DIMENSIONS OF THE BUDGET

20. COMPARISON OF ACTUAL TO ESTIMATED TOTALS

In successive budgets, the Administration publishes several estimates of the surplus or deficit for a particular fiscal year. Initially, the year appears as an outyear projection at the end of the budget horizon. In each subsequent budget, the year advances in the estimating horizon until it becomes the "budget year." One year later, the year becomes the "current year" then in progress, and the following year, it becomes the just-completed "actual year."

The budget is legally required to compare budget year estimates of receipts and outlays with the subsequent actual receipts and outlays for that year. Part I of this chapter meets that requirement by comparing the actual results for 2006 with the current services estimates shown in the 2006 Budget, published in February 2005.

Part II of the chapter presents a broader comparison of estimates and actual outcomes. This part first discusses the historical record of budget year estimates versus actual results over the last two decades. Second, it lengthens the focus to estimates made for each year of the budget horizon, extending four years beyond the budget year. This longer focus shows that the differences between estimates and the eventual actual results grow as the estimates extend further into the future.

PART I: COMPARISON OF ACTUAL TO ESTIMATED TOTALS FOR 2006

This part of the chapter compares the actual receipts, outlays, and deficit for 2006 with the current services estimates shown in the 2006 Budget, published in February 2005.[1] This part also presents a more detailed comparison for mandatory and related programs, and reconciles the actual receipts, outlays, and deficit totals shown here with the figures for 2006 previously published by the Department of the Treasury.

Receipts

Actual receipts for 2006 were $2,407 billion, $229 billion more than the $2,178 billion current services estimate in the 2006 Budget (February 2005). As shown in Table 20–1, this increase was the net effect of legislative and administrative changes; economic conditions that differed from what had been expected; and technical factors that resulted in different collection patterns and effective tax rates than had been assumed.

Table 20–1. COMPARISON OF ACTUAL 2006 RECEIPTS WITH THE INITIAL CURRENT SERVICES ESTIMATES

(In billions of dollars)

	February 2005 estimate	Enacted legislation/ administrative actions	Different economic conditions	Technical factors	Net change	Actual
Individual income taxes	965	–11	10	81	79	1,044
Corporation income taxes	223	*	–5	136	131	354
Social insurance and retirement receipts	819	....	16	3	19	838
Excise taxes	76	*	–1	–1	–2	74
Estate and gift taxes	26	1	*	1	2	28
Customs duties	27	–*	1	–3	–2	25
Miscellaneous receipts	43	*	3	–1	2	45
Total receipts	2,178	–10	23	216	229	2,407

* $500 million or less.

Policy differences. Several laws were enacted after February 2005 that reduced 2006 receipts by a net $10 billion. The emergency tax relief provided to individuals and businesses affected by hurricanes Katrina, Rita and Wilma in the Katrina Emergency Tax Relief Act of 2005 and the Gulf Opportunity Zone Act of 2005 accounted for $5 billion of the net reduction in 2006 receipts. The provisions of the Tax Increase Prevention and Reconciliation Act of 2005 (TIPRA), primarily the increase in the alternative minimum tax (AMT) exemp-

[1] The current services concept is discussed in Chapter 24, "Current Services Estimates." For mandatory programs and receipts, the February 2005 current services estimate was based on laws then in place, adjusted to reflect extension of certain expiring provisions in the 2001 and 2003 tax acts. For discretionary programs the current services estimate was based on the current year estimates, excluding one-time emergency appropriations, adjusted for inflation.

tion amount and a modification of the timing of estimated tax payments by corporations, also reduced 2006 receipts by a net $5 billion. The effects of other legislative and administrative changes on 2006 receipts were largely offsetting.

Economic differences. Differences between the economic assumptions upon which the current services estimates were based and actual economic performance increased 2006 receipts by a net $23 billion. Higher-than-anticipated wages and salaries and other sources of personal income were in large part responsible for the increases in individual income taxes and social insurance and retirement receipts of $10 billion and $16 billion, respectively. These increases were partially offset by a $5 billion decrease in corporation income taxes, attributable to lower-than-expected corporate profits. Differences between anticipated and actual economic performance increased other sources of receipts by a net $3 billion.

Technical reestimates. Technical factors increased 2006 receipts by a net $216 billion above the February 2005 current services estimate. This net increase was primarily attributable to higher-than-anticipated collections of individual and corporation income taxes of $81 billion and $136 billion, respectively. Different collection patterns and effective tax rates than assumed in February 2005 were primarily responsible for the higher-than-anticipated collections of individual and corporation income taxes. Changes in other sources of receipts attributable to technical factors were largely offsetting.

Outlays

Outlays for 2006 were $2,655 billion, $116 billion more than the $2,539 billion current services estimate in the 2006 Budget (February 2005).

Table 20–2 distributes the $116 billion net increase in outlays among discretionary and mandatory programs and net interest.[2] The table also makes rough estimates according to three reasons for the changes: policy; economic conditions; and technical estimating differences, a residual.

Policy changes are the result of legislative actions that change spending levels, primarily through higher or lower appropriations or changes in authorizing legislation, which may themselves reflect responses to changed economic conditions. For 2006, policy changes increased outlays by an estimated $160 billion relative to the initial current services estimates.

Policy changes increased discretionary outlays by $141 billion. Defense discretionary outlays increased by $93 billion and nondefense discretionary outlays increased by $48 billion. A significant portion of both defense and nondefense outlay increases resulted from enactment of emergency supplemental appropriation acts for defense, the Global War on Terror, and hurricane recovery in 2005 and 2006. Policy changes increased mandatory outlays by a net $15 billion above current law. This increase largely reflects a $19 billion increase in outlays for the National flood insurance program in response to hurricane recovery, partly offset by a $5 billion decrease in Medicare outlays, largely enacted in the Deficit Reduction Act of 2005.

Economic conditions that differed from those forecast in February 2005 resulted in a net increase in outlays of $18 billion. The most significant changes consist of a $7 billion increase in Social Security benefits largely resulting from higher cost-of-living adjustments and a $12 billion increase in net interest due to higher-than-expected interest rates.

Technical estimating differences and other changes resulted in a net decrease in outlays of $61 billion. Technical changes result from changes in such factors

[2] Discretionary programs are controlled by annual appropriations, while mandatory programs are generally controlled by authorizing legislation. Mandatory programs are mostly formula benefit or entitlement programs with permanent spending authority that depend on eligibility criteria, benefit levels, and other factors.

Table 20–2. COMPARISON OF ACTUAL 2006 OUTLAYS WITH THE INITIAL CURRENT SERVICES ESTIMATES

(Outlays in billions)

	Current Services (Feb. 2005)	Changes: Policy	Changes: Economic	Changes: Technical	Changes: Total changes	Actual
Discretionary:						
Defense	437	93	....	–11	83	520
Nondefense	477	48	....	–28	20	497
Subtotal, discretionary	914	141	....	–39	103	1,017
Mandatory:						
Social Security	540	....	7	–3	4	544
Other programs	876	15	–1	–22	–7	868
Subtotal, mandatory	1,416	15	6	–25	–4	1,412
Net interest	209	3	12	2	17	227
Total outlays	2,539	160	18	–61	116	2,655

Table 20–3. COMPARISON OF THE ACTUAL 2006 DEFICIT WITH THE INITIAL CURRENT SERVICES ESTIMATE

(In billions)

	Current Services (Feb. 2005)	Changes				Actual
		Policy	Economic	Technical	Total changes	
Receipts	2,178	–10	23	216	229	2,407
Outlays	2,539	160	18	–61	116	2,655
Deficit	361	170	–6	–277	–113	248

Note: Deficit changes are outlays minus receipts. For these changes, a plus indicates an increase in the deficit.

as the number of beneficiaries for entitlement programs, crop conditions, or other factors not associated with policy changes or economic conditions. Outlays for discretionary programs decreased an estimated $39 billion, because budget authority for both defense and nondefense programs was spent more slowly than expected. Outlays for mandatory programs decreased by a net $25 billion, largely because higher-than-anticipated outlays for higher education and mortgage credit programs were more than offset by lower-than-anticipated outlays for Medicaid, Medicare, unemployment compensation, and other programs. Net interest outlays increased by $2 billion due to technical factors compared to the February 2005 estimates.

Deficit

The preceding two sections discussed the differences between the initial current services estimates and the actual amounts of Federal Government receipts and outlays for 2006. This section combines these effects to show the net impact of these differences.

As shown in Table 20–3, the 2006 current services deficit was initially estimated to be $361 billion. The actual deficit was $248 billion, which was a $113 billion decrease from the initial estimate. Receipts were $229 billion more than the initial estimate and outlays were $116 billion more. The table shows the distribution of the changes according to the categories in the preceding two sections.

The net effect of policy changes for receipts and outlays increased the deficit by $170 billion. Economic conditions that differed from the initial assumptions in February 2005 accounted for an estimated $6 billion decrease in the deficit. Technical factors reduced the deficit by an estimated $277 billion.

Comparison of the Actual and Estimated Outlays for Mandatory and Related Programs for 2006

This section compares the original 2006 outlay estimates for mandatory and related programs under current law in the 2006 Budget (February 2005) with the actual outlays. Major examples of these programs include Social Security and Medicare benefits, agricultural price support payments to farmers, and deposit insurance for banks and thrift institutions. This category also includes net interest outlays and undistributed offsetting receipts.

A number of factors may cause differences between the amounts estimated in the budget and the actual mandatory outlays. For example, legislation may change benefit rates or coverage; the actual number of beneficiaries may differ from the number estimated; or economic conditions (such as inflation or interest rates) may differ from what was assumed in making the original estimates.

Table 20–4 shows the differences between the actual outlays for these programs in 2006 and the amounts originally estimated in the 2006 Budget, based on laws in effect at that time. Actual outlays for mandatory spending and net interest in 2006 were $1,639 billion, which was $14 billion more than the initial estimate of $1,625 billion, based on existing law in February 2005.

As Table 20–4 shows, actual outlays for mandatory human resources programs were $1,444 billion, $6 billion less than originally estimated. This decrease was the net effect of legislative action, differences between actual and assumed economic conditions, differences between the anticipated and actual number of beneficiaries, and other technical differences. Outlays for other functions were $4 billion more than originally estimated. Undistributed offsetting receipts were $1 billion higher than expected, thus reducing total outlays.

Outlays for net interest were $227 billion, or $17 billion more than the original estimate. This increase was the net effect of changes in interest rates from those initially assumed, changes in borrowing requirements due to differences in deficits, and technical factors.

Reconciliation of Differences with Amounts Published by Treasury for 2006

Table 20–5 provides a reconciliation of the receipts, outlays, and deficit totals published by the Department of the Treasury in the September 2006 Monthly Treasury Statement and those published in this Budget. The Department of the Treasury made adjustments to the estimates for the Combined Statement of Receipts, Outlays, and Balances, which decreased receipts by $6 million and increased outlays by $499 million. Nearly all of the outlay adjustment was the correction of reporting for the Exchange Stabilization Fund. Additional adjustments for this Budget increased receipts and outlays by $579 million and $557 million, respectively. Several financial transactions that are not reported to the De-

Table 20–4. COMPARISON OF ACTUAL AND ESTIMATED OUTLAYS FOR MANDATORY AND RELATED PROGRAMS UNDER CURRENT LAW

(In billions of dollars)

	2006		
	Feb. 2006 estimate	Actual	Change
Mandatory outlays:			
Human resources programs:			
Education, training, employment, and social services	11	38	27
Health:			
Medicaid	193	181	–12
Other	20	21	1
Total health	213	201	–11
Medicare	340	325	–15
Income security:			
Retirement and disability	106	102	–3
Unemployment compensation	37	31	–6
Food and nutrition assistance	51	48	–3
Other	113	116	3
Total, income security	307	298	–9
Social security	540	544	4
Veterans benefits and services:			
Income security for veterans	35	36	*
Other	3	2	–1
Total veterans benefits and services	38	37	–1
Total mandatory human resources programs	1,449	1,444	–6
Other functions:			
Agriculture	21	20	–1
International	–2	–7	–4
Deposit insurance	–1	–1	–*
Other functions	15	24	9
Total, other functions	33	37	4
Undistributed offsetting receipts:			
Employer share, employee retirement	–60	–61	–1
Rents and royalties on the outer continental shelf	–7	–7	–*
Other undistributed offsetting receipts	–*	–*	–*
Total undistributed offsetting receipts	–67	–68	–1
Total, mandatory	1,416	1,412	–4
Net interest:			
Interest on Treasury debt securities (gross)	391	406	15
Interest received by trust funds	–172	–169	2
Other interest	–10	–10	–*
Total net interest	209	227	17
Total outlays for mandatory and net interest	1,625	1,639	14

* $500 million or less.

partment of the Treasury, including those for the Affordable Housing Program, the Public Company Accounting Oversight Board, and the United Mine Workers of America benefit funds, are included in the budget. Reporting for these programs adds roughly equivalent amounts to outlays and receipts, with little impact on the deficit. Another significant conceptual difference in reporting is for the National Railroad Retirement Investment Trust (NRRIT). Reporting to the Department of the Treasury for the NRRIT is done with a one month lag so that the fiscal year total provided in the Treasury Combined Statement covers September 2005 through August 2006. The budget has been adjusted to reflect transactions that occurred during the actual fiscal year, which begins in October.

Table 20–5. RECONCILIATION OF FINAL AMOUNTS FOR 2006

(In millions of dollars)

	Receipts	Outlays	Deficit
Totals published by Treasury (September 30 MTS)	2,406,681	2,654,379	–247,698
Miscellaneous Treasury adjustments	–6	499	–505
Totals published by Treasury in Combined Statement	2,406,675	2,654,878	–248,203
Affordable Housing Program	307	307	....
Public Company Accounting Oversight Board	131	131	....
United Mine Workers of America benefit funds	119	114	5
National Railroad Retirement Investment Trust	....	–48	48
Other	22	53	–31
Total adjustments, net	579	557	22
Totals in the budget	2,407,254	2,655,435	–248,181
MEMORANDUM:			
Total change since year-end statement	573	1,056	–483

Part II: HISTORICAL COMPARISON OF ACTUAL TO ESTIMATED SURPLUSES OR DEFICITS

This part of the chapter compares estimated surpluses or deficits to actual outcomes over the last two and a half decades. The first section compares the estimate for the budget year of each budget with the subsequent actual result. The second section extends the comparison to the estimated surpluses or deficits for each year of the budget window: that is, for the current year through the fourth year following the budget year. This part concludes with some observations on the historical record of estimates of the surplus or deficit versus the subsequent actual outcomes.

Historical Comparison of Actual to Estimated Results for the Budget Year

Table 20–6 compares the estimated and actual surpluses or deficits since the deficit estimated for 1982 in the 1982 Budget. The estimated surpluses or deficits for each budget include the Administration's policy proposals. Therefore, the original deficit estimate for 2006 differs from that shown in Table 20–3, which is on a current services basis. Earlier comparisons of actual and estimated surpluses or deficits were on a policy basis, so for consistency the figures in Table 20–6 are on this basis.

On average, the estimates for the budget year underestimated actual deficits (or overestimated actual surpluses) by $20 billion over the 25-year period. Policy outcomes that differed from the original proposals increased the deficit by an average of $34 billion. Differences between economic assumptions and actual economic performance increased the deficit an average of $12 billion. Differences due to these two factors were partly offset by technical revisions, which reduced the deficit an average of $26 billion.

The relatively small average difference between actual and estimated deficits conceals a wide variation in the differences from budget to budget. The differences ranged from a $389 billion underestimate of the deficit to a $190 billion overestimate. The $389 billion underestimate, in the 2002 Budget, was due largely to receipt shortfalls related to the 2001 recession and associated weak stock market performance. About a quarter of the underestimate was due to increased spending for recovery from the September 11, 2001 terrorist attacks, homeland security measures, and the war on terror, along with lower receipts due to tax relief in the March 2002 economic stimulus act. The $190 billion overestimate of the deficit in the 1998 Budget stemmed largely from stronger-than-expected economic growth and a surge in individual income tax collections beyond that accounted for by economic factors.

Because the average deficit difference obscures the degree of under- and overestimation in the historical data, a more appropriate statistic to measure the magnitude of the differences is the average absolute difference. This statistic measures the difference without regard to whether it was an under- or overestimate. Since 1982, the average absolute difference has been $99 billion.

Another measure of variability is the standard deviation. This statistic measures the dispersion of the data around the average value. The standard deviation of the deficit differences since 1982 is $136 billion. Like the average absolute difference, this measure illustrates the high degree of variation in the difference between estimates and actual deficits.

The large variability in errors in estimates of the surplus or deficit for the budget year underscores the inherent uncertainties in estimating the future path of the Federal budget. Some estimating errors are unavoidable, because of differences between the President's original budget proposals and the legislation that Congress subsequently enacts. Occasionally such differences are huge, such as additional appropriations for disaster recovery, homeland security, and war efforts in response to the terrorist attacks of September 11, 2001, which were obviously not envisioned in the

Table 20–6. COMPARISON OF ESTIMATED AND ACTUAL SURPLUSES OR DEFICITS SINCE 1982

(In billions of dollars)

Budget	Surplus or deficit (–) estimated for budget year [1]	Differences due to			Total difference	Actual surplus or deficit(–)
		Enacted legislation	Economic factors	Technical factors		
1982	–62	15	–70	–11	–66	–128
1983	–107	–12	–67	–22	–101	–208
1984	–203	–21	38	–0	17	–185
1985	–195	–12	–17	12	–17	–212
1986	–180	–8	–27	–7	–41	–221
1987	–144	2	–16	8	–6	–150
1988	–111	–9	–19	–16	–44	–155
1989	–130	–22	10	–11	–23	–153
1990	–91	–21	–31	–79	–131	–221
1991	–63	21	–85	–143	–206	–269
1992	–281	–36	–21	48	–9	–290
1993	–350	–8	–13	115	95	–255
1994	–264	–8	16	52	61	–203
1995	–165	–18	1	18	1	–164
1996	–197	6	53	30	89	–107
1997	–140	1	–4	121	118	–22
1998	–121	–9	48	151	190	69
1999	10	–22	56	82	116	126
2000	117	–42	88	73	119	236
2001	184	–129	32	41	–56	128
2002	231	–104	–201	–84	–389	–158
2003	–80	–86	–34	–177	–297	–378
2004	–307	–122	–22	39	–105	–412
2005	–364	–67	–11	123	45	–318
2006	–390	–141	6	277	142	–248
Average	....	–34	–12	26	–20	....
Absolute average [2]	....	38	39	70	99	....
Standard deviation	....	46	57	94	136	....

[1] Surplus or deficit estimate includes the effect of the budget's policy proposals.
[2] Absolute average is the average without regard to sign.

President's Budget submitted the previous February. Even aside from differences in policy outcomes, errors in budget estimates can arise from new economic developments, unexpected changes in program costs, shifts in taxpayer behavior, and other factors. The budget impact of changes in economic assumptions is discussed further in Chapter 12 of this volume, "Economic Assumptions."

Five-Year Comparison of Actual to Estimated Surpluses or Deficits

The substantial difference between actual surpluses or deficits and the budget year estimates made less than two years earlier raises questions about the degree of variability for estimates of years beyond the budget year. Table 20–7 shows the summary statistics for the differences for the current year (CY), budget year (BY), and the four succeeding years (BY+1 through BY+4). These are the years that are required to be estimated in the budget by the Budget Enforcement Act of 1990.

On average, the budget estimates since 1982 overstated the deficit in the current year by $26 billion, but underestimated the deficit in the budget year by $20 billion. The budget estimates understated the deficit in the years following, by amounts growing from $59 billion for BY+1 to $141 billion for BY+4. While these results suggest a tendency to underestimate deficits toward the end of the budget horizon, the averages are not statistically different from zero in light of the high variation in the data.

The average absolute difference between estimated and actual deficits grows dramatically over the six years from CY through BY+4, from $58 billion in the current year to $99 billion for the budget year, to $269 billion for BY+4. While under- and overestimates of the deficit have historically tended to average out, the absolute size of the under- or overestimates grows as the estimates extend further into the future. The standard deviation of the deficit differences shows the same pattern. The standard deviation grows from $71 billion for current year estimates to $136 billion for the budget year estimates and continues to increase steadily as the estimates extend further out, reaching $289 billion for BY+4.

Table 20–7. DIFFERENCES BETWEEN ESTIMATED AND ACTUAL SURPLUSES OR DEFICITS FOR FIVE-YEAR BUDGET ESTIMATES SINCE 1982

(In billions of dollars)

	Current year estimate	Budget year estimate	Estimate for budget year plus			
			One year (BY+1)	Two years (BY+2)	Three years (BY+3)	Four years (BY+4)
Average difference [1]	26	–20	–59	–97	–128	–141
Average absolute difference [2]	58	99	149	202	245	269
Standard deviation	71	136	202	249	271	289

[1] A positive figure represents an underestimate of the surplus or an overestimate of the deficit.
[2] Average absolute difference is the difference without regard to sign.

The estimates of variability in the difference between estimated and actual deficits can be used to construct a range of uncertainty around a given set of estimates. Statistically, if these differences are normally distributed, the actual deficit will be within a range of two standard deviations above or below the estimate about 90 percent of the time. Chart 20–1 shows this range of two standard deviations applied to the deficit estimates in this Budget. This chart illustrates that unforeseen economic developments, policy outcomes, or other factors could give rise to large swings in the deficit estimates.

Chart 20-1. Illustrative Range of Budget Outcomes