Congressional Budget Office

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The Effects of Automatic Stabilizers on the Federal Budget as of 2013

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During recessions, federal tax liabilities and, therefore, revenues decline automatically with the reduction in output and income. In addition, some federal outlays—to pay unemployment insurance benefits, for example—automatically increase. Such reductions in revenues and increases in outlays—known as automatic stabilizers—help bolster economic activity during downturns, but they also temporarily increase the federal budget deficit. Conversely, when real (inflation-adjusted) gross domestic product (GDP) moves up closer to the maximum sustainable output of the economy (termed potential GDP), revenues automatically rise and outlays automatically fall. Under those circumstances, automatic stabilizers offer a smaller boost to economic activity and thereby slow its growth. (Those effects of automatic stabilizers are in addition to the effects of any legislative changes in tax and spending policies.)

The Congressional Budget Office (CBO) uses statistical techniques to estimate the effects of the business cycle on federal revenues and outlays and, thus, on federal budget deficits. According to CBO's estimates, automatic stabilizers added significantly to the budget deficit—and thereby helped to strengthen economic activity—in fiscal years 2009 through 2012. Given CBO's economic and budgetary projections under current law, the agency expects that automatic stabilizers will continue to add significantly to the budget deficit and to support economic activity in 2013 and 2014 but that their effects on the budget and the economy will decline significantly from 2015 through 2018 in response to improving economic conditions.

How Large Were the Budgetary Effects of Automatic Stabilizers Last Year?

In fiscal year 2012, CBO estimates, automatic stabilizers added $386 billion to the federal budget deficit, an amount equal to 2.3 percent of potential GDP (see Table 1 and Table 2).[1] That outcome marked the fourth consecutive year that automatic stabilizers added to the deficit by an amount equal to or exceeding 2.0 percent of potential GDP, an impact that had previously been equaled or exceeded only twice in the past 50 years, in fiscal years 1982 and 1983 (see Figure 1). (Those historical calculations, as well as the projections presented below, involve potential GDP rather than actual GDP because potential GDP excludes fluctuations that are attributable to the business cycle.)

How Large Will the Budgetary Effects of Automatic Stabilizers Be Over the Next Decade?

According to CBO's projections under current law, the contribution of automatic stabilizers to the federal budget deficit, measured as a share of potential GDP, will rise slightly in fiscal year 2013, to 2.5 percent. That contribution accounts for about half of the estimated deficit this year.[2] The contribution will remain at 2.5 percent of potential GDP in 2014, accounting for roughly three-quarters of the projected deficit next year.

CBO expects that the budgetary effects of automatic stabilizers will remain large because of the continued weakness in the economy, which is caused in part by the fiscal tightening that is occurring in calendar year 2013 under current law. That tightening includes the reduction in federal spending resulting from the sequestration that went into effect on March 1; the expiration of the payroll tax cut that was in place in 2011 and 2012; and the increase in tax rates on income above certain thresholds starting in 2013.

After 2014, the projected effect of automatic stabilizers on the budget deficit shrinks steadily, dropping to 0.2 percent of potential GDP in 2017 and about zero in 2018. In

1. For a description of a methodology for estimating automatic stabilizers that is similar to CBO's methodology, see Darrel Cohen and Glenn Follette, "The Automatic Fiscal Stabilizers: Quietly Doing Their Thing," *Economic Policy Review,* Federal Reserve Bank of New York, vol. 6, no. 1 (April 2000), pp. 35–68, http://ideas.repec.org/a/fip/fednep/y2000iaprp35-67nv.6no.1.html. See also Glenn Follette and Byron Lutz, *Fiscal Policy in the United States: Automatic Stabilizers, Discretionary Fiscal Policy Actions, and the Economy*, Finance and Economic Discussion Series, No. 2010–43 (Federal Reserve Board, June 2010), http://ideas.repec.org/p/fip/fedgfe/2010-43.html. CBO's estimates of automatic stabilizers reflect the assumption that discretionary spending and interest payments do not have automatic responses to the business cycle.

2. CBO's most recent baseline projections are presented in Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2013 to 2023* (February 2013), www.cbo.gov/publication/43907.

2018 and beyond, CBO projects, output will equal its potential, so the automatic stabilizers will have essentially no effect on the budget.

How Large Will Budget Deficits Without Automatic Stabilizers Be Over the Next Decade?

The federal budget deficit or surplus with the effects of automatic stabilizers filtered out is an estimate of what the deficit or surplus would be if GDP was at its potential, the unemployment rate was at a corresponding level, and all other factors were unchanged. (The "budget deficit without automatic stabilizers" has also been referred to as the "cyclically adjusted deficit" or "structural deficit.") That measure helps analysts evaluate the extent to which changes in the budget deficit or surplus are caused by cyclical developments in the economy and thus are likely to prove temporary rather than enduring.

Under current law, CBO projects, the budget deficit without automatic stabilizers will equal 2.5 percent of potential GDP in fiscal year 2013, down from 4.3 percent in 2012 and even larger values in 2009 through 2011 (see Figure 2). About two-thirds of the drop between 2012 and 2013 results from a projected rise in revenues stemming from the increases in tax rates and other factors apart from automatic stabilizers. The other third reflects mostly a decline in discretionary outlays.

After 2013, the projected budget deficit without automatic stabilizers falls to 1.0 percent of potential GDP in 2014 and 0.4 percent in 2015. That outcome would represent six consecutive years of decline; during the past 50 years, the only steady decrease that lasted longer was the one that occurred from 1990 to 2000. Virtually all of the projected decline over the next two years is attributable to a rise in revenues apart from the effects of automatic stabilizers; those revenues climb from 18.2 percent of potential GDP in 2013 to 19.3 percent in 2014 and 20.1 percent in 2015. More than half of that total increase results from several recent and scheduled changes in tax rules, and much of the remaining increase stems from an expected rebound in the average tax rate on corporate profits from recent historically low levels. Outlays without automatic stabilizers are projected to fall by 0.3 percent of potential GDP in 2014 but then rise by the same amount in 2015.

Following those declines, the projected budget deficit without automatic stabilizers rises from 1.5 percent of potential GDP in 2016 to 2.9 percent in 2018. That increase primarily reflects a decline in revenues (reflecting several factors, including a reduction in the Federal Reserve's remittances of its earnings as interest rates rise), and an increase in federal interest payments (again, as interest rates rise to more normal levels). For 2018, CBO projects that automatic stabilizers will have virtually no effect on the budget because GDP is assumed to be at its potential level; consequently, the projected budget deficit without automatic stabilizers is essentially the same as the projected budget deficit.[3]

Why Do Budget Deficits Appear Cyclical Even After the Estimated Effects of Automatic Stabilizers Are Filtered Out?

Despite adjustments to revenues and outlays for the effects of the business cycle, the estimated deficit without automatic stabilizers can exhibit movements that are correlated with the business cycle. In particular, the estimated deficit without automatic stabilizers tends to increase during times of recession and early in a recovery.

That pattern probably reflects several factors. One factor is that estimates of the budgetary impact of automatic stabilizers may only partly remove the effects of certain changes (such as large fluctuations in the stock market) that have not had a sufficiently regular relationship to business cycles to be viewed as mostly cyclical. Another factor is that, to varying degrees, policymakers often choose to support a weak economy by cutting taxes or increasing federal spending, both of which increase the deficit (or reduce the surplus). Such responses to recessions and high unemployment require legislation, so their budgetary effects are not automatic, and they are not viewed as automatic stabilizers. During the past several years, for example, lawmakers have enacted the American Taxpayer Relief Act of 2012 (Public Law 112-240); the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312); the American Recovery and Reinvestment Act of 2009 (P.L. 111-5); the Emergency Economic Stabilization Act of 2008 (P.L. 110-343), which created the Troubled Asset Relief Program (TARP); and the Housing and Economic Recovery Act of 2008 (P.L. 111-289).

This report supplements the series of reports on the state of the budget and the economy that the Congressional Budget Office (CBO) issues every year. In accordance with CBO's mandate to provide objective, impartial analysis, the report makes no recommendations.

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John Skeen edited the report, and Maureen Costantino prepared it for publication. An electronic version is available on CBO's website (www.cbo.gov).

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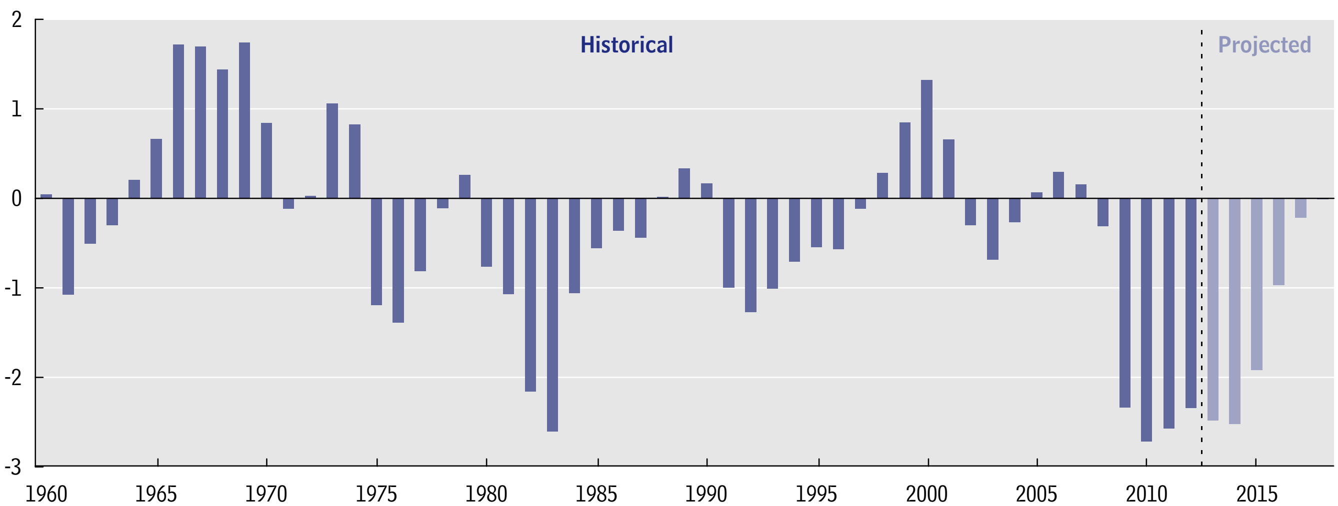
3. The estimated budgetary impact of automatic stabilizers in fiscal year 2018 is not precisely zero because the estimating procedure includes some small lagging effects from the economy's operating somewhat below its potential during part of fiscal year 2017.

Figure 1. Return to Reference

Contributions of Automatic Stabilizers to Budget Deficits and Surpluses

(Percentage of potential gross domestic product)



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

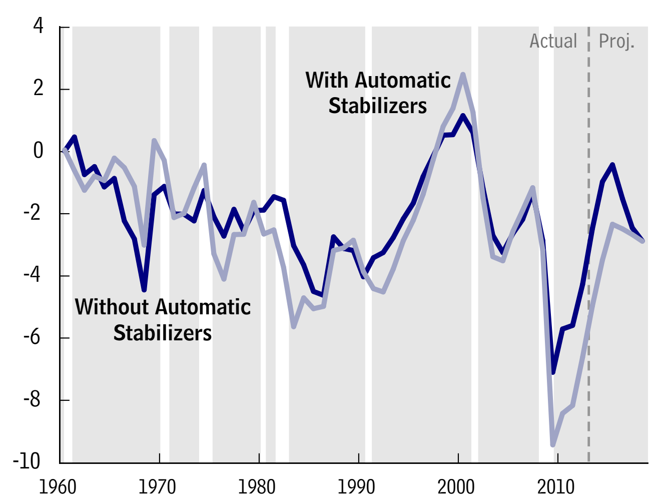
Notes: Automatic stabilizers are automatic changes in revenues and outlays that are attributable to cyclical movements in real (inflation-adjusted) output and unemployment.

Potential gross domestic product is the maximum sustainable output of the economy.

Figure 2. Return to Reference

Budget Deficits and Surpluses With and Without Automatic Stabilizers

(Percentage of potential gross domestic product)



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

Notes: Automatic stabilizers are automatic changes in revenues and outlays that are attributable to cyclical movements in real (inflation-adjusted) output and unemployment.

Potential gross domestic product is the maximum sustainable output of the economy.

The white vertical bars indicate periods of recession, which extend from the peak of a business cycle to its trough. The National Bureau of Economic Research establishes dates on which recessions begin and end. The most recent recession ended in the second quarter of 2009. The dashed vertical line separates actual from projected data.

Table 1.

Return to Reference

Budget Deficit or Surplus With and Without Automatic Stabilizers and Related Series, Fiscal Years 1960 to 2018, in Billions of Dollars

	Budget Deficit (-) or Surplus With Automatic Stabilizers	−	Automatic Stabilizers	=	Budget Deficit (-) or Surplus Without Automatic Stabilizers	Budget Revenues and Outlays Without Automatic Stabilizers		GDP Gap[a]	Unemployment Gap[b] (Percent)
						Revenues	Outlays		
1960	*		*		*	93	92	-1	-0.2
1961	-3		-6		3	100	97	-18	0.9
1962	-7		-3		-4	102	106	-7	0.5
1963	-5		-2		-3	108	111	-6	0.1
1964	-6		1		-7	111	119	5	-0.1
1965	-1		4		-6	113	119	13	-0.7
1966	-4		12		-16	120	136	38	-1.7
1967	-9		13		-22	138	160	36	-2.0
1968	-25		12		-37	143	181	32	-2.0
1969	3		16		-13	174	187	38	-2.4
1970	-3		8		-11	187	198	15	-1.9
1971	-23		-1		-22	189	211	-6	-0.2
1972	-23		*		-24	207	231	1	-0.1
1973	-15		13		-28	219	247	41	-0.9
1974	-6		12		-18	254	272	26	-1.2
1975	-53		-19		-34	296	329	-60	1.2
1976	-74		-25		-49	318	367	-58	1.8
1977	-54		-16		-37	368	406	-36	1.1
1978	-59		-2		-57	402	459	-4	**
1979	-41		6		-47	459	506	12	-0.4
1980	-74		-21		-53	536	588	-64	0.6
1981	-79		-33		-45	627	673	-72	1.2
1982	-128		-74		-54	682	736	-210	3.0
1983	-208		-96		-112	686	798	-251	4.1
1984	-185		-42		-144	705	848	-97	1.8
1985	-212		-23		-189	754	943	-55	1.2
1986	-221		-16		-205	782	987	-38	1.0
1987	-150		-21		-129	874	1,003	-53	0.4
1988	-155		1		-156	910	1,066	5	-0.3
1989	-153		18		-170	976	1,147	44	-0.7
1990	-221		9		-230	1,024	1,254	15	-0.5
1991	-269		-61		-208	1,110	1,319	-175	0.8
1992	-290		-82		-209	1,162	1,371	-189	1.7
1993	-255		-68		-187	1,215	1,402	-160	1.5
1994	-203		-50		-153	1,304	1,457	-106	0.9
1995	-164		-41		-123	1,391	1,514	-105	0.3
1996	-107		-44		-63	1,496	1,559	-105	0.2
1997	-22		-9		-12	1,589	1,602	-9	**
1998	69		24		45	1,702	1,657	57	-0.5
1999	126		76		49	1,757	1,708	182	-0.7

Continued

Table 1. **Continued**

Budget Deficit or Surplus With and Without Automatic Stabilizers and Related Series, Fiscal Years 1960 to 2018, in Billions of Dollars

	Budget Deficit (-) or Surplus With Automatic Stabilizers	− Automatic Stabilizers	= Budget Deficit (-) or Surplus Without Automatic Stabilizers	Budget Revenues and Outlays Without Automatic Stabilizers: Revenues	Budget Revenues and Outlays Without Automatic Stabilizers: Outlays	GDP Gap[a]	Unemployment Gap[b] (Percent)
2000	236	126	110	1,908	1,797	284	-1.0
2001	128	66	62	1,928	1,866	107	-0.7
2002	-158	-32	-126	1,877	2,003	-89	0.7
2003	-378	-76	-301	1,848	2,149	-189	1.0
2004	-413	-32	-381	1,907	2,288	-60	0.6
2005	-318	8	-327	2,145	2,471	37	0.2
2006	-248	38	-286	2,373	2,659	96	-0.3
2007	-161	22	-182	2,552	2,734	36	-0.5
2008	-459	-45	-414	2,561	2,975	-149	0.2
2009	-1,413	-350	-1,063	2,396	3,459	-1,011	3.3
2010	-1,293	-417	-876	2,516	3,393	-1,012	4.4
2011	-1,300	-409	-891	2,658	3,549	-988	3.6
2012	-1,089	-386	-703	2,796	3,499	-935	2.8
2013 [c]	-845	-422	-423	3,092	3,515	-1,000	2.4
2014 [c]	-616	-444	-172	3,407	3,579	-992	2.4
2015 [c]	-430	-352	-78	3,695	3,773	-716	1.8
2016 [c]	-476	-186	-290	3,762	4,053	-352	1.0
2017 [c]	-535	-43	-492	3,806	4,298	-55	0.2
2018 [c]	-605	-2	-603	3,939	4,542	*	**

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

Notes: Automatic stabilizers are automatic changes in revenues and outlays that are attributable to cyclical movements in real (inflation-adjusted) output and unemployment.

GDP = gross domestic product; * = between -$500 million and $500 million; ** = between -0.05 percent and 0.05 percent.

a. The GDP gap equals actual (or projected) GDP minus potential GDP (the maximum sustainable output of the economy).

b. The unemployment gap equals the actual (or projected) rate of unemployment minus the natural rate of unemployment, which is the rate of unemployment arising from all sources except fluctuations in aggregate demand.

c. Projected using CBO's baseline assumptions.

Table 2.

Return to Reference

Budget Deficit or Surplus With and Without Automatic Stabilizers and Related Series, Fiscal Years 1960 to 2018, as a Percentage of Potential Gross Domestic Product

	Budget Deficit (-) or Surplus With Automatic Stabilizers	−	Automatic Stabilizers	=	Budget Deficit (-) or Surplus Without Automatic Stabilizers	Budget Revenues and Outlays Without Automatic Stabilizers: Revenues	Budget Revenues and Outlays Without Automatic Stabilizers: Outlays	GDP Gap[a]	Unemployment Gap[b] (Percent)
1960	0.1		*		*	17.8	17.8	-0.1	-0.2
1961	-0.6		-1.1		0.5	18.2	17.7	-3.2	0.9
1962	-1.2		-0.5		-0.7	17.8	18.5	-1.3	0.5
1963	-0.8		-0.3		-0.5	17.9	18.4	-1.0	0.1
1964	-0.9		0.2		-1.1	17.5	18.6	0.7	-0.1
1965	-0.2		0.7		-0.9	16.8	17.6	2.0	-0.7
1966	-0.5		1.7		-2.2	16.8	19.0	5.4	-1.7
1967	-1.1		1.7		-2.8	17.8	20.6	4.7	-2.0
1968	-3.0		1.4		-4.4	17.2	21.6	3.9	-2.0
1969	0.4		1.7		-1.4	19.1	20.5	4.2	-2.4
1970	-0.3		0.8		-1.1	18.8	19.9	1.6	-1.9
1971	-2.1		-0.1		-2.0	17.4	19.4	-0.5	-0.2
1972	-2.0		*		-2.0	17.6	19.6	0.1	-0.1
1973	-1.2		1.1		-2.2	17.2	19.5	3.2	-0.9
1974	-0.4		0.8		-1.3	18.0	19.3	1.9	-1.2
1975	-3.3		-1.2		-2.1	18.2	20.3	-3.7	1.2
1976	-4.1		-1.4		-2.7	17.7	20.4	-3.2	1.8
1977	-2.7		-0.8		-1.9	18.3	20.2	-1.8	1.1
1978	-2.7		-0.1		-2.6	18.1	20.7	-0.2	*
1979	-1.6		0.3		-1.9	18.4	20.3	0.5	-0.4
1980	-2.6		-0.8		-1.9	19.2	21.1	-2.3	0.6
1981	-2.5		-1.1		-1.5	20.0	21.5	-2.3	1.2
1982	-3.7		-2.2		-1.6	19.9	21.4	-6.1	3.0
1983	-5.6		-2.6		-3.0	18.6	21.6	-6.8	4.1
1984	-4.7		-1.1		-3.6	17.9	21.5	-2.5	1.8
1985	-5.1		-0.6		-4.5	17.9	22.4	-1.3	1.2
1986	-5.0		-0.4		-4.6	17.6	22.2	-0.9	1.0
1987	-3.2		-0.4		-2.7	18.6	21.3	-1.1	0.4
1988	-3.1		*		-3.1	18.2	21.3	0.1	-0.3
1989	-2.9		0.3		-3.2	18.2	21.4	0.8	-0.7
1990	-3.9		0.2		-4.0	17.9	21.9	0.3	-0.5
1991	-4.4		-1.0		-3.4	18.2	21.6	-2.9	0.8
1992	-4.5		-1.3		-3.2	18.1	21.3	-2.9	1.7
1993	-3.8		-1.0		-2.8	18.0	20.8	-2.4	1.5
1994	-2.9		-0.7		-2.2	18.4	20.6	-1.5	0.9
1995	-2.2		-0.5		-1.7	18.7	20.3	-1.4	0.3
1996	-1.4		-0.6		-0.8	19.1	19.9	-1.3	0.2
1997	-0.3		-0.1		-0.2	19.3	19.5	-0.1	*
1998	0.8		0.3		0.5	19.8	19.3	0.7	-0.5
1999	1.4		0.8		0.5	19.5	18.9	2.0	-0.7

Continued

Table 2. **Continued**

Budget Deficit or Surplus With and Without Automatic Stabilizers and Related Series, Fiscal Years 1960 to 2018, as a Percentage of Potential Gross Domestic Product

	Budget Deficit (-) or Surplus With Automatic Stabilizers	–	Automatic Stabilizers	=	Budget Deficit (-) or Surplus Without Automatic Stabilizers	Budget Revenues and Outlays Without Automatic Stabilizers			
						Revenues	Outlays	GDP Gap[a]	Unemployment Gap[b] (Percent)
2000	2.5		1.3		1.2	20.0	18.8	3.0	-1.0
2001	1.3		0.7		0.6	19.1	18.4	1.1	-0.7
2002	-1.5		-0.3		-1.2	17.6	18.8	-0.8	0.7
2003	-3.4		-0.7		-2.7	16.5	19.2	-1.7	1.0
2004	-3.5		-0.3		-3.2	16.2	19.5	-0.5	0.6
2005	-2.6		0.1		-2.6	17.3	19.9	0.3	0.2
2006	-1.9		0.3		-2.2	18.1	20.3	0.7	-0.3
2007	-1.2		0.2		-1.3	18.5	19.8	0.3	-0.5
2008	-3.2		-0.3		-2.9	17.7	20.5	-1.0	0.2
2009	-9.4		-2.3		-7.1	16.0	23.1	-6.8	3.3
2010	-8.4		-2.7		-5.7	16.4	22.1	-6.6	4.4
2011	-8.2		-2.6		-5.6	16.7	22.3	-6.2	3.6
2012	-6.6		-2.3		-4.3	17.0	21.2	-5.7	2.8
2013[c]	-5.0		-2.5		-2.5	18.2	20.6	-5.9	2.4
2014[c]	-3.5		-2.5		-1.0	19.3	20.3	-5.6	2.4
2015[c]	-2.3		-1.9		-0.4	20.1	20.6	-3.9	1.8
2016[c]	-2.5		-1.0		-1.5	19.7	21.2	-1.8	1.0
2017[c]	-2.7		-0.2		-2.5	19.0	21.5	-0.3	0.2
2018[c]	-2.9		*		-2.9	18.8	21.7	*	*

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

Notes: Automatic stabilizers are automatic changes in revenues and outlays that are attributable to cyclical movements in real (inflation-adjusted) output and unemployment.

GDP = gross domestic product; * = between -0.05 percent and 0.05 percent.

a. The GDP gap equals actual (or projected) GDP minus potential GDP (the maximum sustainable output of the economy).

b. The unemployment gap equals the actual (or projected) rate of unemployment minus the natural rate of unemployment, which is the rate of unemployment arising from all sources except fluctuations in aggregate demand.

c. Projected using CBO's baseline assumptions.