: OECD, December 1995). Because of data limitations, no calculations were made for the average of all countries.

**Table A-4.**  
**Continued**

	1988	1989	1990	1991	1992	1993	1994	Estimated 1995
United States <sup>a</sup>	-0.7	-0.2	-0.9	-1.2	-1.7	-1.2	-0.3	0.1
Japan	2.7	2.9	2.4	1.9	0.6	-1.3	-2.5	-1.7
Germany	0.5	2.3	-1.1	-2.5	-1.6	-0.2	0.6	0.8
France	0.8	0.4	0.2	0.5	-0.7	-0.9	-1.1	-0.4
Italy	-3.3	-2.1	-2.4	-0.9	1.5	3.2	2.5	3.9
United Kingdom	1.0	0.5	-0.7	-0.1	-2.3	-3.6	-2.8	-0.8
Canada	0.1	0.3	0.7	0.0	-0.3	-0.2	0.5	1.8
Australia	2.4	2.3	2.2	0.3	-0.9	-1.5	-2.1	0.1
Austria	0.3	-0.5	0.1	0.1	1.3	0.5	-0.3	-1.6
Belgium	2.9	3.1	3.4	2.2	2.4	4.5	5.7	5.6
Denmark	4.8	3.8	2.7	2.5	1.9	1.2	0.7	2.2
Finland	1.5	2.1	0.8	-2.1	-4.1	-4.2	-2.0	-3.1
Greece	-4.2	-7.7	-3.4	-1.8	0.6	1.9	4.1	4.5
Ireland	4.4	5.5	3.7	4.3	4.0	4.3	3.4	2.1
Netherlands	1.0	-0.7	-1.9	0.8	0	2.5	2.1	2.1
Norway	-2.5	-2.8	-2.7	-5.3	-7.1	-7.4	-6.1	-5.4
Portugal	3.3	3.2	1.8	0.8	3.5	0	1.5	1.8
Spain	-1.5	-1.9	-3.3	-3.4	-1.0	-1.3	-0.3	0.2
Sweden	1.5	2.6	1.5	-2.1	-6.8	-8.6	-5.5	-3.4

NOTE: The data are for general governments, which combine the central government with other levels of government. Negative numbers indicate a deficit and positive numbers a surplus.

a. These estimates differ from those in Table A-1 because the OECD uses different data, concepts, and methodologies.

