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.[1] Part I of this chapter meets that requirement by comparing the actual results for 2004 with the current services estimates shown in the 2004 Budget published in February 2003.

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 broadens the focus to estimates made for each year of the budget horizon, extending four years beyond the budget year. This broader focus shows that the growth in differences between estimates and the eventual actual results grows as the estimates extend further into the future.

PART I: COMPARISON OF ACTUAL TO ESTIMATED TOTALS FOR 2004

This part of the chapter compares the actual receipts, outlays, and deficit for 2004 with the current services estimates[2] shown in the 2004 Budget published in February 2003. 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 2004 previously published by the Department of the Treasury.

Receipts

Actual receipts for 2004 were $1,880 billion, $151 billion less than the $2,031 billion current services estimate in the 2004 Budget (February 2003). As shown in Table 20–1, this shortfall 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. In the interest of cautious and prudent forecasting, the February 2003 estimate included a downward adjustment beyond what the economic and receipts models were forecasting. This adjustment, which was not distributed by source of receipt, reduced the estimate of 2004 receipts by $15 billion.

Policy differences. Enactment of the Jobs and Growth Tax Relief Reconciliation Act in May 2003 reduced 2004 receipts by $138 billion. This reduction was partially offset by enactment of the Pension Funding Equity Act in April 2004, which increased 2004 receipts by $3 billion.

Table 20–1. COMPARISON OF ACTUAL 2004 RECEIPTS WITH THE INITIAL CURRENT SERVICES ESTIMATES

(in billions of dollars)

	February 2003 estimate	Enacted legislation/ administrative actions	Different economic conditions	Technical factors	Net change	Actual
Individual income taxes	954	–109	–29	–7	–145	809
Corporation income taxes	174	–26	14	27	16	189
Social insurance and retirement receipts	765	*	–23	–8	–31	733
Excise taxes	71	....	–*	–1	–1	70
Estate and gift taxes	24	....	*	1	1	25
Customs duties	21	–*	*	*	*	21
Miscellaneous receipts	38	1	–6	–1	–6	33
Adjustment for revenue uncertainty	–15	....	....	15	15	....
Total	2,031	–135	–43	27	–151	1,880

* $500 million or less.

[1] These requirements, for receipts and "uncontrollable outlays," are in 31 USC 1105(a)(18) through (20).

[2] The current services concept is discussed in Chapter 25, "Current Services Estimates." For mandatory programs and receipts the February 2003 current services estimate is based on laws then in place. For discretionary programs the current services estimate is based on the current year estimates adjusted for inflation.

Economic differences. Differences between the economic assumptions upon which the current services estimates were based and actual economic performance accounted for a reduction in 2004 receipts of $43 billion. Lower-than-anticipated wages and salaries and other sources of personal income were in large part responsible for the reductions in individual income taxes and social insurance and retirement receipts of $29 billion and $23 billion, respectively. Lower-than-expected interest rates, which affect deposits of earnings by the Federal Reserve, were in large part responsible for the $6 billion reduction in miscellaneous receipts below the February 2003 estimate. These reductions were only partially offset by a $14 billion increase in corporation income taxes, attributable to higher-than-expected corporate profits.

Technical reestimates. Technical factors increased 2004 receipts a net $27 billion above the February 2003 current services estimate. This net increase was primarily attributable to higher-than-anticipated collections of corporation income taxes of $27 billion, which were partially offset by lower-than-anticipated collections of other sources of receipts (net of the adjustment for revenue uncertainty) of $1 billion. Different collection patterns and effective tax rates than assumed in February 2003 were primarily responsible for the higher-than-anticipated collections of corporation income taxes. Lower-than anticipated collections in other sources of receipts were in large part captured by the adjustment for revenue uncertainty, resulting in a net reduction in collections from these sources of receipts of $1 billion.

Outlays

Outlays for 2004 were $2,292 billion, $103 billion more than the $2,189 billion current services estimate in the 2004 Budget (February 2003).

Table 20–2 distributes the $103 billion net increase in outlays among discretionary and mandatory programs and net interest.[3] 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 reflect responses to changed economic conditions. For 2004, policy changes increased outlays an estimated $136 billion relative to the initial current services estimates.

Policy changes increased discretionary outlays by $105 billion. Defense discretionary outlays increased by $63 billion and nondefense discretionary outlays increased by $42 billion. A significant portion of both defense and nondefense outlay increases resulted from enactment of the Emergency Wartime Supplemental Appropriations Acts in 2003 and 2004. Policy changes increased mandatory outlays by $27 billion above current law. Medicare outlays increased an estimated $11 billion, largely due to the Prescription Drug and Medicare Improvement Act of 2003. In addition, outlays for temporary state fiscal relief increased by another $11 billion—$6 billion for Medicaid and $5 billion for state fiscal assistance grants—resulting from enactment of the Jobs and Growth Tax Relief Reconciliation Act of 2003. The remaining $5 billion increase largely consists of unemployment compensation outlays resulting from extensions of temporary extended unemployment benefits. Debt service costs increased by $4 billion due to outlay and revenue policy changes.

Economic conditions that differed from those forecast in February 2003 resulted in a net decrease in outlays of $21 billion. This decrease consists almost entirely of a $22 billion decrease in net interest due to lower-than-expected interest rates.

[3] 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 2004 OUTLAYS WITH THE INITIAL CURRENT SERVICES ESTIMATES

(outlays in billions)

	Current Services (Feb. 2003)	Changes				Actual
		Policy	Economic	Technical	Total changes	
Discretionary:						
Defense	383	63	....	8	71	454
Nondefense	412	42	....	–12	29	441
Subtotal, discretionary	795	105	....	–5	100	895
Mandatory:						
Social Security	493	....	*	–2	–1	492
Other programs	728	27	1	–11	17	745
Subtotal, mandatory	1,221	27	1	–13	15	1,237
Net interest	173	4	–22	5	–13	160
Total outlays	2,189	136	–21	–13	103	2,292

* $500 million or less.

Table 20–3. COMPARISON OF THE ACTUAL 2004 DEFICIT WITH THE INITIAL CURRENT SERVICES ESTIMATE

(in billions)

	Current Services (Feb. 2003)	Changes				Actual
		Policy	Economic	Technical	Total changes	
Receipts	2,031	–135	–43	27	–151	1,880
Outlays	2,189	136	–21	–13	103	2,292
Deficit	158	271	22	–39	254	412

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

Technical estimating differences and other changes resulted in a net decrease in outlays of $13 billion. Technical changes result from changes in such factors 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 $5 billion, due to slower-than-expected outlays for nondefense programs. Outlays for mandatory programs decreased an estimated $13 billion. This largely reflects lower-than-anticipated outlays for Medicaid, farm subsidy programs, and unemployment compensation, partially offset by higher-than-anticipated outlays for mortgage credit programs and Medicare. Net interest outlays increased by $5 billion largely due to technical factors compared to the February 2003 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 2004. This section combines these effects to show the net impact of these differences.

As shown in Table 20–3, the 2004 current services deficit was initially estimated to be $158 billion. The actual deficit was $412 billion, which was a $254 billion increase from the initial estimate. Receipts were $151 billion less than the initial estimate and outlays were $103 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 $271 billion. Economic conditions that differed from the initial assumptions in February 2003 accounted for an estimated $22 billion increase in the deficit. Technical factors reduced the deficit by an estimated $39 billion.

Comparison of the Actual and Estimated Outlays for Mandatory and Related Programs for 2004

This section compares the original 2004 outlay estimates for mandatory and related programs under current law in the 2004 Budget (February 2003) with the actual outlays. Major examples of these programs include Social Security and Medicare benefits for the elderly, 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 2004 and the amounts originally estimated in the 2004 Budget, based on laws in effect at that time. Actual outlays for mandatory spending and net interest in 2004 were $1,397 billion, which was $2 billion more than the initial estimate of $1,394 billion, based on existing law in February 2003.

Actual outlays for mandatory human resources programs were $1,273 billion, $20 billion more than originally estimated. This increase 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 $2 billion less than originally estimated. Undistributed offsetting receipts were $2 billion higher than expected.

Outlays for net interest were $160 billion or $13 billion less than the original estimate. This decrease was the net effect of changes in interest rates from those initially assumed, changes in borrowing requirements due to differences in surpluses, and technical factors.

Reconciliation of Differences with Amounts Published by Treasury for 2004

Table 20–5 provides a reconciliation of the receipts, outlays, and deficit totals published by the Department of the Treasury in the September 2004 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 and outlays by $22 million and $291 million, respectively. Additional adjustments for this budget increased receipts by $294 million and outlays by $154 million. Several financial transactions that are not reported to the Department of the Treasury, including those for the Public Company Accounting Oversight Board, the receipt of

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

(in billions of dollars)

	2004		
	Feb. 2003 estimate	Actual	Change
Mandatory outlays:			
Human resources programs:			
Education, training, employment, and social services	10	13	3
Health:			
Medicaid	177	176	–1
Other	18	16	–1
Total health	194	192	–2
Medicare	249	265	16
Income security:			
Retirement and disability	95	95	–*
Unemployment compensation	40	42	2
Food and nutrition assistance	38	41	3
Other	99	103	4
Total, income security	273	281	8
Social security	493	492	–1
Veterans benefits and services:			
Income security for veterans	32	31	–1
Other	3	*	–2
Total veterans benefits and services	34	31	–3
Total mandatory human resources programs	1,253	1,273	20
Other functions:			
Agriculture	15	10	–5
International	–2	–7	–4
Deposit insurance	–1	–2	–1
Other functions	13	21	8
Total, other functions	24	22	–2
Undistributed offsetting receipts:			
Employer share, employee retirement	–52	–53	–1
Rents and royalties on the outer continental shelf	–4	–5	–1
Other undistributed offsetting receipts	–*	....	*
Total undistributed offsetting receipts	–56	–59	–2
Total, mandatory	1,221	1,237	15
Net interest:			
Interest on Treasury debt securities (gross)	349	322	–28
Interest received by trust funds	–164	–154	10
Other interest	–12	–7	4
Total net interest	173	160	–13
Total outlays for mandatory and net interest	1,394	1,397	2

* $500 million or less.

accounting oversight fees and their payment to the Standard Setting Body, and the United Mine Workers of America benefit funds, are included in the budget. Other significant conceptual differences in reporting are for the National Railroad Retirement Investment Trust (NRRIT) and the Exchange Stabilization Fund. Reporting to the Department of the Treasury for NRRIT is done with a one month lag, so that the fiscal year total provided in the Treasury Combined Statement covers September 2003 through August 2004. The budget has been adjusted to reflect transactions that occurred during the actual fiscal year, which begins in October. For the Exchange Stabilization Fund, reporting for the budget excludes the gains and losses in the valuation of foreign currencies held in the fund.

Table 20–5. RECONCILIATION OF FINAL AMOUNTS FOR 2004

(in millions of dollars)

	Receipts	Outlays	Deficit
Totals published by Treasury (September 30 MTS)	1,879,799	2,292,352	–412,553
Miscellaneous Treasury adjustments	–22	–291	269
Totals published by Treasury in Combined Statement	1,879,777	2,292,061	–412,284
National Railroad Retirement Investment Trust	....	–231	231
Exchange stabilization fund	....	140	–140
Public Company Accounting Oversight Board	119	68	51
Standard Setting Body	38	38	....
United Mine Workers of America benefit funds	127	127	....
Other	10	12	–2
Total adjustments, net	294	154	140
Totals in the budget	1,880,071	2,292,215	–412,144
MEMORANDUM:			
Total change since year-end statement	272	–137	409

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 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 here for each budget include the Administration's policy proposals. Therefore, the original deficit estimate for 2004 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 $30 billion over the 23-year period. Policy outcomes that differed from the original proposals increased the deficit by an average of $28 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 $10 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 associated with 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 against terror, along with lower receipts due to 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 $100 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 $137 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 actually 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 President's

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
Average	....	–28	–12	10	–30	....
Absolute average [2]	....	32	42	58	100	....
Standard deviation	....	42	59	79	137	....

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

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 differences 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 $16 billion, but underestimated the deficit in the budget year by $30 billion. The budget estimates understated the deficit in the years following, by amounts growing from $65 billion for BY+1 to $99 billion for BY+4. While these results suggest a tendency to underestimate defi-

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]	16	–30	–65	–86	–95	–99
Average absolute difference [2]	51	100	156	201	223	240
Standard deviation	64	137	210	253	258	271

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

cits 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 $51 billion in the current year to $100 billion for the budget year, to $240 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 $64 billion for current year estimates to $137 billion for the budget year estimates and continues to increase steadily as the estimates extend further out, reaching $271 billion for BY+4.

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 uncertainty 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