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THE 2004 ANNUAL REPORT OF THE BOARDS OF TRUSTEES OF THE FEDERAL HOSPITAL INSURANCE AND FEDERAL SUPPLEMENTARY MEDICAL INSURANCE TRUST FUNDS

COMMUNICATION

FROM

THE BOARDS OF TRUSTEES, FEDERAL HOSPITAL INSURANCE AND FEDERAL SUPPLEMENTARY MEDICAL INSURANCE TRUST FUNDS

TRANSMITTING

THE 2004 ANNUAL REPORT OF THE BOARDS OF TRUSTEES OF THE FEDERAL HOSPITAL INSURANCE AND FEDERAL SUPPLEMENTARY MEDICAL INSURANCE TRUST FUNDS

March 23, 2004.—Referred to the Committee on Ways and Means and ordered to be printed

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LETTER OF TRANSMITTAL

BOARDS OF TRUSTEES OF THE
FEDERAL HOSPITAL INSURANCE AND
FEDERAL SUPPLEMENTARY MEDICAL INSURANCE TRUST FUNDS,
Washington, D.C., March 23, 2004

HONORABLE J. Dennis Hastert
Speaker of the House of Representatives
Washington, D.C.

HONORABLE Richard B. Cheney
President of the Senate
Washington, D.C.

GENTLEMEN:

We have the honor of transmitting to you the 2004 Annual Report of the Boards of Trustees of the Federal Hospital Insurance Trust Fund and the Federal Supplementary Medical Insurance Trust Fund, the 39th such report.

Respectfully,

John W. Snow, *Secretary of the Treasury, and Managing Trustee of the Trust Funds.*

Elaine L. Chao, *Secretary of Labor, and Trustee.*

Tommy G. Thompson, *Secretary of Health and Human Services, and Trustee.*

Jo Anne B. Barnhart, *Commissioner of Social Security, and Trustee.*

John L. Palmer, *Trustee.*

Thomas R. Saving, *Trustee.*

Dennis G. Smith, *Acting Administrator of the Centers for Medicare & Medicaid Services, and Secretary, Boards of Trustees.*

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I. OVERVIEW

A. INTRODUCTION

The Medicare program is composed of two components. Hospital Insurance (HI), or Medicare Part A, helps pay for hospital, home health, skilled nursing facility, and hospice care for the aged and disabled. Supplementary Medical Insurance (SMI) is composed of Medicare Part B and, beginning in 2004, Part D.[1] Part B pays for physician, outpatient hospital, home health, and other services for the aged and disabled. Part D will initially provide access to prescription drug discount cards and transitional assistance to low-income beneficiaries. In 2006 and later, Part D will provide subsidized access to drug insurance coverage on a voluntary basis for all beneficiaries and premium and cost-sharing subsidies for low-income enrollees.

The HI trust fund is financed primarily by payroll taxes paid by workers and employers. The taxes paid each year are used mainly to pay benefits for current beneficiaries. The SMI trust fund is financed primarily by transfers from the general fund of the U.S. Treasury and by monthly Part B and Part D premiums paid by beneficiaries. Income not currently needed to pay benefits and related expenses is held in the HI and SMI trust funds and invested in U.S. Treasury securities.

The Medicare Board of Trustees was established under the Social Security Act to oversee the financial operations of the HI and SMI trust funds.[2] The Board is composed of six members. Four members serve by virtue of their positions in the Federal Government: the Secretary of the Treasury, who is the Managing Trustee; the Secretary of Labor; the Secretary of Health and Human Services; and the Commissioner of Social Security. The other two members are appointed by the President and confirmed by the Senate to serve as public representatives: John L. Palmer and Thomas R. Saving, the current public Trustees, began serving their 4-year terms on October 28, 2000. The Administrator of the Centers for Medicare & Medicaid Services (CMS) is designated as Secretary of the Board.

This 2004 report is the 39th to be submitted. The report evaluates the near-term and longer-term financial status of both the HI and SMI trust funds under a range of possible future conditions.

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[1]Medicare also has a Part C, which provides Part A and Part B coverage and, optionally, Part D coverage through private managed care plans.

[2]Technically, separate boards are established for HI and SMI. Because both boards have the same membership, for convenience they are collectively referred to as the Medicare Board of Trustees in this report.

B. HIGHLIGHTS

The major findings of this report under the intermediate set of assumptions are summarized below.

- **Medicare Program—**The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 introduces the most sweeping changes to Medicare since the program's enactment in 1965. Many of these changes have important financial implications. Total Medicare expenditures were 2.6 percent of the Gross Domestic Product (GDP) in 2003. In 2006, with the implementation of the new prescription drug benefit, total expenditures are estimated to be 3.4 percent of GDP and to increase rapidly to 7.7 percent by 2035 and to 13.8 percent by 2078. Projected Medicare costs would exceed those for Social Security in 2024; by 2078, the level of Medicare expenditures would represent nearly twice the cost of Social Security. The difference between program outlays and dedicated financing sources, which was 33 percent in 2003, is estimated to reach 45 percent of outlays in 2012.
- **HI Trust Fund**—The financial status of the fund has deteriorated significantly, with asset exhaustion projected to occur in 2019 under current law compared to 2026 in last year's report. This change results from several factors: the new legislation, higher HI expenditures and lower payroll tax revenues in 2003 than expected (and associated assumption adjustments), improved data on the health status of beneficiaries in HMOs, and model refinements for certain hospital payments. HI assets are estimated to decline from 152 percent of annual expenditures in 2003 to 89 percent in 2013, and the HI trust fund no longer meets the Trustees' test of short-range financial adequacy. Tax income currently equals 98 percent of expenditures but would cover only 81 percent of costs in 2019 and just 26 percent 75 years from now. A substantial 75-year actuarial deficit of 3.12 percent of taxable payroll is projected, and the HI trust fund fails by a wide margin to meet the Trustees' long-range test of close actuarial balance.
- **SMI Trust Fund**—Under current law, the SMI trust fund will be adequate, both in the near term and into the indefinite future, because of the automatic financing established for Parts B and D. Over the next 10 years, the average annual increase in Part B benefit payments is estimated to be 6.6 percent, compared to a growth rate of 5.0 percent for GDP—but payments to physicians are unrealistically constrained under current law. For Part D, the average annual increase in benefit payments is estimated to be 9.7 percent from 2006 to 2013. Part B outlays were 1.1 percent of GDP in 2003 and are projected to grow to about 4.8 percent by 2078. Part D outlays are estimated to be 0.7 percent of GDP in 2006 and are projected to grow to about 3.4 percent by 2078.

C. MEDICARE DATA FOR CALENDAR YEAR 2003

HI and SMI have separate trust funds, sources of revenue, and categories of expenditures. Table I.C1 presents Medicare data for calendar year 2003, in total and for each part of the program. (For 2003, SMI was composed of Part B only.) The largest category of HI expenditures is inpatient hospital services, while the largest SMI expenditure category is physician services.

Table I.C1.—Medicare Data for Calendar Year 2003

	HI	SMI	Total
Assets at end of 2002 (billions)	$234.8	$34.3	$269.1
Total income	$175.8	$115.8	$291.6
Payroll taxes	149.2	—	149.2
Interest	15.0	2.0	17.0
Taxation of benefits	8.3	—	8.3
Premiums	1.6	27.4	29.0
General revenue	0.5	86.4	86.9
Other	1.1	0.0	1.1
Total expenditures	$154.6	$126.1	$280.8
Benefits	152.1	123.8	275.9
Hospital	109.4	17.9	127.3
Skilled nursing facility	14.3	—	14.3
Home health care	2.6	7.1	9.7
Physician fee schedule services	—	48.3	48.3
Managed care	19.5	17.2	36.8
Other	6.3	33.3	39.6
Administrative expenses	$2.5	$2.3	$4.9
Net change in assets	$21.2	–$10.3	$10.8
Assets at end of 2003	$256.0	$24.0	$280.0
Enrollment (millions)			
Aged	34.6	33.1	35.0
Disabled	6.0	5.3	6.0
Total	40.6	38.5	41.0
Average benefit per enrollee	$3,747	$3,219	$6,966

Note: Totals do not necessarily equal the sums of rounded components.

For HI, the primary source of financing is the payroll tax on covered earnings. Employers and employees each pay 1.45 percent of earnings, while self-employed workers pay 2.9 percent of their net income. Other HI revenue sources include a portion of the Federal income taxes that people pay on their Social Security benefits, and interest paid on the U. S. Treasury securities held in the HI trust fund.

For SMI, transfers from the general fund of the Treasury represent the largest source of income, covering roughly 75 percent of Part B program costs. Beneficiaries pay monthly premiums that finance about 25 percent of Part B costs. As with HI, interest is paid on the U. S. Treasury securities held in the SMI trust fund.

D. ECONOMIC AND DEMOGRAPHIC ASSUMPTIONS

Actual future Medicare expenditures will depend on a number of factors, including the size and composition of the population eligible for benefits, changes in the volume and intensity of services, and increases in the price per service. For HI, future trust fund income will depend on the size and characteristics of the covered work force and the level of workers' earnings. These factors will depend in turn upon future birth rates, death rates, labor force participation rates, wage increases, and many other economic and demographic circumstances affecting Medicare. To illustrate the uncertainty and sensitivity inherent in estimates of future Medicare trust fund operations, projections have been prepared under a "low cost" and a "high cost" set of assumptions as well as under an intermediate set.

Table I.D1 summarizes the key assumptions used in this report. Many of the demographic and economic variables that determine Medicare costs and income are common to the Old-Age, Survivors, and Disability Insurance (OASDI) program and are explained in detail in the report of the OASDI Board of Trustees. These variables include changes in the Consumer Price Index (CPI) and wages, real interest rates, fertility rates, and mortality rates. ("Real" indicates that the effects of inflation have been removed.) The assumptions vary, in most cases, from year to year during the first 5 to 30 years before reaching their so-called "ultimate" values for the remainder of the 75-year projection period. Other assumptions are specific to Medicare. As with all of the assumptions underlying the Trustees' financial projections, the Medicare-specific assumptions are reviewed annually and updated based on the latest available data and analysis of trends. An independent panel of expert actuaries and economists will be convened in 2004 to review these assumptions

Table I.D1.—Ultimate Assumptions

	Intermediate	Low Cost	High Cost
Economic:			
Annual percentage change in:			
Gross Domestic Product (GDP) per capita	4.1	4.0	4.6
Average wage in covered employment	3.9	3.4	4.4
Consumer Price Index (CPI)	2.8	1.8	3.8
Real-wage differential (percent)	1.1	1.6	0.6
Real interest rate (percent)	3.0	3.7	2.2
Demographic:			
Total fertility rate (children per woman)	1.95	2.20	1.70
Average annual percentage reduction in total age-sex adjusted death rates from 2028 to 2078	0.71	0.33	1.24
Health cost growth:			
Annual percentage change in per beneficiary Medicare expenditures (excluding demographic impacts)	5.1	[1]	[1]

[1]See section II.B for further explanation.

The assumed long-range rate of growth in Medicare expenditures is one of the most critical determinants of the projected cost of Medicare-covered health care services in the more distant future. The long-range increase in average expenditures per beneficiary is assumed to equal growth in per capita GDP plus 1 percentage point.[3] The growth rates are estimated year by year for the next 12 years, reflecting recent trends and the impact of specific statutory provisions. Expenditure growth for years 13 to 25 is assumed to grade smoothly into the long-range assumption.

In HI, for the high cost assumptions, the annual increase in costs (relative to increases in taxable payroll) during the initial 25-year period is assumed to be 2 percentage points greater than under the intermediate assumptions. Under low cost assumptions, the increase during the same period is assumed to be 2 percentage points less than under intermediate assumptions. The 2-percent differentials are assumed to decline gradually until 2053, when the same rate of increase in HI costs (relative to taxable payroll) is assumed for all three sets of assumptions. Because of its automatic financing provisions for Parts B and D, the SMI trust fund is expected to be adequately financed into the indefinite future, so a long-range analysis using high cost and low cost assumptions is not conducted.

While it is reasonable to expect that actual trust fund experience will fall within the range defined by the three alternative sets of assumptions, no assurance can be given in light of the wide variations in experience that have occurred since the beginning of the Medicare program. In general, a greater degree of confidence can be placed in the assumptions and estimates for the earlier years than for the later years. Nonetheless, even for the earlier years, the estimates are only an indication of the expected trend and the general range of future Medicare experience. For simplicity of presentation, much of the analysis in this overview centers on the projections under the intermediate assumptions.

[3]This assumed increase in the average expenditures per beneficiary excludes the impacts of the aging of the population and changes in the gender composition of the Medicare population, which are estimated separately.

E. FINANCIAL OUTLOOK FOR THE MEDICARE PROGRAM

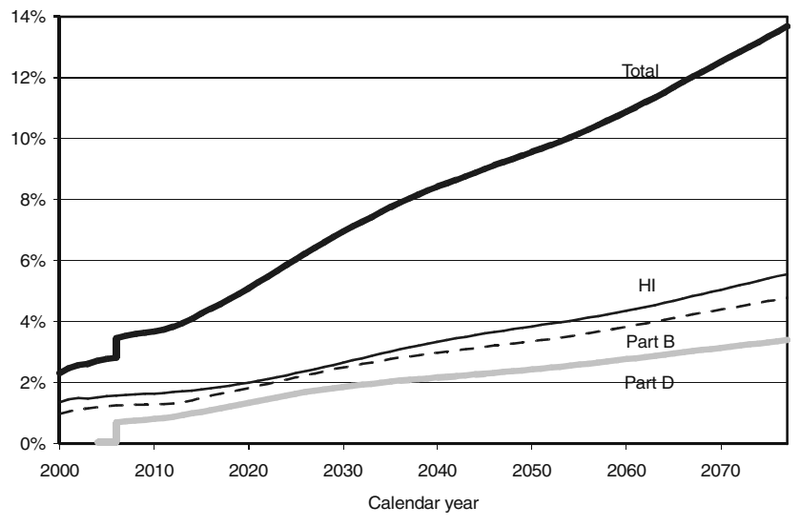
This report evaluates the financial status of the HI and SMI trust funds. For HI, the Trustees apply formal tests of financial status for both the short range and the long range; for SMI, the Trustees assess the ability of the trust fund to meet incurred costs over the period for which financing has been set.

HI and SMI are financed in very different ways. Within SMI, Part B and Part D premiums and general revenue financing are reestablished annually to match expected costs for the following year. In contrast, HI is subject to substantial variation in asset growth, since financing is established through statutory tax rates that cannot be adjusted to match expenditures except by enactment of new legislation.

Despite the significant differences in benefit provisions and financing, the two components of Medicare are closely related. Most beneficiaries are enrolled in both HI and SMI Part B and are expected to enroll in SMI Part D, and many of them receive health care services from both HI and SMI in a given year. Efforts to improve and reform either component must necessarily involve the other component as well. In view of the anticipated growth in Medicare expenditures, it is also important to consider the balance among the various sources of revenues for financing Medicare and the manner in which these will change over time under present law.

In this section, the projected total expenditures for the Medicare program are considered, along with the primary sources of financing. Figure I.E1 shows projected costs as a percentage of GDP. Medicare expenditures represented 2.6 percent of GDP in 2003. With the commencement of the major portion of the Part D program, total Medicare spending is projected to be 3.4 percent of GDP in 2006. It will increase to about 7.7 percent of GDP by 2035 under the intermediate assumptions and to 13.8 percent of GDP by the end of the 75-year period. To put these shares of GDP in perspective, over the last 50 years, total Federal income tax receipts have averaged 11 percent of GDP.

Figure I.E1.—Medicare Expenditures as a Percentage of the Gross Domestic Product

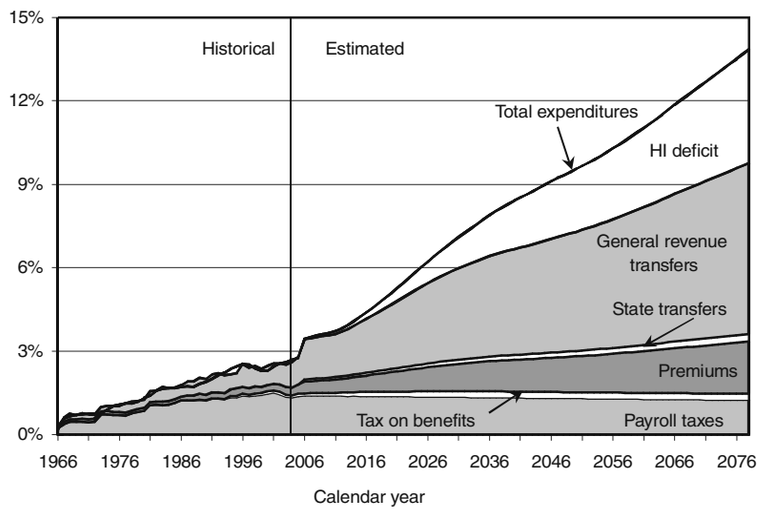


This forecast reflects (1) continuing growth in the volume and intensity of services provided per beneficiary throughout the projection period, (2) the impact of a large increase in beneficiaries starting in about 2010 as the 1946-65 baby boom generation turns age 65 and begins to receive benefits, and (3) the introduction of the Part D program in 2004, along with the other provisions of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (also known informally as the Medicare modernization act, or MMA). Other key demographic trends are also reflected, including continuing improvements in life expectancy and future birth rates at roughly the same level as during the last 2 decades.

The past and projected amounts of Medicare revenues, under present law, are shown in figure I.E2. Interest income is excluded since it would not be a significant part of program financing in the long range. Medicare revenues—from HI payroll taxes, HI income from the taxation of Social Security benefits, SMI Part D State transfers for certain Medicaid beneficiaries, HI and SMI premiums, and HI and SMI general revenues—are compared to total Medicare expenditures. Over the next 10 years, such Medicare revenues are estimated to be slightly below program expenditures, reflecting the automatic financing of SMI for Parts B and D plus a small but increasing deficit of HI expenditures over tax income. Thereafter, however, overall expenditures are projected to exceed aggregate revenues to a far

greater extent, as a result of the projected financial imbalance in the HI trust fund.

Figure I.E2.—Medicare Sources of Non-Interest Income and Expenditures as a Percentage of the Gross Domestic Product



As shown in figure I.E2, payroll tax revenues increased steadily as a percentage of GDP in the past, due to increases in the HI payroll tax rate and the limit on taxable earnings, the latter of which was eliminated in 1994. In the future, however, payroll taxes are projected to grow more slowly than GDP primarily because no further increases in the tax rate are scheduled in present law.[4] HI revenue from income taxes on Social Security benefits would increase as a share of GDP as additional beneficiaries become subject to such taxes.

By comparison, growth in SMI Part B and Part D premiums and general fund transfers is expected to continue to outpace GDP growth and HI payroll tax growth in the future. This phenomenon occurs primarily because, under present law, SMI revenue increases at the same rate as expenditures, whereas HI revenue does not. Thus, as the HI sources of revenue become increasingly inadequate to cover HI costs, SMI revenues would represent a growing share of total Medicare revenues. When the Part D program becomes fully implemented in 2006, general revenue transfers are expected to

[4]Although total worker compensation is projected to grow at the same rate as the GDP, wages and salaries are expected to increase more slowly and fringe benefits (health insurance in particular) more rapidly. Thus, earnings are projected to gradually decline as a percentage of GDP.

constitute the largest single source of income to the Medicare program as a whole—and would add significantly to the Federal Budget pressures. Although a smaller share of the total, SMI premiums would grow just as rapidly as general revenue transfers, thereby also placing a growing burden on beneficiaries.

The interrelationship between the Medicare program and the Federal Budget is an important topic—one that will become increasingly so over time as the general revenue requirements for SMI continue to increase. While these transfers are an important source of financing for the SMI trust fund, and are central to the automatic financial balance of the fund's two accounts, they represent a large and growing requirement for the Federal Budget. Moreover, in the absence of corrective legislation, the difference between HI tax revenues and expenditures would be met for a number of years by interest earnings on trust fund assets and by redeeming those assets. Both of these financial resources for the HI trust fund require cash transfers from the general fund of the Treasury, thereby placing a further obligation on the budget. Appendix E describes the interrelationship between the Federal Budget and the Medicare and Social Security trust funds and illustrates the programs' long-range financial outlook from both a "trust fund perspective" and a "budget perspective."

Beginning with the 2005 report, the Medicare modernization act requires the Board of Trustees to test whether the difference between program outlays and dedicated financing sources exceeds 45 percent of Medicare outlays.[5] If this level is attained within the first 7 years of the projection, a determination of "excess general funding" is triggered. Due to the interest in this new measure, we are including this information in the 2004 report. The difference is projected to first reach the 45-percent level in 2012. Consequently, the determination is not triggered this year.

This section has summarized the total financial obligation posed by Medicare and the manner in which it is financed. Under present law, however, the HI and SMI components of Medicare have separate and distinct trust funds, each with its own sources of revenues and mandated expenditures. Accordingly, the financial status of each Medicare trust fund must be assessed separately. The next two sections of this report present such assessments for the HI trust fund and the SMI trust fund, respectively.

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[5]The dedicated financing sources are HI payroll taxes, the HI share of income taxes on Social Security benefits, Part D State transfers, and beneficiary premiums. These sources are the first four layers depicted in figure I.E2.

F. FINANCIAL STATUS OF THE HI TRUST FUND

1. 10-Year Actuarial Estimates (2004-2013)

For 1998 through 2002, annual growth in HI expenditures averaged only about 2 percent as a result of the Balanced Budget Act of 1997 (BBA) and favorable price and utilization trends. Over the next 2 years, however, expenditures are estimated to increase by over 12 percent and 8 percent, respectively, in part as a result of the Medicare modernization act. After that, expenditure growth is expected to be about 6 percent per year. Currently, the HI trust fund is experiencing annual surpluses of income over expenditures. These surpluses are expected to decline and become deficits in 2010 and later.

Table I.F1 presents the projected operations of the HI trust fund under the intermediate assumptions for the next decade. At the beginning of 2004, HI assets significantly exceeded annual expenditures. The Board of Trustees has recommended that assets be maintained at a level at least equal to annual expenditures, to serve as an adequate contingency reserve in the event of adverse economic or other conditions.

Based on the 10-year projection shown in table I.F1, the Board of Trustees applies an explicit test of short-range financial adequacy, which is described in section II.B of this report. For the first time in 5 years, the HI trust fund does not meet this test because assets would fall below 100 percent of annual expenditures within the next 10 years.

Table I.F1.—Estimated Operations of the HI Trust Fund under Intermediate Assumptions, Calendar Years 2003-2013

[Dollar amounts in billions]

Calendar year	Total income[1]	Total expenditures	Change in fund	Fund at year end	Ratio of assets to expenditures[2] (percent)
2003[3]	$175.8	$154.6	$21.2	$256.0	152
2004	181.4	173.8	7.6	263.6	147
2005	195.8	188.3	7.5	271.1	140
2006	206.1	200.8	5.2	276.3	135
2007	216.6	212.6	4.0	280.3	130
2008	228.2	225.4	2.8	283.1	124
2009	239.9	239.2	0.7	283.8	118
2010	251.1	253.2	-2.1	281.7	112
2011	264.2	268.8	-4.6	277.1	105
2012	277.7	285.9	-8.2	268.8	97
2013	290.3	304.8	-14.5	254.4	88

[1]Includes interest income.
[2]Ratio of assets in the fund at the beginning of the year to expenditures during the year.
[3]Figures for 2003 represent actual experience.

Note: Totals do not necessarily equal the sums of rounded components.

In addition to not meeting the short-range test, the level of fund assets projected in this year's report is significantly lower than projected last year. Actual HI payroll tax income in 2003 and projected future amounts are lower than previously projected, reflecting very slow growth in wages in 2003, together with a downward adjustment of $5 billion in that year to compensate for an excess of payroll tax appropriations in 2002 and earlier. In addition, projected HI expenditures are higher than before, due to faster growth in inpatient hospital benefits. As noted, the recent Medicare legislation also adds significantly to HI costs, primarily through increased payments to rural hospitals and to private health plans under the Medicare Advantage program. Finally, these factors collectively result in lower levels of interest earnings.

2. 75-Year Actuarial Estimates (2004-2078)

Each year, estimates of the financial and actuarial status of the HI trust fund are prepared for the next 75 years. Although financial outcomes are inherently uncertain, particularly over periods as long as 75 years, such estimates can indicate whether the trust fund—as seen from today's vantage point—is considered to be in satisfactory financial condition.

Because of the difficulty in comparing dollar values for different periods without some type of relative scale, income and expenditure amounts are shown relative to the earnings in covered employment that are taxable under HI (referred to as "taxable payroll"). The ratio of tax income (including both payroll taxes and income from taxation of Social Security benefits, but excluding interest income) to taxable payroll is called the "income rate," and the ratio of expenditures to taxable payroll is the "cost rate."

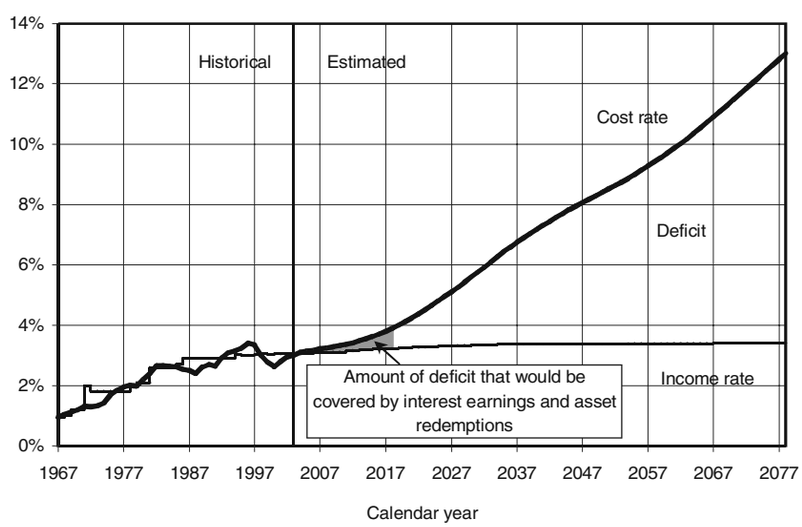
Since HI payroll tax rates are not scheduled to change in the future under present law, payroll tax income as a percentage of taxable payroll will remain constant at 2.90 percent. Income from taxation of benefits will increase only gradually as a greater proportion of Social Security beneficiaries become subject to such taxation over time. Thus, the income rate is not expected to increase significantly over current levels. The cost rate, though, will sharply escalate due to the retirement of the baby boom and the continuing health services cost growth, as mentioned in the prior section.

Figure I.F1 compares projected income and cost rates under the intermediate assumptions. As indicated, HI expenditures are projected to exceed tax income by a rapidly growing margin after

2003. By the end of the 75-year period, HI costs would be nearly four times the level of scheduled tax revenues—a very substantial deficit by any standard.

The shaded area in figure I.F1 represents the excess of expenditures over tax income that could be met by interest earnings and the redemption of trust fund assets. Both types of transactions occur through transfers from the general fund of the Treasury. In the absence of other changes, this process would begin in 2004 and continue through 2019, at which time the fund is projected to be exhausted. The HI trust fund's projected year of exhaustion often receives considerable attention. In practice, however, the demands on general revenue (to redeem the Treasury bonds held by the trust fund) would begin years before the exhaustion date. By 2018, in the absence of legislation to address the HI deficits, an estimated 16 percent of HI expenditures would have to be met by redeeming assets as opposed to being covered by tax income for that year.

Figure I.F1.—Long-Range HI Income and Cost as a Percentage of Taxable Payroll, Intermediate Assumptions



The long-range financial imbalance could be addressed in several different ways. In theory, the 2.90-percent payroll tax could be immediately increased to 6.02 percent, or expenditures could be reduced by a corresponding amount, although the latter change

would require an immediate 48-percent reduction in benefits.[6] More realistically, the tax and/or benefit changes could be made gradually, rather than immediately, but would ultimately have to reach much more substantial levels to eliminate the deficit throughout the long-range period. At the end of the 75-year period, for example, the tax rate would have to be roughly four times its current level, or benefits would have to be one-fourth of their projected amount (or some combination). These examples illustrate the severe magnitude of the projected long-range deficits for the HI trust fund and the need for reform.

The year-by-year cost rates and income rates shown in figure I.F1 can be summarized into single values representing, in effect, the average value over a given period. Based on the intermediate assumptions, an actuarial deficit of 3.12 percent of taxable payroll is projected for the 75-year period, representing the difference between the summarized income rate of 3.39 percent and the corresponding cost rate of 6.51 percent. Based on this measure, the HI trust fund continues to fail the Trustees' test for long-range financial balance.

Under the intermediate assumptions, the assets of the HI trust fund would start to decrease from about 152 percent of annual expenditures at the beginning of 2003 until becoming exhausted in 2019, as illustrated in figure I.F2. This date is 7 years earlier than estimated in the 2003 annual report, due to the lower revenue projections and higher expenditure projections mentioned earlier.

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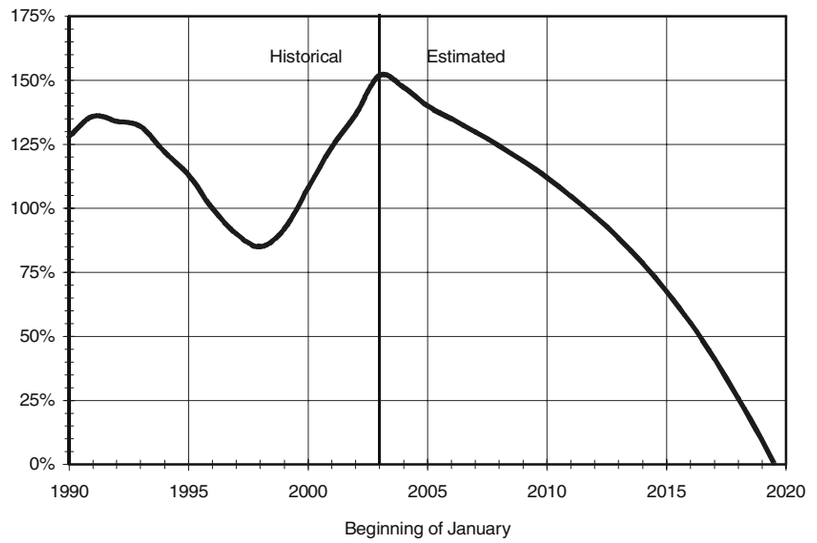
[6]Under either of these two scenarios, tax income would initially be substantially greater than expenditures, and trust fund assets would accumulate rapidly. Subsequently, however, financing would be increasingly inadequate, and assets would be drawn down to cover the difference. At the end of the 75-year period, tax income would cover only about 50 percent of annual expenditures. Level changes in either taxes or benefits, consequently, would only temporarily address the long-range financial imbalance and would result in unusual patterns of asset accumulation and redemption.

Figure I.F2.—HI Trust Fund Balance at Beginning of Year as a Percentage of Annual Expenditures



To the extent that actual future conditions vary from the intermediate assumptions, the date of exhaustion could differ substantially in either direction from this estimate. Under the low cost assumptions, trust fund assets would not be depleted until 2055. Under the high cost assumptions, however, asset depletion would occur in 2012.

G. FINANCIAL STATUS OF THE SMI TRUST FUND

SMI differs fundamentally from HI in regard to the nature of financing and the method by which financial status is evaluated. As a result of the Medicare modernization act, SMI is now composed of two parts, Part B and Part D, each with its own separate account within the SMI trust fund. The financial status of the SMI trust fund must be determined by evaluating the financial status of each account separately, since there is no provision in the law for transferring assets between the Part B and Part D accounts. The nature of the financing for both parts of SMI is similar, in that the Part B premium and the Part D premium, and the corresponding transfers from general revenues for each part, are established annually at a level sufficient to cover the following year's estimated expenditures. Thus, each account within SMI is automatically in financial balance under present law. For OASDI and HI, however, financing established many years earlier may prove significantly higher or lower than subsequent actual costs. Moreover, Part B and Part D are voluntary (whereas OASDI and HI are generally compulsory), and income is not based on payroll taxes. These disparities result in a financial assessment that differs in some respects from that for OASDI or HI, as described in the following sections.

1. 10-Year Actuarial Estimates (2004-2013)

Table I.G1 shows the estimated operations of the Part B account, the Part D account, and the total SMI trust fund under the intermediate assumptions during calendar years 2003 through 2013. For Part B, expenditures are estimated to grow at an average annual rate of about 6.6 percent for the 10-year period 2004 to 2013. Part B income growth normally matches expenditure growth fairly closely. In 2004 and 2005, however, faster growth in income will be necessary to restore the Part B assets to an adequate contingency reserve. For comparison, GDP is expected to grow at an average annual rate of 5.0 percent over that same period.

It should be noted that the projected Part B expenditure and income growth is unrealistically low, due to the structure of physician payment updates under current law. Future physician payment increases must be adjusted downward if cumulative past actual physician spending exceeds a statutory target. Prior to the Medicare modernization act (MMA), past spending was already above the target level. The MMA raised the physician fee updates for 2004 and 2005, but without raising the target. Together, these factors yield

projected physician updates of about –5 percent for 7 consecutive years, beginning in 2006. Multiple years of significant reductions in physician payments per service are very unlikely to occur before legislative changes intervene, but these payment reductions are required under the current law payment system and are reflected in the Part B projections shown in this report.

Table I.G1.—Estimated Operations of the SMI Trust Fund under Intermediate Assumptions, Calendar Years 2003-2013

[Dollar amounts in billions]

Calendar year	Total income[1]	Total expenditures	Change in fund	Fund at year end
Part B account:				
2003[2]	$115.8	$126.1	-$10.3	$24.0
2004	133.2	134.9	-1.7	22.2
2005	155.1	146.7	8.4	30.6
2006	160.1	156.7	3.4	34.0
2007	167.4	165.8	1.6	35.6
2008	178.0	176.2	1.9	37.5
2009	188.2	186.2	2.1	39.5
2010	199.0	196.5	2.5	42.1
2011	210.8	208.0	2.7	44.8
2012	225.0	221.4	3.6	48.4
2013	243.2	238.4	4.8	53.2
Part D account:				
2003[2]	—	—	—	—
2004	$3.0	$3.0	$0.0	$0.0
2005	12.0	3.5	8.5	8.5
2006	85.8	85.0	0.8	9.3
2007	93.9	93.0	0.9	10.2
2008	102.8	101.9	0.9	11.1
2009	112.2	111.2	1.0	12.1
2010	122.0	120.9	1.0	13.1
2011	132.8	131.4	1.4	14.6
2012	147.2	145.6	1.6	16.2
2013	163.5	161.8	1.8	17.9
Total SMI:				
2003[2]	$115.8	$126.1	-$10.3	$24.0
2004	136.2	137.9	-1.7	22.2
2005	167.2	150.3	16.9	39.1
2006	245.9	241.7	4.2	43.3
2007	261.3	258.9	2.5	45.8
2008	280.9	278.1	2.8	48.6
2009	300.4	297.4	3.0	51.6
2010	321.0	317.4	3.6	55.2
2011	343.6	339.4	4.1	59.4
2012	372.2	367.0	5.2	64.5
2013	406.8	400.2	6.6	71.1

[1]Includes interest income.
[2]Figures for 2003 represent actual experience.

Part B income and outgo are projected to remain in balance as a result of the annual adjustment of premium and general revenue income to match costs. Assets held in the Part B account of the trust fund are projected to decrease in 2004 mainly due to the enactment of the Medicare modernization act, which increased spending for 2004

after the financing had already been set for that year.[7] Moreover, actual program expenditures for calendar year 2003 were somewhat higher than expected, exacerbating the expected financial imbalance in 2004. As a result of the actual decline in assets in 2003, and the expected further decline in 2004, assets at the end of the year will be well below the normal level that is optimal for the Part B account. Consequently, this would require a 17 percent increase in the 2005 premium along with the corresponding general revenue transfers in order to return to an adequate contingency reserve. After 2005, assets held in the Part B account are projected to maintain an adequate contingency reserve for the Part B account of the trust fund.

The Part D account of the SMI trust fund was established in 2004 for the Medicare prescription drug coverage, which begins in 2006. For 2004 and 2005, the Transitional Assistance Account will contain assets for transitional assistance under the prescription drug card program, with any remaining assets transferred to the Part D account in 2006.[8] Income and expenditures for the Part D account are projected to grow at an average annual rate of 9.7 percent for the 7-year period 2007 to 2013. As with Part B, income and outgo are projected to remain in balance as a result of the annual adjustment of premium and general revenue income to match costs. Assets held in the Part D account of the fund are expected to increase sufficiently to maintain an adequate contingency reserve in the account.

The primary test of financial adequacy for Parts B and D pertains to the level of the financing that has been formally established for a given period (normally, through the end of the current calendar year). As noted, the financial adequacy must be determined for Part B and Part D separately. The financing for each part of SMI is considered satisfactory if it is sufficient to fund all services provided through that period, as well as associated administrative expenses. Further, to protect against the possibility that cost increases under either part of SMI will be higher than expected, the accounts of the trust fund need assets adequate to cover a reasonable degree of variation between actual and projected costs. For Part B, the financing established through December 2004, together with a significant amount of Part B account trust fund assets, is estimated to be

[7]In addition to the higher physician payment update for 2004, the legislation increased payments to rural health providers, therapists, and private Medicare Advantage health plans. These cost increases in 2004 are partially offset by savings in other Part B services.

[8]For simplicity, the Transitional Assistance Account is treated in this report as if it were included in the Part D account.

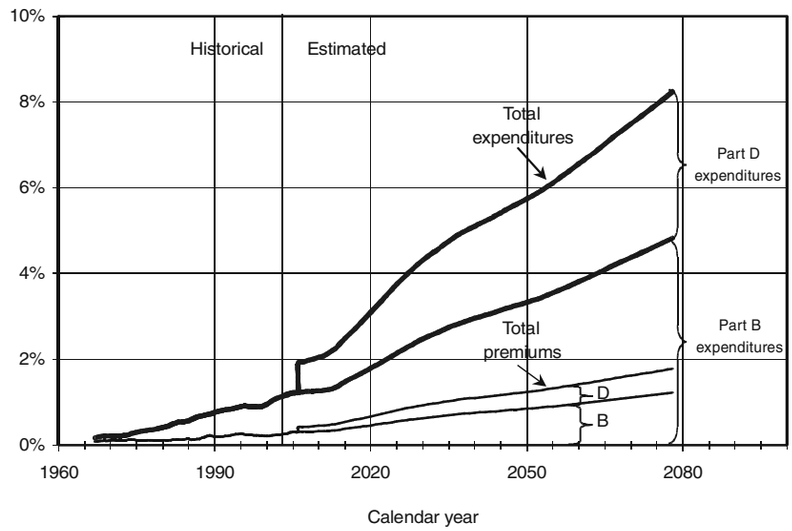
sufficient to cover benefits and administrative costs incurred through that time period. The financing established for the transitional account for Part D is estimated to be sufficient to cover benefits and administrative costs incurred through 2004. This assessment for the Part D account is preliminary, pending final decisions on the specific process for appropriating general revenues to the transitional account. At this time, appropriations are expected to be made on a daily, "as needed" basis to match daily expenditures. In this instance, asset adequacy is of minimal importance. If other procedures are adopted, the evaluation of financial adequacy will need to correspond.

The amount of the contingency reserve needed in Part B and Part D is much smaller (both in absolute dollars and as a fraction of annual costs) than in HI or OASDI. This is so because the premium rate and corresponding general revenue transfers for Part B and Part D are determined annually based on estimated future costs, while the HI and OASDI payroll tax rates are set in law and are therefore much more difficult to adjust should circumstances change.

2. 75-Year Actuarial Estimates (2004-2078)

Figure I.G1 shows past and projected total SMI expenditures and premium income as a percentage of the Gross Domestic Product (GDP). Under the intermediate assumptions, annual SMI expenditures would grow from about 1 percent of GDP in 2003 to 2 percent of GDP in 2006 with the commencement of the general prescription drug coverage. Then, within 25 years, they would grow to 4 percent of GDP and to more than 8 percent by the end of the projection period.

Figure I.G1.—SMI Expenditures and Premiums as a Percentage of the Gross Domestic Product



The projected SMI cost under present law would place steadily increasing demands on beneficiaries and society at large. Average per-beneficiary costs for Part B and D benefits are projected to increase in most years by at least 5 percent annually. The associated beneficiary premiums would increase by approximately the same rate, as would the average levels of beneficiary coinsurance for covered services. In contrast, from one generation to the next, scheduled Social Security benefit levels increase at about the rate of growth in average earnings (roughly 3.9 percent).[9] Over time, the Part B and Part D premiums and coinsurance amounts paid by beneficiaries would typically represent a growing share of their total Social Security and other income.

Similarly, aggregate SMI general revenue financing for Parts B and D is expected to increase by roughly 6.5 percent annually, well in excess of the projected 4.4-percent growth in GDP. As a result, if personal and corporate Federal income taxes are maintained at their long-term historical level, relative to the national economy in the future, then SMI general revenue financing would represent a growing share of total income taxes.

[9]For each generation, after they are initially eligible, their benefit level is adjusted just to keep up with inflation (2.8 percent).

H. CONCLUSION

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 introduced the most significant changes to Medicare since the program's enactment in 1965. The new drug benefit will bring Medicare more in line with modern insurance coverage and medical practice. It will add substantially to the overall cost of Medicare, however, and increase the proportion of such costs that are financed from general revenues.

Total Medicare expenditures were $280.8 billion in 2003 and are expected to increase in future years at a faster pace than either workers' earnings or the economy overall. As a percentage of GDP, expenditures are projected to increase from 2.6 percent currently to 13.8 percent by 2078 (based on our intermediate set of assumptions). The level of Medicare expenditures is expected to exceed that for Social Security in 2024 and, by 2078, to represent almost twice the cost of Social Security. Growth of this magnitude, if realized, would place a substantially greater strain on the nation's workers, Medicare beneficiaries, and the Federal Budget.

The HI trust fund is projected to be exhausted in 2019—7 years earlier than estimated in last year's report. About 2 years of this change are attributable to the new legislation, which raises payments to private health plans and rural health providers. The balance of the impact is due to other factors, including higher spending and lower tax revenues in 2003 than expected (2 years), associated assumption adjustments (1.5 years), improved data on the health status of beneficiaries in HMOs (1 year), and model refinements for certain hospital payments (0.5 year). The HI trust fund does not meet our short-range test of financial adequacy for the first time since the 1999 report.

The long-range financial projections for HI continue to show a very substantial financial imbalance. The long-range HI actuarial deficit in this year's report is 3.12 percent of taxable payroll, based on the intermediate assumptions. Beginning in 2004, tax income is expected to be less than expenditures, and trust fund assets would begin to decline in 2010. Without legislation to address these deficits, HI would increasingly rely on interest income and the redemption of fund assets, thereby adding to the draw on the Federal Budget. By the end of the 75-year period, scheduled taxes would be sufficient to cover only one-fourth of projected expenses. Accordingly, bringing the HI program into long-range financial balance would require very substantial increases in revenues and/or reductions in benefits. As in past reports, the HI trust fund fails to meet our long-range test of close actuarial balance.

The financial outlook for SMI is very different than for HI, although rapid expenditure growth is a serious issue for both components of Medicare. The Medicare modernization act established a separate account within the SMI trust fund to handle transactions for the new Medicare drug benefit. Because there is no authority to transfer assets between the new Part D account and the existing Part B account, it is necessary to evaluate each account's financial adequacy separately. The financing established for the Part B account for calendar year 2004, along with a portion of account assets, is estimated to be sufficient to cover expenditures for that year and to maintain a minimally adequate contingency reserve. The Part B premium and corresponding general revenue transfers will need to be increased sharply for 2005 to match projected costs and to restore Part B assets to a more adequate reserve level.

The operations of the Part D account in 2004 and 2005 will relate only to the transitional assistance benefit for low-income beneficiaries. No financial imbalance is likely, since the general revenue subsidy for this benefit is expected to be drawn on a daily, as-needed basis. Potential variations in Part D costs in 2006 and later will necessitate an adequate asset balance.

For both the Part B and Part D accounts, income is projected to equal expenditures for all future years—but only because beneficiary premiums and general revenue transfers will be set to meet expected costs each year. For HI and SMI in total, the difference between program expenditures and dedicated financing sources is estimated to represent 37 percent of total outlays in 2004. With the advent of the full prescription drug benefit in 2006, this ratio is estimated to increase to 43 percent, and to continue to grow thereafter, first exceeding 45 percent in 2012.

The projections shown in this report continue to demonstrate the need for timely and effective action to address Medicare's financial challenges—both the long-range financial imbalance facing the HI trust fund and the heightened problem of rapid growth in expenditures. We believe that solutions can and must be found to ensure the financial integrity of HI in the long term and to reduce the rate of growth in Medicare costs. Consideration of such reforms should occur in the relatively near future. The sooner the solutions are enacted, the more flexible and gradual they can be. Moreover, the early introduction of reforms increases the time available for affected individuals and organizations—including health care providers, beneficiaries, and taxpayers—to adjust their expectations. We believe that prompt, effective, and decisive action is necessary to address these challenges.

II. ACTUARIAL ANALYSIS

A. MEDICARE FINANCIAL PROJECTIONS

Medicare is the nation's second largest social insurance program, exceeded only by Social Security (OASDI). Although Medicare's two components—Hospital Insurance and Supplementary Medical Insurance—are very different from each other in many key respects, it is important to consider the overall cost of Medicare and the manner in which that cost is financed. By reviewing Medicare's total expenditures, the financial obligation posed by the program can be assessed. Similarly, the sources and relative magnitudes of HI and SMI revenues are an important policy matter.

The issues of Medicare's total cost to society and how that cost is met are different from the question of the financial status of the Medicare trust funds. The latter focuses on whether a specific trust fund's income and expenditures are in balance. As discussed later in this section, such an analysis must be performed for each trust fund individually. The separate HI and SMI financial projections prepared for this purpose, however, can be usefully combined for the broader purposes outlined above. To that end, this section presents information on combined HI and SMI costs and revenues. Sections II.B and II.C of this report present detailed assessments of the financial status of the HI trust fund and the SMI trust fund, respectively.

1. 10-year Actuarial Estimates (2004-2013)

Table II.A1 shows past and projected Medicare income, expenditures, and trust fund assets in dollar amounts for calendar years.[10] Projections are shown under the intermediate set of assumptions for the short-range projection period 2004 through 2013. (A more detailed breakdown of expenditures and income for HI and SMI separately is provided in tables II.B5 and II.C1.)

[10]Amounts are shown on a "cash" basis, reflecting actual expenditures made during the year, even if the payments were for services performed in an earlier year. Similarly, income figures represent amounts actually received during the year, even if incurred in an earlier year.

Table II.A1.—Total Medicare Income, Expenditures, and Trust Fund Assets during Calendar Years 1970-2013

[In millions]

Calendar year	Total income	Total expenditures	Net change in assets	Assets at end of year
Historical data:				
1970	$8.2	$7.5	$0.7	$3.4
1975	17.7	16.3	1.3	12.0
1980	37.0	36.8	0.1	18.3
1985	76.5	72.3	4.2	31.4
1990	126.3	111.0	15.3	114.4
1995	175.3	184.2	-8.9	143.4
1996	210.2	200.3	9.9	153.3
1997	212.1	213.6	-1.5	151.8
1998	228.3	213.4	14.9	166.6
1999	232.5	213.0	19.5	186.2
2000	257.1	221.8	35.3	221.5
2001	273.3	244.8	28.5	250.0
2002	284.8	265.7	19.1	269.1
2003	291.6	280.8	10.8	280.0
Intermediate estimates:				
2004	317.6	311.8	5.9	285.8
2005	363.0	338.6	24.4	310.2
2006	452.0	442.6	9.4	319.6
2007	478.0	471.5	6.5	326.1
2008	509.0	503.4	5.6	331.7
2009	540.3	536.5	3.7	335.4
2010	572.1	570.7	1.5	336.9
2011	607.7	608.2	-0.5	336.4
2012	649.9	653.0	-3.0	333.4
2013	697.0	704.9	-7.9	325.5

Note: Totals do not necessarily equal the sums of rounded components.

As indicated in table II.A1, Medicare expenditures have increased rapidly during most of the program's history and are expected to continue doing so in the future. Health care cost increases, including those for Medicare, Medicaid, and private health insurance, are affected by the following factors:

- Growth in the number of beneficiaries;
- Increases in the prices paid per service, which reflect both higher wages for health care workers and inflation in the goods and services purchased by health care providers;
- Increases in the average number of services per beneficiary ("utilization"); and
- Increases in the average complexity of services ("intensity").

Medicare expenditures are projected to increase at an average annual rate of 7.5 percent during 2004-2013, except in 2006 when the addition of the new Medicare prescription drug benefit would substantially increase the level of program costs. The average growth rate reflects the continuing impact of each of the factors listed above,

together with the effects of the other provisions of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (also known informally as the Medicare modernization act, or MMA).

Through most of Medicare's history, trust fund income has kept pace with increases in expenditures.[11] In the future, however, Medicare income is projected to increase less rapidly than expenditures, primarily because HI payroll tax revenues would not keep pace with HI benefits under current law. In contrast to the growth factors listed above for health care costs, HI payroll taxes increase only as a function of the number of workers and increases in their average earnings. Moreover, with past declines in birth rates, continuing improvements in life expectancy, and prevailing rates of disability incidence, the number of workers is expected to grow slowly while the number of beneficiaries increases much more rapidly.

Past excesses of income over expenditures have been invested in U.S. Treasury securities, with total fund assets accumulating to $280 billion at the end of calendar year 2003. Combined assets are projected to continue increasing until reaching about $337 billion in 2010 and to begin declining soon thereafter.[12]

2. 75-year Actuarial Estimates (2004-2078)

Expressing Medicare expenditures as a percentage of GDP gives a relative measure of the size of the Medicare program compared to the general economy. The projection of this measure affords the public an idea of the relative financial resources that will be necessary to pay for Medicare services.

Table II.A2 shows past and projected Medicare expenditures expressed as a percentage of GDP.[13] Medicare expenditures represented 0.7 percent of GDP in 1970 and had grown to 2.6 percent of GDP by 2003, reflecting rapid increases in the factors affecting health care cost growth, as mentioned previously. In 2006, Medicare will begin to provide subsidized access to prescription drug coverage

[11]This balance resulted from periodic increases in HI payroll tax rates and other HI financing, annual increases in SMI premium and general revenue financing rates (to match the following year's estimated expenditures), and from frequent legislation designed to slow the rate of growth in expenditures.

[12]See sections II.B and II.C regarding the asset projections for HI and SMI, separately.

[13]In contrast to the expenditure amounts shown in table II.A1, long-range expenditure projections are shown on an incurred basis. Incurred amounts relate to the expenditures for services performed in a given year, even if those expenditures are paid in a later year.

through Part D, which will increase projected Medicare expenditures to 3.4 percent of GDP.

Continuing rapid growth is expected thereafter, with total Medicare expenditures projected to reach almost 14 percent of GDP by 2080. For comparison, projected Medicare costs would exceed those for Social Security in 2024 and would continue to grow more rapidly until, in 2078, the expenditure level for Medicare would be nearly twice that for Social Security.

As indicated, part of the projected substantial increase is attributable to the new prescription drug benefit in Medicare. In its first full year of operation, this benefit is expected to increase Medicare costs by nearly one-fourth. With continuing faster growth in drug costs, relative to the traditional HI and SMI Part B expenditures, this new benefit is projected to increase cost by roughly one-third for 2020 and later.[14] Projected costs for HI and SMI Part B are also somewhat greater than shown in last year's Trustees Report, for the reasons given in sections II.B and II.C, respectively.

[14]Costs beyond the first 25 years for HI, SMI Part B, and SMI Part D are each based on the assumption that age-sex-adjusted per beneficiary expenditures will increase as the same rate as per capita GDP plus 1 percentage point.

Table II.A2.—HI and SMI Incurred Expenditures as a Percentage of the Gross Domestic Product

Calendar year	HI Part A	SMI Part B	SMI Part D	Total
Historical data:				
1970	0.52	0.22	—	0.74
1975	0.73	0.30	—	1.03
1980	0.90	0.41	—	1.32
1985	1.12	0.56	—	1.69
1990	1.14	0.76	—	1.90
1995	1.55	0.90	—	2.45
1996	1.63	0.90	—	2.53
1997	1.62	0.89	—	2.52
1998	1.48	0.89	—	2.38
1999	1.39	0.90	—	2.29
2000	1.34	0.95	—	2.29
2001	1.42	1.03	—	2.46
2002	1.46	1.09	—	2.55
2003	1.45	1.13	—	2.59
Intermediate estimates:				
2004	1.50	1.17	0.02	2.68
2005	1.53	1.20	0.02	2.76
2006	1.55	1.22	0.67	3.44
2007	1.57	1.24	0.70	3.51
2008	1.58	1.25	0.73	3.56
2009	1.60	1.26	0.75	3.61
2010	1.62	1.27	0.78	3.66
2011	1.63	1.28	0.81	3.72
2012	1.66	1.30	0.85	3.81
2013	1.69	1.34	0.91	3.93
2015	1.75	1.47	1.01	4.24
2020	1.98	1.79	1.31	5.08
2025	2.28	2.14	1.61	6.04
2030	2.64	2.47	1.84	6.95
2035	3.00	2.74	2.01	7.75
2040	3.32	2.96	2.14	8.41
2045	3.59	3.14	2.27	9.00
2050	3.82	3.33	2.41	9.56
2055	4.05	3.55	2.56	10.16
2060	4.33	3.81	2.74	10.89
2065	4.66	4.09	2.92	11.68
2070	5.02	4.37	3.11	12.51
2075	5.39	4.65	3.30	13.34
2080	5.61	4.82	3.42	13.85

As with the other projections in this report, the estimates shown in table II.A2 assume no change in current law. The 75-year projection period fully allows for the presentation of future developments that may reasonably be expected to occur, such as the impact of a large increase in enrollees that will begin within the next 10 years. This increase in the number of beneficiaries will occur because the relatively large number of persons born during the period between the end of World War II and the mid-1960s (known as the baby boom) will reach eligibility age and begin to receive benefits. Moreover, as the average age of Medicare beneficiaries increases, these individuals will experience greater health care utilization and costs, thereby

adding further to growth in program expenditures. Table II.A3 shows past and projected enrollment in the Medicare program.

Table II.A3.—Medicare Enrollment

[In thousands]

Calendar year	HI Part A	SMI Part B	SMI Part D	Part C[1]	Total[2]
Historical data:					
1970	20,104	19,496	—	—	20,398
1975	24,481	23,744	—	—	24,864
1980	28,002	27,278	—	—	28,433
1985	30,621	29,869	—	842	31,081
1990	33,747	32,567	—	1,181	34,251
1995	37,175	35,641	—	2,714	37,594
1996	37,701	36,104	—	3,672	38,122
1997	38,099	36,445	—	4,735	38,514
1998	38,472	36,756	—	5,732	38,889
1999	38,765	37,022	—	6,191	39,187
2000	39,257	37,335	—	6,233	39,688
2001	39,669	37,667	—	5,608	40,102
2002	40,100	38,049	—	5,005	40,523
2003	40,589	38,465	—	4,655	41,004
Intermediate estimates:					
2004	41,399	39,041	4,651	4,698	41,805
2005	42,006	39,547	4,726	5,305	42,404
2006	42,680	40,083	40,736	9,528	43,069
2007	43,463	40,713	41,468	11,232	43,843
2008	44,347	41,447	42,296	12,221	44,718
2009	45,268	42,216	43,158	13,253	45,629
2010	46,241	43,009	44,069	13,588	46,592
2011	47,359	43,923	45,117	13,961	47,700
2012	48,697	45,055	46,374	14,344	49,029
2013	50,173	46,332	47,761	14,741	50,496
2015	53,198	48,967	50,607	15,386	53,505
2020	61,608	56,349	58,800	[3]	61,886
2025	70,917	64,673	67,606	[3]	71,185
2030	78,794	72,060	75,063	[3]	79,063
2035	83,806	76,530	79,818	[3]	84,078
2040	86,792	79,247	82,659	[3]	87,064
2045	88,992	81,273	84,758	[3]	89,265
2050	91,230	83,449	86,884	[3]	91,504
2055	93,878	85,992	89,393	[3]	94,153
2060	97,084	88,951	92,432	[3]	97,361
2065	100,040	91,591	95,237	[3]	100,317
2070	102,924	94,240	97,971	[3]	103,200
2075	105,325	96,466	100,244	[3]	105,597
2080	107,770	98,746	102,184	[3]	108,037

[1]Number of beneficiaries enrolled in a Medicare Advantage plan. From early 1980s to 1997 represents those enrolled in a risk HMO, and from 1998 to 2003 represents those enrolled in a Medicare+Choice plan. In order to enroll in a Medicare Advantage plan, a beneficiary must be enrolled in both Part A and Part B. Therefore, Part C enrollment is a subset of both Part A and Part B enrollment.
[2]Number of beneficiaries with HI and/or SMI coverage.
[3]Enrollment in Medicare Advantage plans is not explicitly projected beyond 2015.

The past and projected amounts of Medicare revenues as a percentage of GDP are shown in table II.A4, based on the intermediate assumptions. Interest income is excluded, since, under present law, it would not be a significant part of program financing in the long range.

Table II.A4.—Medicare Sources of Income and Expenditures as a Percentage of the Gross Domestic Product

Calendar year	Payroll taxes	Tax on benefits	Premiums[1]	State transfers	General revenue	Total income[2]	Total expenditures
Historical data:							
1970	0.5	—	0.1	—	0.2	0.8	0.7
1980	0.9	—	0.1	—	0.3	1.3	1.3
1990	1.2	—	0.2	—	0.6	2.0	1.9
2000	1.5	0.1	0.2	—	0.7	2.5	2.3
2003	1.4	0.1	0.3	—	0.8	2.5	2.6
Intermediate estimates:							
2010	1.4	0.1	0.5	0.1	1.5	3.6	3.7
2020	1.4	0.2	0.7	0.1	2.3	4.7	5.1
2030	1.4	0.2	1.0	0.1	3.2	5.9	6.9
2040	1.3	0.2	1.1	0.2	3.8	6.7	8.4
2050	1.3	0.2	1.3	0.2	4.3	7.3	9.6
2060	1.3	0.2	1.5	0.2	4.9	8.1	10.9
2070	1.3	0.2	1.7	0.3	5.6	9.0	12.5
2080	1.2	0.2	1.9	0.3	6.2	9.9	13.8

[1]Includes premium revenue from HI and both accounts in the SMI trust fund.
[2]Excludes interest earnings on invested HI and SMI trust fund assets.

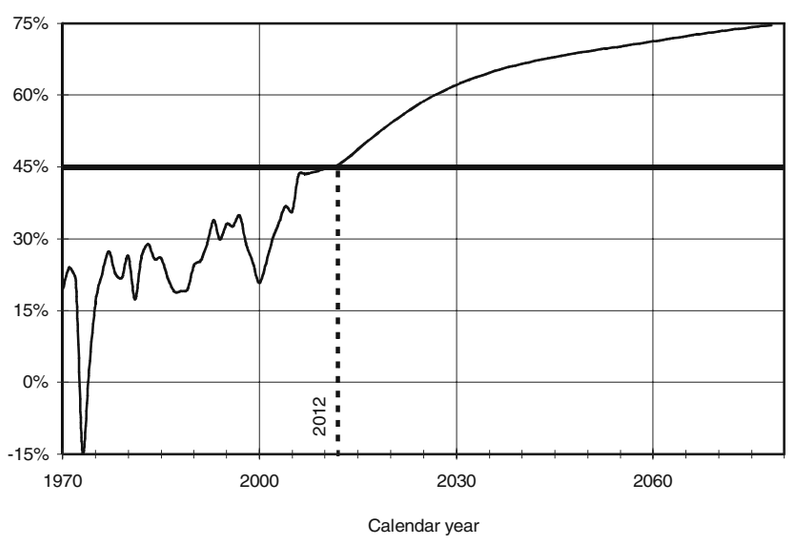
Note: Totals do not necessarily equal the sums of rounded components.

In 2003, HI payroll taxes represented 55 percent of total non-interest income to the Medicare program. General revenues (primarily those for SMI) were the next largest source of overall financing, at 32 percent. Beneficiary premiums (again, primarily for SMI) were third, at 11 percent. Under current law, HI tax revenues are projected to fall increasingly short of HI expenditures after 2003. In contrast, SMI premium and general revenues will keep pace with SMI expenditure growth, and, once fully phased down[15], State payments (on behalf of Medicare beneficiaries who also qualify for full Medicaid benefits) will grow with Part D expenditures. Consequently, in the absence of legislation, HI tax income would represent a declining portion of total Medicare revenues. In 2018, for example, just prior to the projected exhaustion of the HI trust fund, currently scheduled HI payroll taxes would represent about 32 percent of total non-interest Medicare income. General revenues and beneficiary premiums would equal about 48 and 14 percent, respectively.

[15]State payments will amount to 90 percent of their projected foregone prescription drug payments in 2006, with this percentage phasing down over a 10-year period to 75 percent in 2015. See appendix A for a description of this provision of the Medicare modernization act.

The Medicare modernization act requires an expanded analysis of the combined expenditures and dedicated revenues of the HI and SMI trust funds. In particular, a determination needs to be made as to whether projected "general revenue funding" exceeds 45 percent of total Medicare outlays within the next 7 years. For this purpose, general revenue funding is defined in the law as total Medicare outlays minus dedicated Medicare financing sources. Dedicated Medicare financing sources include HI payroll taxes; income from taxation of Social Security benefits; State transfers for the prescription drug benefit; premiums paid under Parts A, B, and D; and any gifts received by the Medicare trust funds. Figure II.A1 shows the projected difference between total Medicare outlays and dedicated funding sources as a percentage of total outlays over the long-range projection period.

Figure II.A1.—Projected Difference between Total Medicare Outlays and Dedicated Financing Sources, as a Percentage of Total Outlays



As indicated in figure II.A1, the difference between outlays and dedicated financing would first exceed 45 percent of total expenditures in 2012 under the intermediate assumptions. Since this estimate is beyond the 7-year test period prescribed in the law, a determination of "excess general revenue Medicare funding" is not made in this report.

If in two consecutive reports, it is determined that the difference between Medicare outlays and dedicated financing sources will reach

45 percent within the first 7 years, then a "Medicare funding warning" will be triggered, indicating that a trust fund's financing is inadequate or that the general revenues provided under current law are becoming unduly large. This funding would require the President to submit to Congress, within 15 days after the date of the next budget submission, proposed legislation to respond to the warning. Congress is then required to consider this legislation on an expedited basis. This new requirement will help call attention to Medicare's impact on the Federal Budget.

As indicated in figure II.A1, the difference between outlays and dedicated funding sources is projected to continue growing throughout the 75-year period, reaching 62 percent of total outlays in 2030 and 74 percent in 2075. Although the law characterizes this difference as "general revenue funding," it is important to recognize that current law provides for general revenue transfers only for certain Part A, B, and D purposes, as follows:

- Financing specified portions of SMI Part B and Part D expenditures;
- Reimbursing the HI trust fund for the costs of certain uninsured beneficiaries;
- Paying interest on invested assets of the trust funds; and
- Redeeming the special Treasury securities held as assets by the trust funds.

The difference between outlays and dedicated funding sources, as shown in figure II.A1, will reflect all of these general revenue transfers, plus the imbalance between HI expenditures and dedicated revenues after 2019, for which there is no provision under current law to cover the shortfall. In particular, transfers from the general fund of the Treasury could not be made for this purpose without new legislation.

The new law also requires that projected growth in the difference between outlays and dedicated revenues be compared with other health spending growth rates. Table II.A5 contains this comparison.

Table II.A5.—Growth Rate Comparison

Calendar year	Average annual growth in: Incurred outlays minus dedicated revenues	Incurred Medicare outlays	GDP
2000	-4.7%	5.6%	5.9%
2001	38.6	10.2	2.6
2002	21.0	7.5	3.6
2003	15.8	6.4	4.7
2004	14.4	9.4	5.6
2005	6.5	7.6	4.7
2006	59.9	26.9	4.8
2007	8.9	7.0	5.1
2008	7.6	6.9	5.3
2009	8.2	6.6	5.2
2010	7.4	6.5	5.1
2011	7.1	6.5	5.0
2012	9.3	7.3	4.8
2013	10.3	7.9	4.7
2014-2028	10.1	8.1	4.5
2029-2053	6.7	6.1	4.4
2054-2078	6.0	5.8	4.3

As shown in table II.A5, the gap between outlays and dedicated revenues, and Medicare outlays, will both increase substantially when the prescription drug benefit is fully implemented in 2006. In addition, the outlay gap will increase faster than outlays throughout the 75-year period, since the dedicated sources of income to the HI trust fund will cover a decreasing percentage of HI outlays.

Under current law, the HI and SMI trust funds are separate and distinct, each with its own sources of financing. There are no provisions for using HI revenues to finance SMI expenditures, or vice versa, or for lending assets between the two trust funds. Moreover, the benefit provisions, financing methods, and, to a lesser degree, eligibility rules are very different between these Medicare components. In particular, both accounts of the SMI trust fund are automatically in financial balance under current law, whereas the HI fund is not.

For these reasons, the financial status of the Medicare trust funds can be evaluated only by separately assessing the status of each fund. The following two sections of this report present such assessments for HI and SMI, respectively.

B. HI FINANCIAL STATUS

1. Financial Operations in Fiscal Year 2003

The Federal Hospital Insurance Trust Fund was established on July 30, 1965 as a separate account in the U.S. Treasury. All the HI financial operations are handled through this fund.

A statement of the revenue and expenditures of the fund in fiscal year 2003, and of its assets at the beginning and end of the fiscal year, is presented in table II.B1.

The total assets of the trust fund amounted to $229,105 million on September 30, 2002. During fiscal year 2003, total revenue amounted to $175,813 million, and total expenditures were $153,792 million. Total assets thus increased by $22,021 million during the year, to $251,127 million on September 30, 2003.

Table II.B1.—Statement of Operations of the HI Trust Fund during Fiscal Year 2003
[In thousands]

Total assets of the trust fund, beginning of period	$229,105,402
Revenue:	
Payroll taxes	$149,839,122
Income from taxation of OASDI benefits	8,318,000
Interest on investments	14,757,664
Premiums collected from voluntary participants	1,597,950
Transfer from Railroad Retirement account	395,700
Reimbursement, transitional uninsured coverage	393,000
Deposits arising from State agreements	1
Reimbursement, program management general fund	120,083
Interest on reimbursements, SSA[1]	-4,144
Interest on reimbursements, CMS[1]	1,717
Interest on reimbursements, Railroad Retirement	30,577
Other	1,644
Reimbursement, Union Activity	1,039
Transfer from Department of Defense Account	4,000
Fraud and abuse control receipts:	
Criminal fines	2,475
Civil monetary penalties	7,150
Civil penalties and damages, CMS	4,054
Civil penalties and damages, Department of Justice	228,828
Fraud and abuse appropriation for FBI	114,000
Total revenue	$175,812,861
Expenditures:	
Net benefit payments	$151,250,153
Administrative expenses:	
Treasury administrative expenses	58,058
Salaries and expenses, SSA[2]	586,586
Salaries and expenses, CMS[3]	887,434
Salaries and expenses, Office of the Secretary, HHS	5,617
Medicare Payment Advisory Commission	5,117
Fraud and abuse control expenses:	
HHS Medicare integrity program	732,740
HHS Office of Inspector General	89,444
Department of Justice	62,356
FBI	114,000
Total expenditures	$153,791,506
Net addition to the trust fund	22,021,360
Total assets of the trust fund, end of period	$251,126,758

[1]A positive figure represents a transfer to the HI trust fund from the other trust funds. A negative figure represents a transfer from the HI trust fund to the other funds.
[2]For facilities, goods, and services provided by SSA.
[3]Includes administrative expenses of the intermediaries.

Note: Totals do not necessarily equal the sums of rounded components.

a. Revenues

The trust fund's primary source of income consists of amounts appropriated to it, under permanent authority, on the basis of taxes paid by workers, their employers, and individuals with self-employment income, in work covered by HI. Included in HI are workers covered under the OASDI program, those covered under the

Railroad Retirement program, and certain Federal, State, and local employees not otherwise covered under the OASDI program.

HI taxes are payable on a covered individual's total wages and self-employment income, without limit. For calendar years prior to 1994, taxes were computed on a person's annual earnings up to a specified maximum annual amount, called the maximum tax base. The maximum tax bases for 1966-1993 are presented in table II.B2. (Legislation enacted in 1993 removed the limit on taxable income beginning in calendar year 1994.)

The HI tax rates applicable in each of the calendar years 1966 and later are also shown in table II.B2. For 2005 and thereafter, the tax rates shown are the rates scheduled in present law.

Table II.B2.—Tax Rates and Maximum Tax Bases

Calendar years	Maximum tax base	Tax rate (Percentage of taxable earnings)	
		Employees and employers, each	Self-employed
Past experience:			
1966	$6,600	0.35	0.35
1967	6,600	0.50	0.50
1968-71	7,800	0.60	0.60
1972	9,000	0.60	0.60
1973	10,800	1.00	1.00
1974	13,200	0.90	0.90
1975	14,100	0.90	0.90
1976	15,300	0.90	0.90
1977	16,500	0.90	0.90
1978	17,700	1.00	1.00
1979	22,900	1.05	1.05
1980	25,900	1.05	1.05
1981	29,700	1.30	1.30
1982	32,400	1.30	1.30
1983	35,700	1.30	1.30
1984	37,800	1.30	2.60
1985	39,600	1.35	2.70
1986	42,000	1.45	2.90
1987	43,800	1.45	2.90
1988	45,000	1.45	2.90
1989	48,000	1.45	2.90
1990	51,300	1.45	2.90
1991	125,000	1.45	2.90
1992	130,200	1.45	2.90
1993	135,000	1.45	2.90
1994-2004	no limit	1.45	2.90
Scheduled in present law:			
2005 & later	no limit	1.45	2.90

Total HI payroll tax income in fiscal year 2003 amounted to $149,839 million—a decrease of 1.1 percent over the amount of $151,574 million for the preceding 12-month period. This reduction in

tax income resulted from several large, quarterly adjustments for overestimation of tax appropriations in prior periods.

Up to 85 percent of an individual's or couple's OASDI benefits may be subject to Federal income taxation if their income exceeds certain thresholds. The income tax revenue attributable to the first 50 percent of OASDI benefits is allocated to the OASI and DI trust funds. The revenue associated with the amount between 50 and 85 percent of benefits is allocated to the HI trust fund. Income from the taxation of OASDI benefits amounted to $8,318 million in fiscal year 2003.

Another substantial source of trust fund income is interest credited from investments in government securities held by the fund. In fiscal year 2003, $14,758 million in interest was credited to the fund. The trust fund's investment procedures are described later in this section.

Section 1818 of the Social Security Act provides that certain persons not otherwise eligible for HI protection may obtain coverage by enrolling in HI and paying a monthly premium. Premiums collected from such voluntary participants in fiscal year 2003 amounted to about $1,598 million.

The Railroad Retirement Act provides for a system of coordination and financial interchange between the Railroad Retirement program and the HI trust fund. This financial interchange requires a transfer that would place the HI trust fund in the same position in which it would have been if railroad employment had always been covered under the Social Security Act. In accordance with these provisions, a transfer of $396 million in principal and about $15 million in interest from the Railroad Retirement program's Social Security Equivalent Benefit Account to the HI trust fund balanced the two systems as of September 30, 2002. This amount, together with interest to the date of transfer totaling about $15 million, was transferred to the trust fund in June 2003.

Two sections of the statute authorize HI benefits for certain uninsured persons aged 65 and over. Entitlement to HI benefits was provided to almost all persons aged 65 and over, or near that age, when the HI trust fund first began operations. Legislation in 1982 added similar transitional entitlement for those Federal employees who would retire before having had a chance to earn sufficient quarters of Medicare-qualified Federal employment. The costs of such coverage, including administrative expenses, are reimbursed from the general fund of the Treasury. In fiscal year 2003, such

reimbursement amounted to $393 million: $392 million for estimated benefit payments and $1 million for administrative expenses. The $392 million for benefit payments consisted of $224 million for non-Federal uninsured and $168 million for Federal uninsured beneficiaries.

The Health Insurance Portability and Accountability Act of 1996 established a health care fraud and abuse control account within the HI trust fund. Monies derived from the fraud and abuse control program are transferred from the general fund of the Treasury to the HI trust fund. During fiscal year 2003, the trust fund was credited with about $357 million in receipts from this program.

b. Expenditures

Expenditures for HI benefit payments and administrative expenses are paid out of the trust fund. All expenses incurred by the Department of Health and Human Services, the Social Security Administration, the Department of the Treasury (including the Internal Revenue Service), and the Department of Justice in administering HI are charged to the trust fund. Such administrative duties include payment of benefits, the collection of taxes, fraud and abuse control activities, and experiments and demonstration projects designed to determine various methods of increasing efficiency and economy in providing health care services, while maintaining the quality of such services, under HI and SMI.

In addition, Congress has authorized expenditures from the trust funds for construction, rental and lease, or purchase contracts of office buildings and related facilities for use in connection with the administration of HI. These costs are included in trust fund expenditures. The net worth of facilities and other fixed capital assets, however, is not carried in the statement of trust fund assets presented in this report, since the value of fixed capital assets does not represent funds available for benefit or administrative expenditures and is not, therefore, considered in assessing the actuarial status of the funds.

Of the $153,792 million in total HI expenditures, $151,250 million represented net benefits paid from the trust fund for health services.[16] Net benefit payments increased 3.9 percent in fiscal year 2003 over

[16]Net benefits equal the total gross amounts initially paid from the trust fund during the year, less recoveries of overpayments identified through fraud and abuse control activities.

the corresponding amount of $145,566 million paid during the preceding fiscal year. This increase reflected the impact of the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000. Additional information on HI benefits by type of service is available in section III.A.

The remaining $2,541 million of expenditures was for net HI administrative expenses, after adjustments to the preliminary allocation of administrative costs among the Social Security and Medicare trust funds and the general fund of the Treasury. This amount includes $999 million for the health care fraud and abuse control program.

c. Actual experience versus prior estimates

Table II.B3 compares the actual experience in fiscal year 2003 with the estimates presented in the 2002 and 2003 annual reports. A number of factors can contribute to differences between estimates and subsequent actual experience. In particular, actual values for key economic and other variables can differ from assumed levels, and legislative and regulatory changes may be adopted after a report's preparation. The comparison in table II.B3 indicates that actual HI tax income was substantially lower than estimated in both the 2002 and 2003 reports, primarily because actual wage growth was lower than prior estimates. Actual HI benefit payments in fiscal year 2003 were slightly lower than the amount projected in the 2003 report. The actual amount was higher than the amount projected in the 2002 report, primarily as a result of faster growth in inpatient hospital expenditures than had been estimated.

Table II.B3.—Comparison of Actual and Estimated Operations of the HI Trust Fund, Fiscal Year 2003

[Dollar amounts in millions]

		Comparison of actual experience with estimates for fiscal year 2003 published in-			
		2003 report		2002 report	
Item	Actual amount	Estimated amount[1]	Actual as percentage of estimate	Estimated amount[1]	Actual as percentage of estimate
Payroll taxes	$149,839	$154,295	97	$161,366	93
Benefit payments	151,250	151,888	100	148,655	102

[1]Under the intermediate assumptions.

d. Assets

The portion of the trust fund that is not required to meet current expenditures for benefits and administration is invested, on a daily basis, in interest-bearing obligations of the U.S. Government. The

Social Security Act authorizes the issuance of special public-debt obligations for purchase exclusively by the trust fund. The law requires that these special public-debt obligations bear interest, at a rate based on the average market yield (computed on the basis of market quotations as of the end of the calendar month immediately preceding the date of such issue), on all marketable interest-bearing obligations of the United States forming a part of the public debt that are not due or callable until after 4 years from the end of that month. Currently, all invested assets of the HI trust fund are in the form of such special-issue securities.[17]

Table II.B4 shows the total assets of the fund and their distribution at the end of fiscal years 2002 and 2003. The assets at the end of fiscal year 2003 totaled $251,127 million: $251,323 million in the form of U.S. Government obligations and an undisbursed balance of –$197 million.

[17]Investments may also be made in obligations guaranteed as to both principal and interest by the United States, including certain federally sponsored agency obligations.

Table II.B4.—Assets of the HI Trust Fund, by Type, at the End of Fiscal Years 2002 and 2003[1]

	September 30, 2002	September 30, 2003
Investments in public-debt obligations sold only to the trust funds (special issues):		
Certificates of indebtedness:		
4.375-percent, 2003	$3,385,147,000.00	——
4.500-percent, 2004	——	$2,948,302,000.00
Bonds:		
3.500-percent, 2005-2018	——	36,368,603,000.00
5.250-percent, 2004	2,186,730,000.00	——
5.250-percent, 2005-2017	41,570,297,000.00	41,570,297,000.00
5.625-percent, 2003	124,809,000.00	——
5.625-percent, 2004	2,360,416,000.00	1,939,905,000.00
5.625-percent, 2005-2016	39,107,393,000.00	39,107,393,000.00
5.875-percent, 2011-2012	8,754,457,000.00	8,754,457,000.00
6.000-percent, 2012-2014	20,598,023,000.00	20,598,023,000.00
6.250-percent, 2003	363,198,000.00	——
6.250-percent, 2004-2008	10,000,917,000.00	10,000,917,000.00
6.500-percent, 2003	2,009,145,000.00	——
6.500-percent, 2004-2015	41,862,168,000.00	41,862,168,000.00
6.875-percent, 2011	2,166,172,000.00	2,166,172,000.00
7.000-percent, 2011	3,368,466,000.00	3,368,466,000.00
7.250-percent, 2003	225,129,000.00	——
7.250-percent, 2004-2009	9,898,903,000.00	9,898,903,000.00
7.375-percent, 2003	867,961,000.00	——
7.375-percent, 2004-2007	10,788,812,000.00	10,788,812,000.00
8.125-percent, 2003	901,273,000.00	——
8.125-percent, 2004-2006	9,119,514,000.00	9,119,514,000.00
8.750-percent, 2003	2,185,751,000.00	——
8.750-percent, 2004-2005	12,831,390,000.00	12,831,390,000.00
9.250-percent, 2003	4,229,944,000.00	——
Total investments	$228,906,015,000.00	$251,323,322,000.00
Undisbursed balance[2]	199,386,945.73	-196,564,246.13
Total assets	$229,105,401,945.73	$251,126,757,753.87

[1]Certificates of indebtedness and bonds are carried at par value, which is the same as book value.
[2]Negative figures represent an extension of credit against securities to be redeemed within the following few days.

New securities at a total par value of $213,507 million were acquired during the fiscal year through the investment of revenue and the reinvestment of funds made available from the redemption of securities. The par value of securities redeemed during the fiscal year was $191,090 million. Thus, the net increase in the par value of the investments held by the fund during fiscal year 2003 amounted to $22,417 million.

The effective annual rate of interest earned by the assets of the HI trust fund during the 12 months ending on December 31, 2003 was 6.2 percent. Interest on special issues is paid semiannually on June 30 and December 31. The interest rate on public-debt obligations issued for purchase by the trust fund in June 2003 was 3.5 percent, payable semiannually.

2. 10-Year Actuarial Estimates (2004-2013)

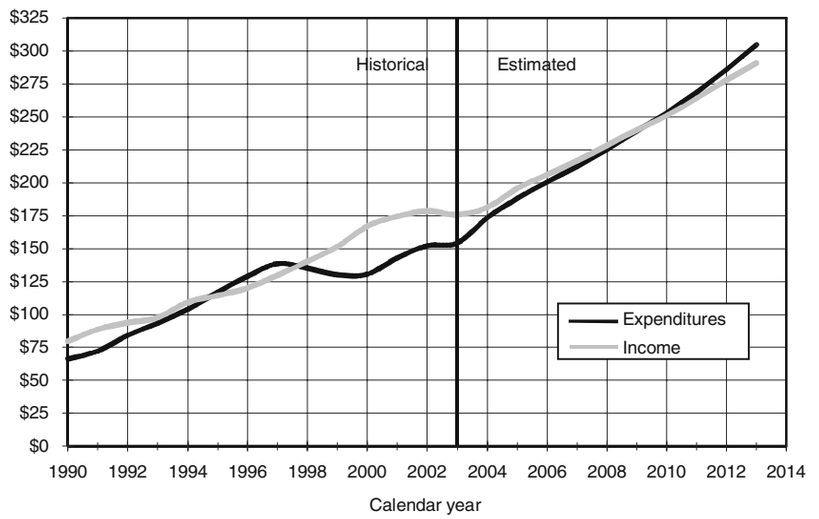
While the previous section addressed the transactions of the HI trust fund during the preceding fiscal year, this section presents estimates of the trust fund's operations and financial status for the next 10 years. The long-range actuarial status of the trust fund is discussed in the next section. In both this and the following section, no changes are assumed to occur in the present statutory provisions and regulations under which HI operates.

The estimates shown in this section provide detailed information concerning the short-range financial status of the trust fund. The estimated levels of future income and outgo, annual differences between income and outgo, and annual trust fund balances are explained and examined. Two particularly important indicators of solvency for the HI trust fund—the estimated year of exhaustion and the test of short-range financial adequacy—are also discussed.

To illustrate the sensitivity of future costs to different economic and demographic trends, estimates are shown under three alternative sets of assumptions, which are intended to portray a reasonable range of possible future trends. Due to the uncertainty inherent in such projections, however, the actual operations of the HI trust fund in the future could differ significantly from these estimates.

Figure II.B1 shows past and projected income and expenditures for the HI trust fund. Following the Balanced Budget Act of 1997, the fund experienced annual surpluses in the range of $21 billion to $36 billion through 2003. This difference is expected to shrink substantially to about $8 billion in 2004 and to continue narrowing thereafter until expenditures exceed income in 2010 and later. The worsening outlook for HI, compared to the projections in last year's Trustees Report, is attributable both to lower projected payroll tax revenues and higher projected benefit expenditures. The reasons underlying these estimate revisions are discussed later in this section.

Figure II.B1.—HI Expenditures and Income
[In billions]



The expected operations of the HI trust fund during calendar years 2004 to 2013, together with the past experience, are shown in table II.B5. The estimates shown in this table are based on the intermediate set of assumptions. The assumptions underlying the intermediate projections are presented in section III.A of this report.

Table II.B5.—Operations of the HI Trust Fund during Calendar Years 1970-2013

[In billions]

	Income								Expenditures			Trust fund	
Calendar year	Payroll taxes	Income from taxation of benefits	Railroad Retirement account transfers	Reimburse-ment for uninsured persons	Premiums from voluntary enrollees	Payments for military wage credits	Interest and other[1,2]	Total	Benefit payments[2,3]	Adminis-trative expenses[4]	Total	Net change	Fund at end of year
Historical data:													
1970	$4.9	—	$0.1	$0.9	—	$0.0	$0.2	$6.0	$5.1	$0.2	$5.3	$0.7	$3.2
1975	11.5	—	0.1	0.6	$0.0	0.0	0.7	13.0	11.3	0.3	11.6	1.4	10.5
1980	23.8	—	0.2	0.7	0.0	0.1	1.1	26.1	25.1	0.5	25.6	0.5	13.7
1985	47.6	—	0.4	0.8	0.0	-0.7[5]	3.4	51.4	47.6	0.8	48.4	4.8[6]	20.5
1990	72.0	—	0.4	0.4	0.1	-1.0[7]	8.5	80.4	66.2	0.8	67.0	13.4	98.9
1995	98.4	$3.9	0.4	0.5	1.0	0.1	10.8	115.0	116.4	1.2	117.6	-2.6	130.3
1996	110.6	4.1	0.4	0.4	1.2	-2.3[8]	10.2	124.6	128.6	1.3	129.9	-5.3	124.9
1997	114.7	3.6	0.4	0.5	1.3	0.1	9.6	130.2	137.8	1.7	139.5	-9.3	115.6
1998	124.3	5.1	0.4	0.0	1.3	0.1	9.3	140.5	134.0[9]	1.8	135.8	4.8	120.4
1999	132.3	6.6	0.4	0.7	1.4	0.1	10.1	151.6	128.8[9]	1.9	130.6	21.0	141.4
2000	144.4	8.8	0.5	0.5	1.4	0.0	11.7	167.2	128.5[9]	2.6	131.1	36.1	177.5
2001	152.0	7.5	0.5	0.5	1.4	-1.2[10]	14.0	174.6	141.2[9]	2.2	143.4	31.3	208.7
2002	152.7	8.3	0.4	0.4	1.6	0.0	15.1	178.6	149.9[9]	2.6	152.5	26.1	234.8
2003	149.2	8.3	0.4	0.4	1.6	0.0	15.8	175.8	152.1[9]	2.5	154.6	21.2	256.0
Intermediate estimates:													
2004	156.2	7.4	0.4	0.4	1.8	0.0	15.3	181.4	171.0	2.8	173.8	7.6	263.6
2005	168.8	9.0	0.4	0.3	2.0	0.0	15.3	195.8	185.4	2.9	188.3	7.5	271.1
2006	178.0	10.0	0.4	0.2	2.1	0.0	15.4	206.1	198.1	2.8	200.8	5.2	276.3
2007	187.4	11.0	0.4	0.2	2.2	0.0	15.4	216.6	209.9	2.8	212.6	4.0	280.3
2008	197.0	12.6	0.4	0.2	2.4	0.0	15.5	228.2	222.5	2.8	225.4	2.8	283.1
2009	207.0	14.0	0.4	0.2	2.5	0.0	15.6	239.9	236.3	2.9	239.2	0.7	283.8
2010	217.4	14.8	0.5	0.2	2.7	0.0	15.5	251.1	250.3	3.0	253.2	-2.1	281.7
2011	228.1	17.1	0.5	0.2	2.8	0.0	15.4	264.2	265.7	3.1	268.8	-4.6	277.1
2012	239.0	19.9	0.5	0.3	3.0	0.0	15.0	277.7	282.8	3.2	285.9	-8.2	268.8
2013	249.8	22.3	0.5	0.3	3.1	0.0	14.3	290.3	301.5	3.3	304.8	-14.5	254.4

[1]Other income includes recoveries of amounts reimbursed from the trust fund that are not obligations of the trust fund, receipts from the fraud and abuse control program, and a small amount of miscellaneous income. These amount to $0.6 billion for the 10-year period.
[2]Values after 2005 include additional premiums for Medicare Advantage (MA) plans that are deducted from beneficiaries' Social Security checks. These additional premiums are beneficiary obligations and occur when a beneficiary chooses an MA plan whose monthly plan payment exceeds the benchmark amount. Beneficiaries subject to such premiums may choose to either reimburse the plans directly or to have the premiums deducted from their Social Security checks. The premiums deducted from the Social Security checks are transferred to the HI and SMI trust funds and then transferred from the trust funds to the plans.
[3]Includes costs of Peer Review Organizations from 1983 through 2001 (beginning with the implementation of the prospective payment system on October 1, 1983), and costs of Quality Improvement Organizations beginning in 2002.
[4]Includes costs of experiments and demonstration projects. Beginning in 1997, includes fraud and abuse control expenses, as provided for by Public Law 104-191.
[5]Includes the lump-sum general revenue adjustment of -$0.8 billion, as provided for by section 151 of Public Law 98-21.
[6]Includes repayment of loan principal, from the OASI trust fund, of $1.8 billion.
[7]Includes the lump-sum general revenue adjustment of -$1.1 billion, as provided for by section 151 of Public Law 98-21.
[8]Includes the lump-sum general revenue adjustment of -$2.4 billion, as provided for by section 151 of Public Law 98-21.
[9]For 1998 to 2003, includes monies transferred to the SMI trust fund for home health agency costs, as provided for by Public Law 105-33.
[10]Includes the lump-sum general revenue adjustment of -$1.2 billion, as provided for by section 151 of Public Law 98-21.

Note: Totals do not necessarily equal the sums of rounded components.

The increases in estimated income shown in table II.B5 primarily reflect increases in payroll tax income to the trust fund. As noted previously, the main source of HI financing is the payroll tax on covered earnings paid by employees, employers, and self-employed workers. While the payroll tax rate is scheduled to remain constant, covered earnings are assumed to increase every year through 2013 under the intermediate assumptions. These increases in taxable earnings are due primarily to projected increases both in the number of HI workers covered and in the average earnings of these workers.

Over the next 10 years, most of the smaller sources of financing for the HI trust fund are projected to increase as well. More detailed descriptions of these sources of income can be found in section II.B1.

Interest earnings have been a significant source of income to the trust fund for many years, surpassed only by payroll taxes. As the trust fund levels off in the near future, with income roughly equal to expenditures, interest earnings would also remain about level.

Benefit expenditures are projected to increase each year from 2004 to 2013. For the entire short-range period and beyond, benefits are expected to increase at a faster rate than income.

Since future economic, demographic, and health care usage and cost experience may differ considerably from the intermediate assumptions on which the cost estimates shown in table II.B5 were based, projections have also been prepared on the basis of two different sets of assumptions, labeled "low cost" and "high cost." The three sets of assumptions were selected to illustrate the sensitivity of costs to different economic and demographic trends, and to provide an indication of the uncertainty associated with HI financial projections. The low cost and high cost alternatives provide for a fairly wide range of possible experience. While actual experience may be expected to fall within the range, no assurance can be made that this will be the case, particularly in light of the wide variations in experience that have occurred in the past. The assumptions used in preparing projections under the low cost and high cost alternatives, as well as under the intermediate assumptions, are discussed more fully in section III.A of this report.

The estimated operations of the HI trust fund during calendar years 2003 to 2013, under all three alternatives, are summarized in table II.B6. The trust fund ratio, defined as the ratio of assets at the beginning of the year to expenditures during the year, was 152 percent for 2003. Under the intermediate assumptions, the trust

fund ratio is projected to steadily decline to a level of 89 percent by 2013. Thereafter, the ratio would continue to decline beyond the 10-year short-term projection period, with the fund becoming exhausted in 2019 under the intermediate assumptions. In last year's report, this ratio reached its peak in 2012 at 192 percent. This fairly dramatic difference is due to lower tax income and higher expenditures than projected in last year's report, as noted previously.

Under the low cost alternative, exhaustion would occur in 2055, while under the high cost alternative, exhaustion would occur in 2012, within the 10-year period. Without corrective legislation, therefore, the assets of the HI trust fund would be exhausted within the next 8 to 15 years under the high cost and intermediate assumptions. The fact that exhaustion would occur under a fairly broad range of future economic conditions, and is expected to occur in the not-distant future, indicates the importance of addressing the HI trust fund's financial imbalance.

Table II.B6.—Estimated Operations of the HI Trust Fund during Calendar Years 2003-2013, under Alternative Sets of Assumptions

[Dollar amounts in billions]

Calendar year	Total income	Total expenditures	Net increase in fund	Fund at end of year	Ratio of assets to expenditures[1] (percent)
Intermediate:					
2003[2]	$175.8	$154.6	$21.2	$256.0	152
2004	181.4	173.8	7.6	263.6	147
2005	195.8	188.3	7.5	271.1	140
2006	206.1	200.8	5.2	276.3	135
2007	216.6	212.6	4.0	280.3	130
2008	228.2	225.4	2.8	283.1	124
2009	239.9	239.2	0.7	283.8	118
2010	251.1	253.2	-2.1	281.7	112
2011	264.2	268.8	-4.6	277.1	105
2012	277.7	285.9	-8.2	268.8	97
2013	290.3	304.8	-14.5	254.4	88
Low cost:					
2003[2]	$175.8	$154.6	$21.2	$256.0	152
2004	181.8	170.6	11.3	267.3	150
2005	197.0	181.5	15.5	282.8	147
2006	207.3	190.5	16.8	299.6	148
2007	218.4	198.2	20.3	319.8	151
2008	230.3	205.9	24.4	344.3	155
2009	242.6	214.1	28.6	372.8	161
2010	254.8	222.0	32.7	405.6	168
2011	269.0	230.7	38.4	443.9	176
2012	283.5	239.9	43.7	487.6	185
2013	297.2	249.6	47.5	535.1	195
High cost:					
2003[2]	$175.8	$154.6	$21.2	$256.0	152
2004	179.4	177.2	2.1	258.2	144
2005	192.9	196.4	-3.5	254.7	131
2006	205.0	213.7	-8.7	246.0	119
2007	212.4	228.9	-16.5	229.5	107
2008	223.3	249.0	-25.6	203.9	92
2009	240.8	276.0	-35.1	168.7	74
2010	254.6	302.9	-48.3	120.5	56
2011	267.0	329.5	-62.6	57.9	37
2012	279.6	358.9	-79.3	-21.4[3]	16
2013	292.2	392.1	-99.9	-121.3[3]	-5

[1]Ratio of assets in the fund at the beginning of the year to expenditures during the year.
[2]Figures for 2003 represent actual experience.
[3]Estimates for 2012 and later are hypothetical, since the HI trust fund would be exhausted in those years.

Note: Totals do not necessarily equal the sums of rounded components.

The Board of Trustees has established an explicit test of short-range financial adequacy. The requirements of this test are as follows: (1) If the HI trust fund ratio is at least 100 percent at the beginning of the projection period, then it must be projected to remain at or above 100 percent throughout the 10-year projection period; (2) alternatively, if the fund ratio is initially less than 100 percent, it must be projected to reach a level of at least 100 percent within 5 years (and the trust fund not be depleted at any time during this period), and then remain at or above 100 percent throughout the rest

of the 10-year period. This test is applied to trust fund projections made under the intermediate assumptions.

Failure of the trust fund to meet this test is an indication that HI solvency over the next 10 years is in question and that action is needed to improve the short-range financial adequacy of the trust fund. As can be seen from table II.B6, the HI trust fund does not meet this short-range test. The trust fund ratio, which was above the 100-percent level at the beginning of 2003, is projected to decrease through 2013, becoming less than 100 percent by 2012. Accordingly, the financing for HI is not considered adequate in the short-range projection period (2004-2013).

The ratios of assets in the HI trust fund at the beginning of each calendar year to total expenditures during that year are shown in table II.B7 for all historical years.

Table II.B7.—Ratio of Assets at the Beginning of the Year to Expenditures during the Year for the HI Trust Fund

Calendar year	Ratio
1967	28%
1968	25
1969	43
1970	47
1971	54
1972	47
1973	40
1974	69
1975	79
1976	77
1977	66
1978	57
1979	54
1980	52
1981	45
1982	52
1983	20
1984	29
1985	32
1986	41
1987	79
1988	101
1989	115
1990	128
1991	136
1992	136
1993	131
1994	122
1995	113
1996	100
1997	90
1998	85
1999	92
2000	108
2001	124
2002	137
2003	152

Actuarial Analysis

Figure II.B2 shows the historical trust fund ratios and the projected ratios under the three sets of assumptions. Figure II.B3 shows end-of-year trust fund balances in dollars for historical years and for projected years under the three sets of assumptions. On both figures, the labels "I," "II," and "III" indicate projections under the low cost, intermediate, and high cost alternatives, respectively. Figure II.B2 indicates the declining growth of assets (as a percentage of expenditures) in the relatively near future, except under conditions of exceptionally robust economic growth and modest health care cost increases, as assumed in the low cost alternative.

Figure II.B2.—HI Trust Fund Balance at Beginning of Year as a Percentage of Annual Expenditures

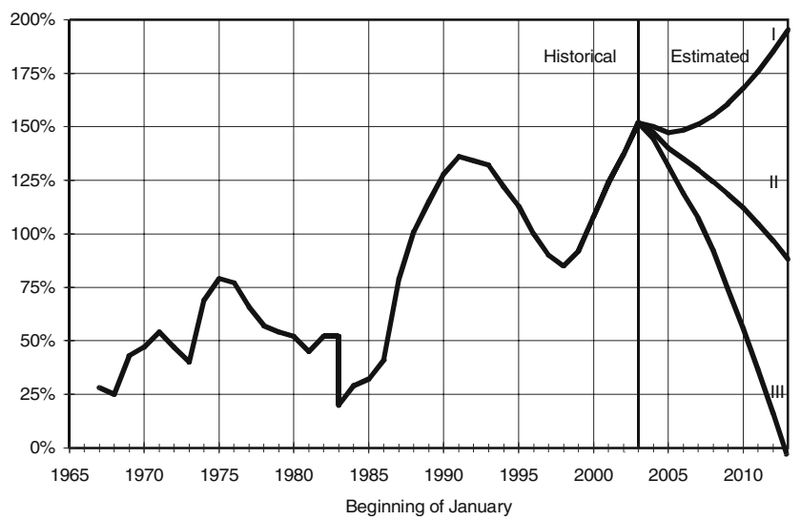
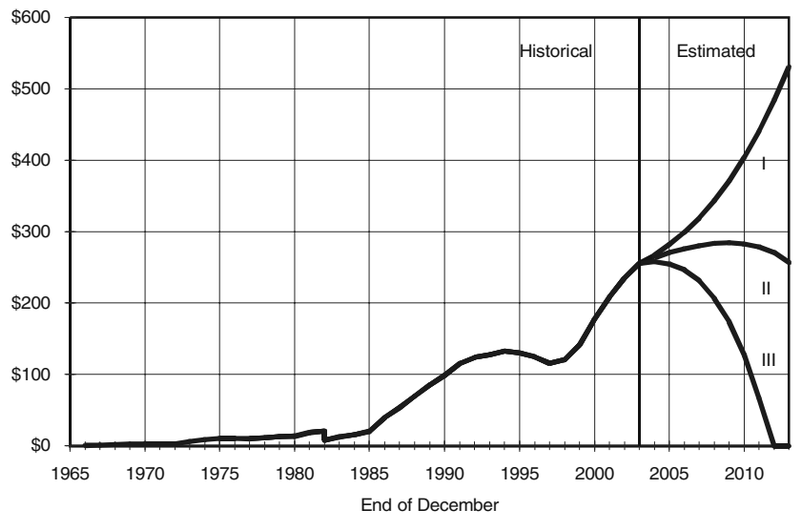


Figure II.B3.—HI Trust Fund Balance at End of Year
[In billions]



The Trustees have recommended that HI trust fund assets be maintained at a level of at least 100 percent of annual expenditures. Such a level is estimated to provide a cushion of roughly 5 years or more in the event that income falls short of expenditures, thereby allowing time for policy makers to devise and implement legislative corrections. Thus, while the short-range test is stringent, it is intended to ensure that health care benefits continue to be available without interruption to the millions of aged and disabled Americans who rely on such coverage.

3. 75-Year Actuarial Estimates (2004-2078)

Section II.B2 presented HI expected operations over the next 10 years. In this section, the long-range actuarial status of the trust fund is examined under the three alternative sets of assumptions. The assumptions used in preparing projections are summarized in section III.A of this report. Since the vast majority of total HI costs are related to insured beneficiaries, and since general revenue appropriations and premium payments are expected to support the uninsured segments, the remainder of this section will focus on the financing for insured beneficiaries only.

The long-range actuarial status of the HI trust fund is measured by comparing, on a year-by-year basis, the income (from payroll taxes and from taxation of OASDI benefits) with the corresponding

incurred costs, expressed as percentages of taxable payroll.[18] These percentages are referred to as "income rates" and "cost rates," respectively.

The historical and projected HI costs under the intermediate assumptions, expressed as percentages of taxable payroll, and the income rates under current law for selected years over the 75-year period, are shown in table II.B8. The ratio of expenditures to taxable payroll has generally increased over time, rising from 0.94 percent in 1967 to 3.40 percent in 1996, reflecting both the higher rate of increase in medical care costs than in average earnings subject to HI taxes, and the more rapid increase in the number of HI beneficiaries than in the number of covered workers. Cost rates declined significantly between 1996 and 2000 to 2.62 percent in 2000, due to favorable economic performance, the impact of the Balanced Budget Act of 1997, and efforts to curb fraud and abuse in the Medicare program. The cost rate increased to 2.80 in 2001, 2.95 in 2002, and 3.01 in 2003 as a result of the Benefits Improvement and Protection Act of 2000 and the 2001 economic recession.

[18]Taxable payroll is the total amount of wages, salaries, tips, self-employment income, and other earnings subject to the HI payroll tax.

Table II.B8.—HI Cost and Income Rates[1]

Calendar year	Cost rates[2]	Income rates	Difference[3]
Historical data:			
1967	0.94%	1.00%	+0.06%
1970	1.20	1.20	0.00
1975	1.69	1.80	+0.11
1980	2.19	2.10	-0.09
1985	2.62	2.70	+0.08
1990	2.69	2.90	+0.21
1995	3.25	3.01	-0.24
1996	3.40	3.01	-0.39
1997	3.35	3.02	-0.33
1998	3.00	3.04	+0.04
1999	2.78	3.03	+0.25
2000	2.62	3.05	+0.43
2001	2.80	3.05	+0.25
2002	2.95	3.04	+0.09
2003	3.01	3.06	+0.05
Intermediate estimates:			
2004	3.12	3.06	-0.05
2005	3.15	3.07	-0.08
2006	3.17	3.08	-0.09
2007	3.22	3.09	-0.13
2008	3.25	3.11	-0.14
2009	3.29	3.10	-0.19
2010	3.32	3.12	-0.21
2011	3.36	3.15	-0.22
2012	3.42	3.16	-0.26
2013	3.49	3.18	-0.31
2015	3.63	3.20	-0.43
2020	4.13	3.25	-0.87
2025	4.81	3.30	-1.51
2030	5.61	3.34	-2.27
2035	6.43	3.37	-3.07
2040	7.18	3.37	-3.80
2045	7.83	3.37	-4.46
2050	8.41	3.38	-5.03
2055	9.00	3.38	-5.62
2060	9.71	3.39	-6.32
2065	10.55	3.40	-7.15
2070	11.47	3.41	-8.07
2075	12.42	3.41	-9.01
2080	13.05	3.42	-9.63

[1]Under the intermediate assumptions.
[2]Estimated costs attributable to insured beneficiaries only, on an incurred basis. Benefits and administrative costs for noninsured persons are expected to be financed through general revenue transfers and premium payments, rather than through payroll taxes. Gratuitous credits for military service after 1956 are included in taxable payroll.
[3]Difference between the income rates and cost rates. Negative values represent deficits.

After 2003, the income rates under current law are projected to be insufficient, by a growing margin, to support the projected costs. By the end of the long-range projection period, HI tax income is estimated to cover only about one-fourth of the cost. As a result, the trust fund is seriously out of financial balance in the long range, and substantial reform will be required.

Figure II.B4 shows the year-by-year costs as a percentage of taxable payroll for each of the three sets of assumptions. The labels “I,” “II,”

and "III" indicate projections under the low cost, intermediate, and high cost alternatives, respectively. The income rates are also shown, but only for the intermediate assumptions in order to simplify the graphical presentation—and because the variation in the income rates by alternative is very small (by 2078, the annual income rates under the low cost and high cost alternatives differ by less than 0.4 percent of taxable payroll).

Figure II.B4.—Estimated HI Cost and Income Rates as a Percentage of Taxable Payroll

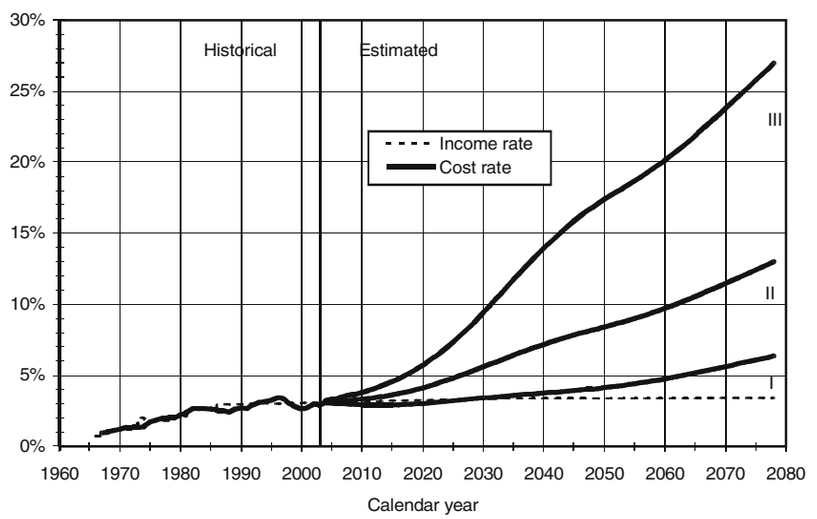


Figure II.B4 further reinforces the financial imbalance projected under the intermediate assumptions. After 2003, cost rates are projected to exceed income rates under current law by a steadily and rapidly growing margin. By the end of the 75-year period, this differential would be more than 9 percent of taxable payroll and would continue to worsen thereafter. Under the more favorable economic and demographic conditions assumed in the low cost assumptions, HI costs would exceed scheduled income after 2030, with a more modest but steadily growing deficit thereafter. The high cost projections illustrate the very dramatic financial imbalance that could occur if future economic conditions resemble those of the 1973-95 period, if HI expenditure growth accelerates toward pre-1997 levels, and if fertility rates decline to the levels currently experienced in key European countries such as England and France.

Costs beyond the initial 25-year projection period for the intermediate estimate are based upon the assumption that average HI

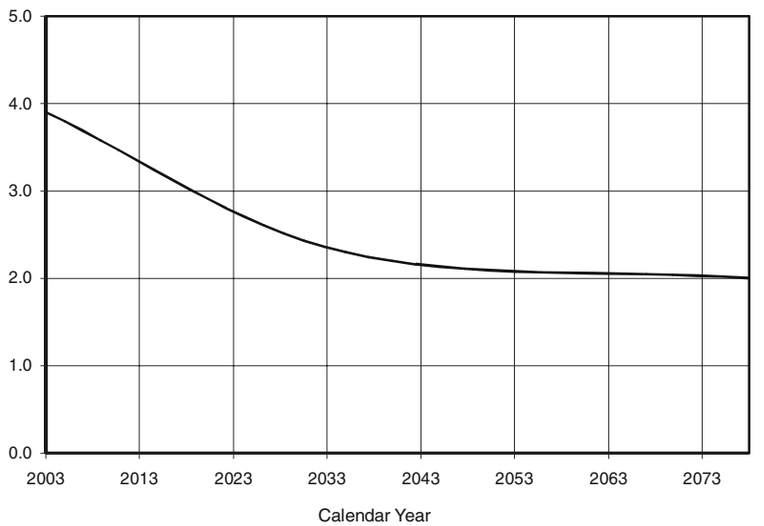
expenditures per beneficiary will increase at a rate of 1 percentage point greater than the Gross Domestic Product (GDP) per capita. Therefore, changes in the next 50 years of the projection period reflect both the impact of the changing demographic composition of the population and average benefits that increase more rapidly than average wages. Beyond the initial 25-year projection period, the low cost and high cost alternatives assume that HI cost increases, relative to taxable payroll increases, are initially 2 percent less rapid and 2 percent more rapid, respectively, than the results under the intermediate assumptions. The initial 2-percent differentials are assumed to gradually decrease until the year 2053, when HI cost increases (relative to taxable payroll) are assumed to be the same as under the intermediate assumptions.

The cost rates and income rates are shown over a 75-year valuation period in order to fully present the future economic and demographic developments that may reasonably be expected to occur, such as the impact of the large shift in the demographic composition of the population that will take place beginning in the next decade. As figure II.B4 indicates, estimated HI expenditures, expressed as percentages of taxable payroll, increase rapidly beginning around 2010. This rapid increase in costs occurs in part because the relatively large number of persons born during the period between the end of World War II and the mid-1960s (known as the baby boom) will reach eligibility age and begin to receive benefits, while the relatively smaller number of persons born during later years will comprise the labor force. During the last 25 years of the projection period, the demographic impacts moderate somewhat.[19]

For the most part, current benefits are paid for by current workers. Consequently, the baby boom generation will be financed by the relatively small number of persons born after the baby boom. Figure II.B5 shows the projected ratio of workers per HI beneficiary from 2003 to 2078.

[19]HI costs as a percentage of taxable payroll are projected to continue to increase due to demographic changes, reflecting assumed further improvements in life expectancy and assumed birth rates that are at roughly the same level as those experienced during the last 2 decades.

Figure II.B5.—Workers per HI Beneficiary
[Based on intermediate assumptions]



As figure II.B5 indicates, while every beneficiary in 2003 had nearly 4 workers to pay for his or her HI benefit, in 2030 there would be only about 2.4 workers. This ratio would then continue to decline until there are only 2.0 workers per beneficiary by 2078.

While year-by-year comparisons of revenues and costs are necessary to measure the adequacy of HI financing, the financial status of the trust fund is often summarized, over a specific valuation period, by a single measure known as the actuarial balance. The actuarial balance of the HI trust fund is defined as the difference between the summarized income rate for the valuation period and the summarized cost rate for the same period.

The summarized income rates, cost rates, and actuarial balance are based upon the present values of future income, costs, and taxable payroll. The present values are calculated, as of the beginning of the valuation period, by discounting the future annual amounts of income and outgo at the assumed rates of interest credited to the HI trust fund. The summarized income and cost rates over the projection period are then obtained by dividing the present value of income and cost, respectively, by the present value of taxable payroll. The difference between the summarized income rate and cost rate over the long-range projection period, after an adjustment to take into account the fund balance at the valuation date and a target trust

fund balance at the end of the valuation period, is the actuarial balance.

In keeping with a decision by the Board of Trustees that it is advisable to maintain a balance in the trust fund equal to a minimum of 1 year's expenditures, the target trust fund balance is equal to the following year's estimated costs at the end of the 75-year projection period. It should be noted that projecting an end-of-period target trust fund balance does not necessarily insure that the trust fund will maintain such a balance on a year-by-year basis.

The actuarial balance can be interpreted as the immediate and permanent percentage that must be added to the current-law income rates and/or subtracted from the current-law cost rates throughout the entire valuation period in order for the financing to support HI costs and provide for the targeted trust fund balance at the end of the projection period. The income rate increase according to this method is 3.12 percent of taxable payroll. However, if no changes were made until the year the trust fund would be exhausted, then the required increase would be 4.29 percent of taxable payroll under the intermediate assumptions. If changes were instead made year by year, as needed to balance each year's costs and tax revenues, then the changes would be minimal through about 2010, but would grow rapidly thereafter to more than 9 percent of taxable payroll by the end of the projection period.

The actuarial balances under all three alternative sets of assumptions, for the next 25, 50, and 75 years, as well as for each 25-year subperiod, are shown in table II.B9. The summarized income rate for the entire 75-year period under the intermediate assumptions is 3.39 percent of taxable payroll. The summarized HI cost under the intermediate assumptions, for the entire 75-year period, is 6.51 percent. As a result, the HI trust fund fails to meet the Trustees' long-range test of close actuarial balance by a wide margin. (Section IV.G contains the definition of Test of Long-Range Close Actuarial Balance.)

Table II.B9.—HI Actuarial Balances, under Three Sets of Assumptions

	Intermediate assumptions	Alternative	
		Low Cost	High Cost
Valuation periods:[1]			
25 years, 2004-2028:			
Summarized income rate	3.40%	3.38%	3.43%
Summarized cost rate	4.03	3.13	5.37
Actuarial balance	-0.63	0.25	-1.94
50 years, 2004-2053:			
Summarized income rate	3.39	3.35	3.44
Summarized cost rate	5.32	3.39	8.96
Actuarial balance	-1.94	-0.04	-5.53
75 years, 2004-2078:			
Summarized income rate	3.39	3.33	3.46
Summarized cost rate	6.51	3.81	11.86
Actuarial balance	-3.12	-0.47	-8.40
25-year subperiods:[2]			
2004-2028:			
Summarized income rate	3.20	3.18	3.22
Summarized cost rate	3.85	3.02	5.07
Actuarial balance	-0.65	0.16	-1.85
2029-2053:			
Summarized income rate	3.37	3.30	3.45
Summarized cost rate	7.12	3.77	13.74
Actuarial balance	-3.76	-0.47	-10.29
2054-2078:			
Summarized income rate	3.40	3.29	3.56
Summarized cost rate	10.67	5.23	22.09
Actuarial balance	-7.27	-1.95	-18.54

[1]Income rates include beginning trust fund balances, and cost rates include the cost of attaining a trust fund balance at the end of the period equal to 100 percent of the following year's estimated expenditures.
[2]Income rates do not include beginning trust fund balances, and cost rates do not include the cost of attaining a non-zero trust fund balance at the end of the period.

Notes: Totals do not necessarily equal the sums of rounded components.

The divergence in outcomes among the three alternatives is reflected both in the estimated operations of the trust fund on a cash basis (as discussed in section II.B2) and in the 75-year summarized costs. The variations in the underlying assumptions can be characterized as (1) moderate in terms of magnitude of the differences on a year-by-year basis, and (2) persistent over the duration of the projection period. Under the low cost alternative, the summarized cost rate for the 75-year valuation period is 3.81 percent of taxable payroll, and the summarized income rate is 3.33 percent of taxable payroll, meaning HI income rates provided in current law would not be adequate on average under the low cost alternative.[20] Under the

[20]As seen in figure II.B4, however, this balance would reflect a long period of slight surpluses followed by a period of growing deficits. Under such a scenario, trust fund assets would initially build up to large levels but would then be drawn down rapidly and be exhausted before the end of the projection period.

high cost alternative, the summarized cost rate for the 75-year projection period is 11.86 percent of taxable payroll, more than three times the summarized income rate of 3.46 percent of taxable payroll.

Past experience has indicated that economic and demographic conditions that are as financially adverse as those assumed under the high cost alternative can, in fact, occur. None of the alternative projections should be viewed as unlikely or unrealistic. The wide range of results under the three alternatives is indicative of the uncertainty of HI's future cost and its sensitivity to future economic and demographic conditions. Accordingly, it is important that an adequate balance be maintained in the HI trust fund, as a reserve for contingencies, and that financial imbalances be addressed promptly through corrective legislation.

Table II.B10 shows the long-range actuarial balance under the intermediate projections with its component parts—the present values of tax income, expenditures and asset requirement of the HI program over the next 75 years. The estimates are for the "open-group" population—all persons who will participate during the period as either taxpayers or beneficiaries, or both—and consist of payments from, and on behalf of, employees now in the workforce, as well as those who will enter the workforce over the next 75 years. The estimates also include expenditures attributable to these current and future workers, in addition to current beneficiaries.

Table II.B10.—Components of 75-Year HI Actuarial Balance under Intermediate Assumptions (2004-2078)

Present value as of January 1, 2004 (in billions):	
a. Payroll tax income	$7,898
b. Taxation of benefits income	1,069
c. Fraud and abuse control receipts	9
d. Total income (a + b + c)	8,976
e. Expenditures	17,468
f. Expenditures minus income (e – d)	8,492
g. Trust fund assets at start of period	256
h. Open-group unfunded obligation (f – g)	8,236
i. Ending target trust fund[1]	267
j. Present value of actuarial balance (d – e + g – i)	-8,503
k. Taxable payroll	272,352
Percent of taxable payroll:	
Actuarial balance (j ÷ k)	-3.12%

[1]The calculation of the actuarial balance includes the cost of accumulating a target trust fund balance equal to 100 percent of annual expenditures by the end of the period.

Note: Totals do not necessarily equal the sums of rounded components.

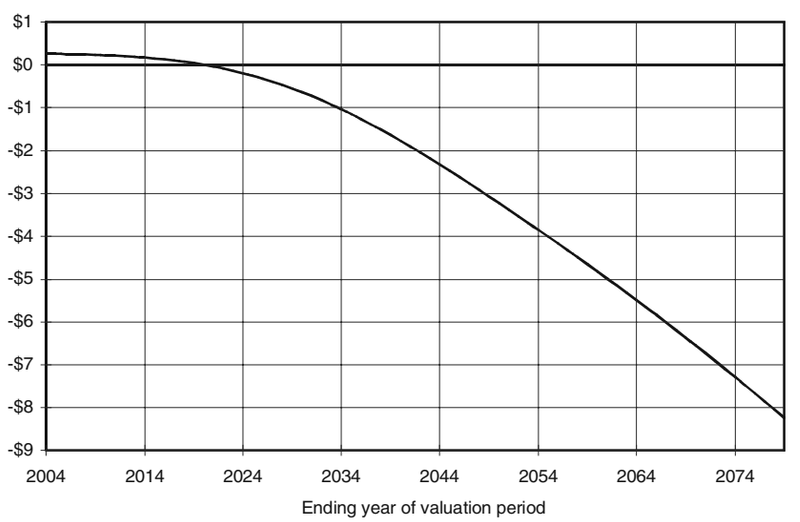
The present value of future expenditures less future tax income, increased by the amount of HI trust fund assets on hand at the

beginning of the projection, amounts to $8.2 trillion. This value is referred to as the 75-year "unfunded obligation" for the HI trust fund. The unfunded obligation (adjusted for the ending target trust fund) can be expressed as a percentage of the present value of future taxable payroll to calculate the traditional actuarial balance of the HI program. Under the intermediate assumptions, the present value of the actuarial deficit is $8.5 trillion. Dividing by the present value of future taxable payroll (estimated to be $272 trillion) results in the actuarial balance of –3.12 percent shown in table II.B10.

Figure II.B6 shows the present values, as of January 1, 2004, of cumulative HI taxes less expenditures (plus the 2004 trust fund) through each of the next 75 years. These values are estimated under present-law legislated expenditures and tax rates.

Figure II.B6.—Present Value, as of 2003, of Cumulative HI Taxes Less Expenditures through Year Shown, Evaluated under Present-Law Tax Rates and Legislated Expenditures

[In trillions, based on intermediate assumptions]



The cumulative annual balance of the trust fund is highest at the beginning of 2004, reflecting the beginning trust fund assets of nearly $0.3 trillion. The cumulative present value then turns downward over the projection period reflecting the anticipated shortfall of tax revenues, relative to expenditures, in 2004 and later. The trust fund is projected to become exhausted in 2019, at which time cumulative expenditures would have exceeded cumulative tax revenues by enough to equal the initial fund assets accumulated with interest.

The continuing decline in the line thereafter further illustrates the unsustainable difference between the HI expenditures promised under current law and the financing currently scheduled to support these expenditures. As noted previously, over the full 75-year period, the fund has a projected present value unfunded obligation of $8.2 trillion. These unfunded obligations indicate that if $8.2 trillion were added to the trust fund at the beginning of 2004, the program could meet the projected cost of current law expenditures over the next 75 years. More realistically, additional annual revenues and/or reductions in expenditures, with a present value totaling $8.2 trillion, would be required to reach financial balance.

The estimated unfunded obligation of $8.2 trillion and the closely associated present value of the actuarial deficit ($8.5 trillion) are useful indicators of the very sizable responsibility facing the American public. In other words, increases in revenues and/or reductions in benefits—equivalent to a lump-sum amount today of roughly $8 trillion—would be required to bring the HI trust fund into long-range financial balance. At the same time, long-range measures expressed in dollar amounts, even when expressed as present values, can be difficult to interpret. For this reason, the Board of Trustees has customarily emphasized relative measures such as the income rate and cost rate comparisons shown earlier in this section.

Consistent with the practice of previous reports, this report focuses on the 75-year period from 2004 to 2078 for the evaluation of the long-run financial status of the HI program on an open-group basis (i.e., including past, current, and future participants). Table II.B11 shows that the present value of open-group unfunded obligations for the program over that period is $8.2 trillion, which is equivalent to 3.0 percent of taxable payroll or 1.4 percent of GDP. Some experts, however, have expressed concern that overemphasis on summary measures (such as the actuarial balance and open-group unfunded obligations) can obscure the underlying nature of the long-range financial imbalance. If legislative solutions were designed only to eliminate the actuarial deficit, on average, over the 75-year period, a substantial financial imbalance could still remain at the end of the period, and the long-range sustainability of the program could still be in doubt.

Reflecting these same concerns, the Medicare Trustees Report has traditionally focused on the projected year-by-year pattern of HI income versus expenditures and placed less emphasis on summary measures. As noted previously in this section, the scheduled tax

revenues for HI represent only about one-fourth of projected expenditures at the end of the 75-year projection period, and the projected financial imbalance worsens throughout this period.

Concern has also been expressed that limiting the projections to 75 years understates the magnitude of the long-range unfunded obligations for HI, because the full amount of taxes paid by the next two or three generations of workers are reflected, but not the full amount of their benefits. One approach to addressing the limitations of 75-year summary measures is to extend the projection horizon indefinitely, so that the projected large deficits after the first 75 years are reflected in the overall results.[21] Accordingly, table II.B11 presents estimates of HI unfunded obligations that extend to the infinite horizon. The extension assumes that the current law HI program and the demographic and economic trends used for the 75-year projection continue indefinitely except that average HI expenditures per beneficiary will increase at the same rate as the GDP per capita beginning in 2079. Extending the calculations beyond 2078 adds $13.5 trillion to estimated unfunded obligations, making the total open-group unfunded obligation $21.8 trillion. This amount represents 5.3 percent of the present value of future HI taxable payroll over the infinite horizon, or 2.4 percent of GDP.

Table II.B11.—Unfunded HI Obligations from Program Inception through the Infinite Horizon

[Present values as of January 1, 2004; dollar amounts in trillions]

	Present value	As a percentage of: HI taxable payroll	GDP
Unfunded obligations through the infinite horizon[1]	$21.8	5.3%	2.4%
Unfunded obligations from program inception through 2078[1]	8.2	3.0%	1.4%

[1]Present value of future expenditures less income, reduced by the amount of trust fund assets at the beginning of the period.

Notes: 1. The present values of future HI taxable payroll for 2004-2078 and 2004 through the infinite horizon are $272.4 trillion and $413.0 trillion, respectively.
2. The present values of GDP for 2004-2078 and 2004 through the infinite horizon are $584.9 trillion and $911.9 trillion, respectively.
3. Totals do not necessarily equal the sums of rounded components.

[21]The calculation of present values, in effect, applies successively less weight to future amounts over time, through the process of interest discounting. For example, the weights associated with the 25th, 75th, and 200th years of the projection would be about 26 percent, 2 percent, and 0.000015 percent, respectively, of the weight for the first year. In this way, a finite summary measure can be calculated for an infinite projection period.

The projected HI unfunded obligation over the infinite horizon can be separated into the portions associated with current participants versus future participants. The first line of table II.B12 shows the present value of future expenditures less future taxes for all current participants, including both beneficiaries and covered workers. Subtracting the current value of the HI trust fund (the accumulated value of past HI taxes less outlays) gives a "closed group" unfunded obligation of $14.0 trillion. The remaining $7.8 trillion of the total unfunded obligation is the projected difference between taxes and expenditures for future participants.

The year-by-year HI deficits described previously in this section have shown that HI taxes will not be adequate to finance the program on a "pay-as-you-go" basis (where payroll taxes from today's workers are used to provide benefits to today's beneficiaries).[22] The unfunded obligations shown in table II.B12 further indicate that workers' HI taxes are not adequate to cover their own future costs when they become eligible for HI benefits—and that this situation has occurred for workers in the past and will continue to be true for future workers under current law. In practice, the projected HI deficits could be addressed by raising additional revenue or reducing benefits (or some combination of these actions). The impact of such changes on the unfunded obligation amounts for current versus future participants would depend on the specific policies selected.

Table II.B12.—Unfunded HI Obligations for Current and Future Program Participants through the Infinite Horizon

[Present values as of January 1, 2004; dollar amounts in trillions]

	Present value	As a percentage of: HI taxable payroll	As a percentage of: GDP
Future expenditures less income for current participants	$14.2	3.4%	1.6%
Less current trust fund (income minus expenditures to date for past and current participants)	0.3	0.1%	0.0%
Equals unfunded obligations for past and current participants[1]	14.0	3.4%	1.5%
Plus expenditures less income for future participants for the infinite horizon	7.8	1.9%	0.9%
Equals unfunded obligations for all participants for the infinite future	21.8	5.3%	2.4%

[1]This concept is also referred to as the closed-group unfunded obligation.

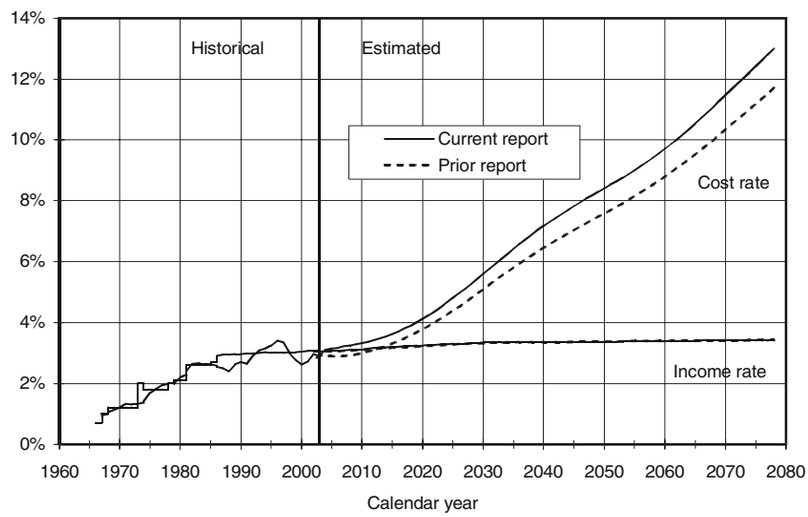
Notes: 1. The estimated present value of future HI taxable payroll for 2004 through the infinite horizon is $413.0 trillion.
2. The estimated present value of GDP for 2004 through the infinite horizon is $911.9 trillion.
3. Totals do not necessarily equal the sums of rounded components.

[22]As noted previously, small amounts of income are also received in the form of income taxes on OASDI benefits, interest, and general revenue reimbursements for certain uninsured beneficiaries.

Actuarial Analysis

The remainder of this section describes the changes in long-range HI actuarial projections made since the prior year's annual report to Congress was released. Figure II.B7 compares the year-by-year HI cost and income rates for the current annual report with the corresponding projections from the 2003 report.

Figure II.B7.—Comparison of HI Cost and Income Rate Projections: Current versus Prior Year's Reports



As figure II.B7 indicates, the intermediate HI cost rate projections in this year's report are somewhat higher than in the 2003 report. The differential starts at 0.10 percent of payroll in 2003 and increases to 1.28 percent by the end of the projection period. In contrast, the projected income rates are not perceptibly different in the chart, although projected revenues from the income taxation of OASDI benefits are very slightly higher in the new report. The detailed reasons for the changes in projected cost rates and income rates are given below.

As mentioned earlier, the 75-year HI actuarial balance, under the intermediate assumptions, is estimated to be –3.12 percent of taxable payroll. The actuarial balance under the intermediate assumptions as reported in the 2003 annual report was –2.40 percent. The major reasons for the change in the 75-year actuarial balance are summarized in table II.B13. In more detail, these changes consist of the following:

(1) Change in valuation period: Changing the valuation period from 2003-2077 to 2004-2078 adds a large deficit year to the calculation of the actuarial balance. The effect on the actuarial balance is –0.09 percent of taxable payroll.

(2) Updating the projection base: The actual cost as a percentage of payroll for 2003 was higher than estimated in last year's report. The increase was attributable to incurred HI expenditures that were about 1 percent higher than estimated and HI taxable payroll that was 2 percent lower. Both impacts are believed attributable to factors that will similarly affect later years as well. In the absence of other changes, starting the projection from the higher actual cost rate in 2003 results in a permanently higher level of projected costs (and a lower level of projected cash income). These changes, together with a slightly lower starting population, resulted in a total average change in the actuarial balance of –0.17 percent of taxable payroll.

(3) Managed care assumptions: More recent and more complete data on the effect of implementing risk adjustment have been collected. These data show less savings once this methodology is in place, because the average health status of HMO beneficiaries is closer to average than the prior data indicated. This change results in a –0.05-percent change in the actuarial balance.

(4) Hospital assumptions: Changes in the hospital assumptions described in section III.A result in a –0.14-percent change in the actuarial balance. The primary assumptions contributing to this change are slightly higher assumed growth in hospital expenditures for the non-prospective payment system services, relative to the assumptions in last year's report, and higher non-labor price differentials for hospitals in the short range, based on the most recent actual differentials.

(5) Other provider assumptions: Offsetting changes to the non-hospital provider utilization and price assumptions result in a negligible change in the actuarial balance. The primary factors are a decision to allow for correction in past forecast errors in the skilled nursing facility market basket price index and a smaller assumed differential between the skilled nursing facility market basket and the hospital market basket.

(6) Legislative changes: The 2003 Medicare modernization act is estimated to change the HI actuarial balance by –0.17-percent change, primarily as a result of increased

payments to rural health providers and to private managed care plans. These changes are explained more fully in section IV.A of this report.

(7) Economic and demographic assumptions: Changes in the economic and demographic assumptions result in a –0.10-percent change in the actuarial balance, which arises mostly because of revisions made in projections of total population since last year's report. These revisions basically offset those made in the 2003 report.

Table II.B13.—Change in the 75-Year Actuarial Balance since the 2003 Report

1. Actuarial balance, intermediate assumptions, 2003 report	-2.40%
2. Changes:	
a. Valuation period	-0.09
b. Base estimate	-0.17
c. Managed care assumptions	-0.05
d. Hospital assumptions	-0.14
e. Other provider assumptions	0.00
f. Legislative changes	-0.17
g. Economic and demographic assumptions	-0.10
Net effect, above changes	-0.72
3. Actuarial balance, intermediate assumptions, 2004 report	-3.12

4. Long-Range Sensitivity Analysis

This section presents estimates that illustrate the sensitivity of the long-range cost rate and actuarial balance of HI to changes in selected individual assumptions. The estimates based on the three alternative sets of assumptions (that is, intermediate, low cost, and high cost) demonstrate the effects of varying all of the principal assumptions simultaneously in order to portray a generally more optimistic or pessimistic future, in terms of the projected financial status of the HI trust fund. In the sensitivity analysis presented in this section, the intermediate set of assumptions is used as the reference point, and one assumption at a time is varied within that alternative. Similar variations in the selected assumptions within the other alternatives would result in similar variations in the long-range estimates.

Each table that follows shows the effects of changing a particular assumption on the HI summarized income rates, summarized cost rates, and actuarial balances (as defined earlier in this report) for 25-year, 50-year, and 75-year valuation periods. Because the income rate varies only slightly with changes in assumptions, it is not considered in the discussion of the tables. The change in each of the actuarial balances is approximately equal to the change in the

corresponding cost rate, but in the opposite direction. For example, a lower projected cost rate would result in an improvement in the corresponding projected actuarial balance.

a. Real-Wage Differential

Table II.B14 shows the estimated HI income rates, cost rates, and actuarial balances on the basis of the intermediate assumptions, with various assumptions about the real-wage differential. These assumptions are that the ultimate real-wage differential will be 0.6 percentage point (as assumed for the high cost alternative), 1.1 percentage points (as assumed for the intermediate assumptions), and 1.6 percentage points (as assumed for the low cost alternative). In each case, the ultimate annual increase in the Consumer Price Index (CPI) is assumed to be 2.8 percent (as assumed for the intermediate assumptions), yielding ultimate percentage increases in average annual wages in covered employment of 3.4, 3.9, and 4.4 percent under the three illustrations, respectively.

Past increases in real earnings have exhibited substantial variation. During 1951-1970, real earnings grew by an average of 2.2 percent per year. During 1972-1996, however, the average annual increase in real earnings amounted to only 0.53 percent.[23] Poor performance in real-wage growth would be a matter of some concern; as shown in table II.B13, projected HI costs are fairly sensitive to the assumed growth rates in real wages. For the 75-year period 2004-2078, the summarized cost rate decreases from 6.85 percent (for a real-wage differential of 0.6 percentage point) to 6.27 percent (for a differential of 1.6 percentage points). The HI actuarial balance over this period shows a corresponding improvement for faster rates of growth in real wages.

[23]This period was chosen because it begins and ends with years in which the economy reached full employment. The period thus allows measurement of trend growth over complete economic cycles.

Table II.B14—Estimated HI Income Rates, Cost Rates, and Actuarial Balances, Based on Intermediate Estimates with Various Real-Wage Assumptions

[As a percentage of taxable payroll]

Valuation period	Ultimate percentage increase in wages-CPI[1]		
	3.4-2.8	3.9-2.8	4.4-2.8
Summarized income rate:			
25-year: 2004-2028	3.44	3.40	3.38
50-year: 2004-2053	3.43	3.39	3.36
75-year: 2004-2078	3.43	3.39	3.36
Summarized cost rate:			
25-year: 2004-2028	4.19	4.03	3.95
50-year: 2004-2053	5.58	5.32	5.16
75-year: 2004-2078	6.85	6.51	6.27
Actuarial balance:			
25-year: 2004-2028	-0.75	-0.63	-0.57
50-year: 2004-2053	-2.16	-1.94	-1.81
75-year: 2004-2078	-3.42	-3.12	-2.92

[1]The first value in each pair is the assumed ultimate annual percentage increase in average wages in covered employment. The second value is the assumed ultimate annual percentage increase in the CPI. The difference between the two values is the real-wage differential.

The sensitivity of the HI actuarial balance to different real-wage assumptions is significant, but not as substantial as one might intuitively expect. Higher real-wage differentials immediately increase both HI expenditures for health care and wages for all workers. Though there is a full effect on wages and payroll taxes, the effect on benefits is only partial, since not all health care costs are wage-related. Thus, the HI cost rate decreases with increasing real-wage differentials, because the higher real-wage levels increase the taxable payroll to a greater extent than they increase HI benefits. In particular, each 0.5-percentage-point increase in the assumed real-wage differential increases the long-range HI actuarial balance, on average, by about 0.25 percent of taxable payroll.

b. Consumer Price Index

Table II.B15 shows the estimated HI income rates, cost rates, and actuarial balances on the basis of the intermediate alternative, with various assumptions about the rate of increase for the CPI. These assumptions are that the ultimate annual increase in the CPI will be 1.8 percent (as assumed for the low cost alternative), 2.8 percent (as assumed for the intermediate assumptions), and 3.8 percent (as assumed for the high cost alternative). In each case, the ultimate real-wage differential is assumed to be 1.1 percent (as assumed for the intermediate assumptions), yielding ultimate percentage increases in average annual wages in covered employment of 2.9, 3.9, and 4.9 percent under the three illustrations.

Table II.B15.—Estimated HI Income Rates, Cost Rates, and Actuarial Balances, Based on Intermediate Estimates with Various CPI-Increase Assumptions

[As a percentage of taxable payroll]

Valuation period	Ultimate percentage increase in wages-CPI[1]		
	2.9-1.8	3.9-2.8	4.9-3.8
Summarized income rate:			
25-year: 2004-2028	3.41	3.40	3.38
50-year: 2004-2053	3.40	3.39	3.36
75-year: 2004-2078	3.40	3.39	3.36
Summarized cost rate:			
25-year: 2004-2028	4.04	4.03	3.97
50-year: 2004-2053	5.35	5.32	5.23
75-year: 2004-2078	6.56	6.51	6.39
Actuarial balance:			
25-year: 2004-2028	-0.63	-0.63	-0.59
50-year: 2004-2053	-1.96	-1.94	-1.87
75-year: 2004-2078	-3.16	-3.12	-3.03

[1]The first value in each pair is the assumed ultimate annual percentage increase in average wages in covered employment. The second value is the assumed ultimate annual percentage increase in the CPI.

For all three periods, the cost rate decreases slightly with greater assumed rates of increase in the CPI. Over the 75-year projection period, for example, the cost rate decreases from 6.56 percent (for CPI increases of 1.8 percent) to 6.39 percent (for CPI increases of 3.8 percent). The relative insensitivity of projected HI cost rates to different levels of general inflation occurs because inflation is assumed to affect both the taxable payroll of workers and medical care costs about equally.[24] In practice, differing rates of inflation could occur between the economy in general and the medical-care sector. The effect of such a difference can be judged from the sensitivity analysis shown in the subsequent section on miscellaneous health care cost factors. The effect of each 1.0-percentage-point increase in the rate of change assumed for the CPI is an increase in the long-range actuarial balance of about 0.06 percent of taxable payroll, on average.

c. Real-Interest Rate

Table II.B16 shows the estimated HI income rates, cost rates, and actuarial balances under the intermediate alternative, with various assumptions about the annual real-interest rate for special public-debt obligations issuable to the trust fund. These assumptions are that the ultimate annual real-interest rate will be 2.1 percent (as assumed for the high cost alternative), 2.9 percent (as assumed for the intermediate assumptions), and 3.6 percent (as assumed for the low cost alternative). In each case, the ultimate annual increase in

[24]The slight sensitivity shown in the table results primarily from the fact that the fiscal year 2004 payment rates for all providers have already been set before the actual CPI is known.

the CPI is assumed to be 2.8 percent (as assumed for the intermediate assumptions), resulting in ultimate annual yields of 4.9, 5.7, and 6.4 percent under the three illustrations.

Table II.B16.—Estimated HI Income Rates, Cost Rates, and Actuarial Balances, Based on Intermediate Estimates with Various Real-Interest Assumptions

[As a percentage of taxable payroll]

Valuation period	Ultimate annual real-interest rate		
	2.1 percent	2.9 percent	3.6 percent
Summarized income rate:			
25-year: 2004-2028	3.39	3.40	3.41
50-year: 2004-2053	3.38	3.39	3.40
75-year: 2004-2078	3.39	3.39	3.40
Summarized cost rate:			
25-year: 2004-2028	4.08	4.03	3.98
50-year: 2004-2053	5.54	5.32	5.12
75-year: 2004-2078	7.01	6.51	6.06
Actuarial balance:			
25-year: 2004-2028	-0.69	-0.63	-0.57
50-year: 2004-2053	-2.16	-1.94	-1.72
75-year: 2004-2078	-3.62	-3.12	-2.67

For all periods, the cost rate decreases with increasing real-interest rates. Over 2004-2078, for example, the summarized HI cost rate would decline from 7.01 percent (for an ultimate real-interest rate of 2.1 percent) to 6.06 percent (for an ultimate real-interest rate of 3.6 percent). Thus, each 1.0-percentage-point increase in the assumed real-interest rate increases the long-range actuarial balance, on average, by about 0.63 percent of taxable payroll. The fact that the HI actuarial balance is sensitive to the interest assumption is not an indication of the actual role that interest plays in the financing. In reality, interest finances very little of the HI cost. The sensitivity of the actuarial balance to the interest assumption is implicit in the present-value method used to determine the actuarial balance, since the present-value calculations are very sensitive to the interest rates used to discount future amounts to their present equivalent values.

d. Health Care Cost Factors

Table II.B17 shows the estimated HI income rates, cost rates, and actuarial balances on the basis of the intermediate set of assumptions, with two variations on the relative annual growth rate in the aggregate cost of providing covered health care services to HI beneficiaries. These assumptions are that the ultimate annual growth rate in such costs, relative to the growth in taxable payroll, will be 1 percent slower than the intermediate assumption, the same as the intermediate assumption, and 1 percent faster than the intermediate assumption. In each case, the taxable payroll will be the same as assumed for the intermediate assumptions.

As noted previously, factors such as wage and price increases may simultaneously affect HI tax income and the costs incurred by hospitals and other providers of medical care to HI beneficiaries. (The sensitivity of the trust fund's financial status to these factors is evaluated in sections II.B4a and II.B4b.) Other factors, such as the utilization of services by beneficiaries or the relative complexity of the services provided, can affect provider costs without affecting HI tax income. The sensitivity analysis shown in table II.B17 illustrates the financial effect of any combination of these factors that results in aggregate provider costs increasing by 1 percentage point faster or slower than the intermediate assumptions, relative to growth in taxable payroll under the intermediate assumptions.

Table II.B17.—Estimated HI Income Rates, Cost Rates, and Actuarial Balances, Based on Intermediate Estimates with Various Health Care Cost Growth Rate Assumptions

[As a percentage of taxable payroll]

	Annual cost/payroll relative growth rate		
Valuation period	-1 percentage point	0 percentage point	+1 percentage point
Summarized income rate:			
25-year: 2004-2028	3.40	3.40	3.40
50-year: 2004-2053	3.39	3.39	3.39
75-year: 2004-2078	3.39	3.39	3.39
Summarized cost rate:			
25-year: 2004-2028	3.51	4.03	4.64
50-year: 2004-2053	4.08	5.32	7.07
75-year: 2004-2078	4.44	6.51	9.94
Actuarial balance:			
25-year: 2004-2028	-0.11	-0.63	-1.23
50-year: 2004-2053	-0.69	-1.94	-3.68
75-year: 2004-2078	-1.05	-3.12	-6.55

As illustrated in table II.B17, the financial status of the HI trust fund is extremely sensitive to the relative growth rates for health care service costs versus taxable payroll. For the 75-year period, the cost rate increases from 4.44 percent (for an annual cost/payroll growth rate of 1 percentage point less than the intermediate assumptions) to 9.94 percent (for an annual cost/payroll growth rate of 1 percentage point more than the intermediate assumptions). Each 1.0-percentage-point increase in the assumed cost/payroll relative growth rate decreases the long-range actuarial balance, on average, by about 2.75 percent of taxable payroll.

C. SMI FINANCIAL STATUS

1. Total SMI

The Federal Supplementary Medical Insurance Trust Fund was established on July 30, 1965 as a separate account in the U.S. Treasury. All the financial operations of SMI are handled through this fund. Beginning in 2004, the trust fund consists of two separate accounts—one for Part B and one for Part D. The purpose of the two accounts is to ensure that funds from one part are not be used to finance the other.

In order to assess the financial status of the SMI trust fund, each account needs to be assessed individually, since the financing rates for each part are established separately, their program benefits are quite different in nature, and there is no provision for transferring assets. Sections II.C2 and II.C3 will discuss the financial status of Parts B and D individually. The purpose of this section is to present the expected operations of the SMI trust fund in total, combining the expected operations for Parts B and D, and to discuss the implications of continuing rapid SMI cost growth.

a. 10-Year Actuarial Estimates (2004-2013)

Future operations of the SMI trust fund are projected using the Trustees' economic and demographic assumptions, as detailed in the OASDI Trustees Report, as well as other assumptions unique to SMI. Section III.B presents an explanation of the effects of the Trustees' intermediate assumptions, and of the other assumptions unique to SMI, on the estimates in this report. Although Part B financing rates have been set only through December 31, 2004, it is assumed that financing for future periods will be determined according to the statutory provisions described in section II.C2 for Part B and section II.C3 for Part D. In addition, for the benefit expenditure estimates, it is assumed that current statutory provisions are maintained.

Table II.C1 shows the estimated operations of the SMI trust fund under the intermediate assumptions on a calendar-year basis through 2013. This table combines the operations of the Part B and Part D accounts to present the expected operations of the trust fund in total.

Table II.C1.—Operations of the SMI Trust Fund (Cash Basis) during Calendar Years 1970-2013

[In billions]

	Income					Expenditures			Trust fund	
Calendar year	Premium income[1]	General revenue[2]	Transfers from States	Interest and other[3,4]	Total	Benefit payments[4,5]	Administrative expense	Total	Net change	Balance at end of year[6]
Historical data:										
1970	$1.1	$1.1	—	$0.0	$2.2	$2.0	$0.2	$2.2	-$0.0	$0.2
1975	1.9	2.6	—	0.1	4.7	4.3	0.5	4.7	-0.1	1.4
1980	3.0	7.5	—	0.4	10.9	10.6	0.6	11.2	-0.4	4.5
1985	5.6	18.3	—	1.2	25.1	22.9	0.9	23.9	1.2	10.9
1990	11.3	33.0	—	1.6	45.9	42.5	1.5	44.0	1.9	15.5
1995	19.7	39.0	—	1.6	60.3	65.0	1.6	66.6	-6.3	13.1
1996	18.8	65.0	—	1.8	85.6	68.6	1.8	70.4	15.2	28.3
1997	19.3	60.2	—	2.5	81.9	72.8	1.4	74.1	7.8	36.1
1998	20.9[7]	64.1[7]	—	2.7	87.7	76.1[8]	1.5	77.6	10.1	46.2
1999	19.0[7]	59.1[7]	—	2.8	80.9	80.7[8]	1.6	82.3	-1.4	44.8
2000	20.6	65.9	—	3.5	89.9	88.9[8]	1.8	90.7	-0.8	44.0
2001	22.8	72.8	—	3.1	98.6	99.7[8]	1.7	101.4	-2.8	41.3
2002	25.1	78.3	—	2.8	106.2	111.0[8]	2.2	113.2	-7.0	34.3
2003	27.4	86.4	—	2.0	115.8	123.8[8]	2.3	126.1	-10.3	24.0
Intermediate estimates:										
2004	31.5	103.2	—	1.6	136.2	134.2	3.7	137.9	-1.7	22.2
2005	37.4	128.1	—	1.7	167.2	146.5	3.8	150.3	16.9	39.1
2006	52.4	182.0	$9.0	2.6	245.9	238.3	3.5	241.7	4.2	43.3
2007	55.7	192.9	9.8	2.9	261.3	255.3	3.6	258.9	2.5	45.8
2008	60.1	207.0	10.6	3.2	280.9	274.3	3.7	278.1	2.8	48.6
2009	64.5	221.1	11.4	3.4	300.4	293.5	3.9	297.4	3.0	51.6
2010	69.1	236.1	12.2	3.6	321.0	313.4	4.0	317.4	3.6	55.2
2011	74.1	252.5	13.1	3.8	343.6	335.2	4.2	339.4	4.1	59.4
2012	79.8	274.4	14.0	4.1	372.2	362.7	4.4	367.0	5.2	64.5
2013	87.1	300.0	15.2	4.4	406.8	395.7	4.5	400.2	6.6	71.1

[1]Premiums for Part D include only amounts withheld from the Social Security benefit checks or other Federal payments.

[2]Includes Part B general fund matching payments, Part D subsidy costs, and certain interest-adjustment items.

[3]Other income includes recoveries of amounts reimbursed from the trust fund that are not obligations of the trust fund and other miscellaneous income.

[4]See footnote 2 of table II.B5.

[5]Includes costs of Peer Review Organizations from 1983 through 2001, and costs of Quality Improvement Organizations beginning in 2002. Values after 2005 include additional premiums collected from beneficiaries and transferred to managed care plans, where the monthly plan cost exceeds the benchmark amount, and Part D drug premiums collected from beneficiaries and transferred to Medicare Advantage plans and private drug plans.

[6]The financial status of SMI depends on both the assets and the liabilities of the trust fund (see table II.C13).

[7]Section 708 of the Social Security Act modifies the provisions for the delivery of Social Security benefit checks when the regularly designated day falls on a Saturday, Sunday, or legal public holiday. Delivery of benefit checks normally due January 3, 1999 occurred on December 31, 1998. Consequently, the SMI premiums withheld from the checks ($1.5 billion) and the associated general revenue contributions ($4.7 billion) were added to the SMI trust fund on December 31, 1998. These amounts are excluded from the premium income and general revenue income for 1999.

[8]Benefit payments less monies transferred from the HI trust fund for home health agency costs, as provided for by the Balanced Budget Act of 1997.

Note: Totals do not necessarily equal the sums of rounded components.

b. 75-Year Actuarial Estimates (2004-2078)

Table II.C2 shows the estimated SMI incurred expenditures under the intermediate assumptions expressed as a percentage of GDP, for selected years over the calendar-year period 2003-2078.[25] The 75-year projection period fully allows for the presentation of future trends that may reasonably be expected to occur, such as the impact of the large increase in enrollees after 2010 when the baby boom generation will reach eligibility age and begin to receive benefits.

Table II.C2.—SMI Expenditures (Incurred Basis) as a Percentage of the Gross Domestic Product[1]

Calendar year	SMI expenditures as a percentage of GDP
2003	1.13%
2004	1.19
2005	1.23
2006	1.90
2007	1.94
2008	1.98
2009	2.01
2010	2.05
2011	2.08
2012	2.15
2013	2.24
2015	2.49
2020	3.10
2025	3.75
2030	4.31
2035	4.75
2040	5.10
2045	5.41
2050	5.74
2055	6.11
2060	6.55
2065	7.02
2070	7.49
2075	7.95
2080	8.24

[1]Expenditures are the sum of benefit payments and administrative expenses.

c. Implications of SMI Cost Growth

The SMI trust fund is adequately financed because beneficiary premiums and general revenue contributions, for both Part B and Part D, are established annually to cover the expected costs for the upcoming year. Should actual costs exceed those anticipated when the financing is determined, future rates can include adjustments to recover the shortfall. Likewise, should actual costs be less than those anticipated, the savings would be passed along in lower future rates.

[25]These estimated incurred expenditures are for benefit payments and administrative expenses combined, unlike the values in table II.C10, which express only benefit payments on a cash basis as a percentage of GDP.

As long as the financing rates are reasonably set, the SMI trust fund will remain financially solvent under current law.

However, a critical issue for the SMI trust fund is the impact of the rapid growth of SMI costs, which place steadily increasing demands on beneficiaries, taxpayers, and society at large. This section compares the past and projected growth in SMI costs with GDP growth and assesses the implications of the rapid growth on beneficiaries and the budget of the Federal Government.

Table II.C3 compares the growth in SMI expenditures with that of the economy as a whole. Based on our current estimates, SMI costs will continue to outpace growth in GDP. Compared to the last 10 years, the growth differential in the next 25 years is estimated to expand somewhat, due to (i) the increase in the SMI population as the baby boom generation turns age 65 and begins to receive benefits, and (ii) the faster growth trend associated with the new Part D prescription drug benefit.

Table II.C3.—Average Annual Rates of Growth in SMI and the Economy

[In percent]

	SMI			U.S. Economy			
Calendar years	Beneficiary population	Per capita benefits	Total benefits	Total population	Per capita GDP	Total GDP	Growth differential[1]
Historical data:							
1968-1983	3.0	14.6	18.1	1.0	8.4	9.4	7.9
1984-1993	1.8	9.5	11.5	1.1	5.4	6.5	4.7
1994-2003	1.1	7.3	8.5	1.0	4.1	5.1	3.2
Intermediate estimates:							
2004-2013	1.9	10.4[2]	12.4[2]	0.8	4.2	5.0	7.0
2014-2028	2.7	5.9	8.8	0.7	3.8	4.5	4.1
2029-2053	0.8	5.1	6.0	0.3	4.0	4.4	1.5
2054-2078	0.6	5.1	5.7	0.3	4.1	4.3	1.3

[1]Excess of total SMI benefit growth above total GDP growth.
[2]Includes the addition of the prescription drug benefit to the SMI program in 2006. Without 2006, the per capita benefits increased by 5.7 percent and the total benefits increased by 7.7 percent.

Since SMI per capita benefits are expected to continue to grow faster than per capita GDP, the premiums and coinsurance amounts paid by beneficiaries would generally represent a growing share of their total income. Figure II.C1 compares past and projected growth in average benefits for SMI versus Social Security. Amounts are also shown for the average SMI premium and average cost-sharing payments. (Each of these SMI amounts increases in 2006 with the introduction of the

Part D prescription drug benefit.) To facilitate comparison across long time periods, all values are shown in constant 2003 dollars.[26]

Over time, the average Social Security benefit tends to increase at about the rate of growth in average earnings. As noted previously, health care costs generally reflect increases in the earnings of health care professionals, other medical cost inflation, and growth in the utilization and intensity of services. As indicated in figure II.C1, average SMI benefits in 1970 were only about one-twelfth the level of average Social Security benefits but had grown to about one-third by 2003. Under the intermediate projections, SMI benefits would continue increasing at a faster rate and would exceed the average Social Security retired worker benefit after 2050.

Average beneficiary premiums and cost-sharing payments for SMI will increase at about the same rate as average SMI benefits.[27] Thus, a growing proportion of beneficiaries' Social Security and other income would generally be required over time to pay total out-of-pocket costs for SMI, including both premiums and cost-sharing amounts. For illustration, the average Part B plus Part D premium in 2010 is estimated to equal 13 percent of the average Social Security benefit but would increase to an estimated 30 percent in 2070. Similarly, an average cost-sharing amount in 2010 would be equivalent to 23 percent of the Social Security benefit, increasing to over 50 percent in 2070.

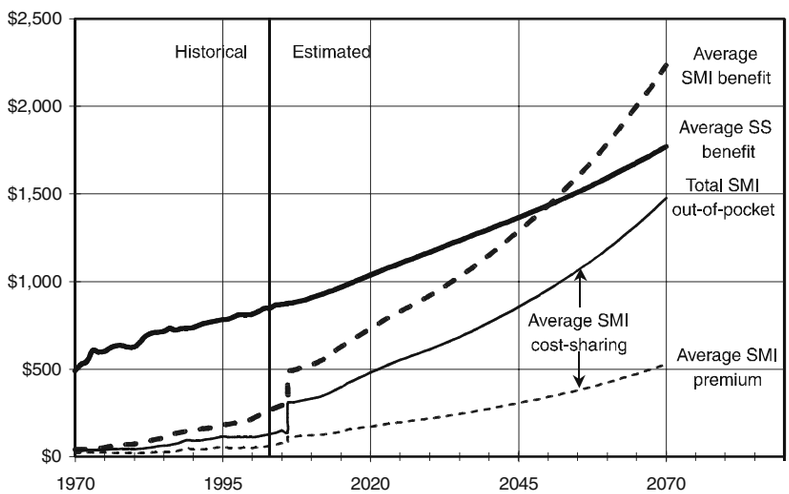
It is important to note that the availability of SMI Part B and D benefits greatly reduces the costs that beneficiaries would otherwise face for health care services. The introduction of the prescription drug benefit increases beneficiaries' costs for SMI premiums and cost sharing, but reduces their costs for previously uncovered services by substantially more. The purpose of the illustrations in figure II.C1 is

[26]The Social Security benefits shown are based on the average amount for all retired workers; individual retirees may receive significantly more or less than the average, depending on their past earnings. The value of SMI benefits to individual enrollees, and their cost-sharing payments, varies even more substantially, depending on their income, assets, and use of covered health services in a given year. In particular, Part B premiums and cost-sharing amounts for beneficiaries with very low incomes are paid by Medicaid, and (except for nominal copayments) the corresponding Part D amounts are paid through the Medicare low-income drug subsidy. Moreover, Part B beneficiaries with very high incomes will pay a higher income-related premium beginning in 2007. For purposes of illustration, the average SMI benefit value and cost-sharing liability for all beneficiaries are shown.

[27]As a result, the ratio of average SMI out-of-pocket payments to average SMI benefits is projected to be nearly constant over time.

to highlight the impact of rapid cost growth for a given SMI benefit package.

Figure II.C1.—Comparison of Average Monthly SMI Benefits, Premiums, and Cost-Sharing to the Average Monthly Social Security Benefit
[Amounts in constant 2003 dollars]



Another way to evaluate the implications of rapid SMI growth is to compare the government contributions to the SMI trust fund with total Federal income taxes (personal and corporate income taxes). Table II.C4 indicates that SMI general revenues in fiscal year 2003 were equivalent to about 8.7 percent of total Federal income taxes collected in that year. With the addition of the prescription drug benefit in 2006, SMI general revenues will substantially increase as a percentage of total income taxes. If such taxes in the future maintain their historical average level of the last 50 years, relative to the national economy, then SMI general revenue financing in 2080 would represent more than 50 percent of total income taxes, based on the intermediate projections.

Table II.C4.—SMI General Revenues as a Percentage of Personal and Corporate Federal Income Taxes

Fiscal year	Percentage of income taxes[1]
Historical data:	
1970	0.8%
1980	2.2
1990	5.9
2000	5.4
2003	8.7
Intermediate estimates:	
2010	13.8
2020	20.8
2030	28.8
2040	33.8
2050	37.7
2060	42.6
2070	48.0
2080	53.3

[1]Includes the Part D prescription drug benefit beginning in 2006.

These examples illustrate the significant impact that SMI expenditure growth has had to date on beneficiaries and the Federal Budget. Under present law, the projected SMI expenditure increases associated with the cost of providing health care generally, plus the impact of the baby boom's reaching eligibility age, would continue to exert growing pressure. This outlook reinforces the Trustees' recommendation for development and enactment of reforms to reduce the rate of growth in SMI expenditures.

2. Part B Account

a. Financial Operations in Fiscal Year 2003

A statement of the revenue and expenditures of the Part B account of the SMI trust fund in fiscal year 2003, and its assets at the beginning and end of the fiscal year, is presented in table II.C5.

Table II.C5.—Statement of Operations of the Part B Account in the SMI Trust Fund during Fiscal Year 2003
[In thousands]

Total assets of the trust fund, beginning of period		$38,659,491
Revenue:		
Premiums from enrollees:		
Enrollees aged 65 and over	$23,114,340	
Disabled enrollees under age 65	3,719,897	
Total premiums		26,834,236
Government contributions:		
Enrollees aged 65 and over	67,495,853	
Disabled enrollees under age 65	13,409,139	
Total Government contributions		80,904,992
Other		8,236
Interest on investments		2,446,604
Total revenue		110,194,068
Expenditures:		
Net benefit payments		121,698,626
Administrative expenses:		
Transfer to Medicaid[1]	112,094	
Treasury administrative expenses	285	
Salaries and expenses, CMS[2]	1,603,565	
Salaries and expenses, Office of the Secretary, HHS	3,488	
Salaries and expenses, SSA	628,004	
Medicare Payment Assessment Commission	3,412	
Railroad Retirement administrative expenses	5,260	
Total administrative expenses		2,356,107
Total expenditures		124,054,733
Net addition to the trust fund		-13,860,665
Total assets of the trust fund, end of period		$24,798,827

[1]Represents amount transferred from the SMI trust fund to Medicaid to pay the SMI premium for certain qualified individuals, as legislated by the Balanced Budget Act of 1997.
[2]Includes administrative expenses of the carriers and intermediaries.

Note: Totals do not necessarily equal the sums of rounded components.

The total assets of the account amounted to $38,659 million on September 30, 2002. During fiscal year 2003, total revenue amounted to $110,194 million, and total expenditures were $124,055 million. Total assets thus decreased $13,861 million during the year, to $24,799 million as of September 30, 2003.

The decline in assets occurred primarily because legislation to increase payments to physicians was enacted in February 2003, after beneficiary premiums and general revenue funding had already been established for the year. Although a payment reduction of 4.4 percent was mandated under the prior law, implementation was postponed due to the pending legislation. As a result, actual physician expenditures for 2003 were significantly greater than anticipated

when financing was set. In addition, other Part B costs increased slightly more, overall, than previously estimated.

(1) Revenues

The major sources of revenue of the Part B account are (1) contributions of the Federal Government that are authorized to be appropriated and transferred from the general fund of the Treasury, and (2) premiums paid by eligible persons who are voluntarily enrolled. Eligible persons aged 65 and over have been able to enroll in Part B since its inception in July 1966. Since July 1973, disabled persons who are under age 65 and who have met certain eligibility requirements have also been able to enroll.

Of the total Part B revenue, $26,834 million represented premium payments by (or on behalf of) aged and disabled enrollees—an increase of 9.9 percent over the amount of $24,427 million for the preceding year. This increase resulted from the growth of the number of persons enrolled in Part B and the increase in the Part B premium to $58.70 for 2003.

Premiums paid for fiscal years 1967 through 1973 were matched by an equal amount of government contributions. Beginning July 1973, the amount of government contributions corresponding to premiums paid by each of the two groups of enrollees is determined by applying a "matching ratio," prescribed in the law for each group, to the amount of premiums received from that group. The ratio is equal to (1) twice the monthly actuarial rate applicable to the particular group of enrollees, minus the standard monthly premium rate, divided by (2) the standard monthly premium rate.

Standard monthly premium rates and actuarial rates are promulgated each year by the Secretary of Health and Human Services. Past monthly premium rates and actuarial rates are shown in table II.C6, together with the corresponding percentages of Part B costs covered by the premium rate. Estimated future premium amounts under the intermediate set of assumptions appear in section IV.C.

Table II.C6.—Standard Part B Monthly Premium Rates, Actuarial Rates, and Premium Rates as a Percentage of Part B Cost

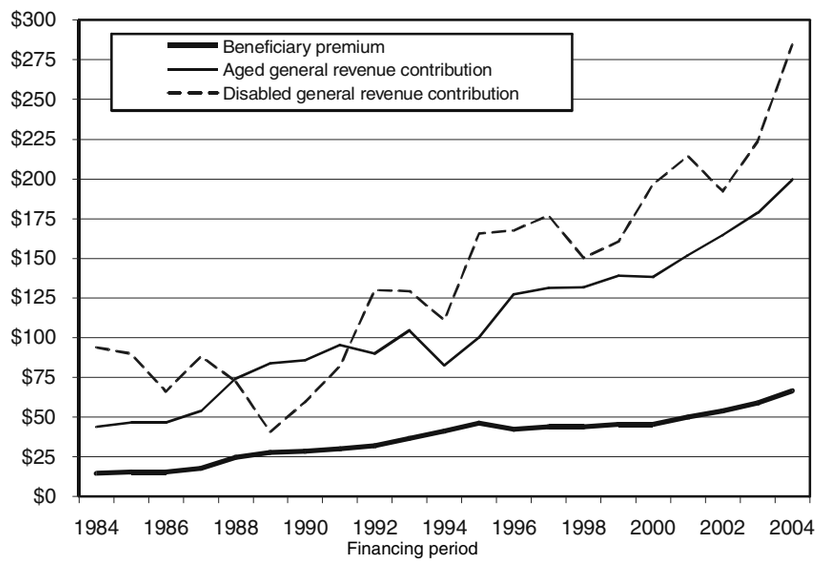
	Standard monthly premium rate	Monthly actuarial rate		Premium rates as a percentage of Part B cost	
		Enrollees aged 65 and over	Disabled enrollees under age 65	Enrollees aged 65 and over	Disabled enrollees under age 65
July 1966-March 1968	$3.00	—	—	50.0%	—
April 1968-June 1970	4.00	—	—	50.0	—
12-month period ending June 30 of					
1971	5.30	—	—	50.0	—
1972	5.60	—	—	50.0	—
1973	5.80	—	—	50.0	—
1974[1]	6.30	$6.30	$14.50	50.0	21.7%
1975	6.70	6.70	18.00	50.0	18.6
1976	6.70	7.50	18.50	44.7	18.1
1977	7.20	10.70	19.00	33.6	18.9
1978	7.70	12.30	25.00	31.3	15.4
1979	8.20	13.40	25.00	30.6	16.4
1980	8.70	13.40	25.00	32.5	17.4
1981	9.60	16.30	25.50	29.4	18.8
1982	11.00	22.60	36.60	24.3	15.0
1983	12.20	24.60	42.10	24.8	14.5
July 1983-December 1983	12.20	27.00	46.10	22.6	13.2
Calendar year					
1984	14.60	29.20	54.30	25.0	13.4
1985	15.50	31.00	52.70	25.0	14.7
1986	15.50	31.00	40.80	25.0	19.0
1987	17.90	35.80	53.00	25.0	16.9
1988	24.80	49.60	48.60	25.0	25.5
1989	31.90[2]	55.80	34.30	25.0[3]	40.7[3]
1990	28.60	57.20	44.10	25.0	32.4
1991	29.90	62.60	56.00	23.9	26.7
1992	31.80	60.80	80.80	26.2	19.7
1993	36.60	70.50	82.90	26.0	22.1
1994	41.10	61.80	76.10	33.3	27.0
1995	46.10	73.10	105.80	31.5	21.8
1996	42.50	84.90	105.10	25.0	20.2
1997	43.80	87.60	110.40	25.0	19.8
1998	43.80	87.90	97.10	24.9	22.6
1999	45.50	92.30	103.00	24.6	22.1
2000	45.50	91.90	121.10	24.8	18.8
2001	50.00	101.00	132.20	24.8	18.9
2002	54.00	109.30	123.10	24.7	21.9
2003	58.70	118.70	141.00	24.7	20.8
2004	66.60	133.20	175.50	25.0	19.0

[1]In accordance with limitations on the costs of health care imposed under Phase III of the Economic Stabilization program, the standard premium rates for July and August 1973 were set at $5.80 and $6.10, respectively. Effective September 1973, the rate increased to $6.30.
[2]This rate includes the $4.00 catastrophic coverage monthly premium that was paid by most enrollees under the Medicare Catastrophic Coverage Act of 1988 (subsequently repealed).
[3]The premium rates as a percentage of Part B cost for calendar year 1989 apply to the non-catastrophic portion of the standard monthly premium rate.

Figure II.C2 is a graphical representation of the monthly per capita financing rates, for financing periods since 1983, for enrollees aged 65 and over and for disabled individuals under age 65. The graph shows the portion of the financing contributed by the beneficiaries and by

general revenues. As indicated, general revenue financing is the largest income source for Part B.

Figure II.C2.—SMI Aged and Disabled Monthly Per Capita Income



Note: The amounts shown do not include the catastrophic coverage monthly premium rate for 1989.

In fiscal year 2003, contributions received from the general fund of the Treasury amounted to $80,905 million, which accounted for 73.4 percent of total revenue.

Another source of Part B revenue is interest received on investments held by the Part B account. The investment procedures of the Part B account are described later in this section. In fiscal year 2003, $2,447 million of revenue consisted almost entirely of interest on the investments of the account.

The Managing Trustee may accept and deposit in the Part B account unconditional money gifts or bequests made for the benefit of the fund. Contributions in the amount of $8 million were made in fiscal year 2003.

(2) Expenditures

Expenditures for Part B benefit payments and administrative expenses are paid out of the account. All expenses incurred by the Department of Health and Human Services, the Social Security

Administration, and the Department of the Treasury in administering Part B are charged to the account. Such administrative duties include payment of benefits, the fraud and abuse control activities, and experiments and demonstration projects designed to determine various methods of increasing efficiency and economy in providing health care services, while maintaining the quality of such services.

In addition, Congress has authorized expenditures from the trust funds for construction, rental and lease, or purchase contracts of office buildings and related facilities for use in connection with the administration of Part B. Such costs are included in the account expenditures. The net worth of facilities and other fixed capital assets, however, is not carried in the statement of Part B assets presented in this report, since the value of fixed capital assets does not represent funds available for benefit or administrative expenditures and is not, therefore, pertinent in assessing the actuarial status of the funds.

Of the $124,055 million in total Part B expenditures, $121,699 million represented net benefits paid from the account for health services.[28] Net benefits increased 13.7 percent over the corresponding amount of $106,995 million paid during the preceding fiscal year. This increase reflects (i) the impact of the Consolidated Appropriations Resolution (CAR), 2003 which significantly increased payments to physicians in 2003, (ii) the continuing impact of the transfer of a portion of costs of home health care services from the HI trust fund, as specified in the Balanced Budget Act of 1997, and (iii) sizable increases in certain other Part B benefit categories. Additional information on Part B benefits by type of service is available in section III.B1.

The remaining $2,356 million of expenditures was for net Part B administrative expenses, after adjustments to the preliminary allocation of administrative costs among the Social Security and Medicare trust funds and the general fund of the Treasury.

(3) Actual experience versus prior estimates

Table II.C7 compares the actual experience in fiscal year 2003 with the estimates presented in the 2002 and 2003 annual reports. A number of factors can contribute to differences between estimates and

[28]Net benefits equal the total gross amounts initially paid from the trust fund during the year less recoveries of overpayments identified through fraud and abuse control activities.

subsequent actual experience. In particular, actual values for key economic and other variables can differ from assumed levels, and legislative and regulatory changes may be adopted after a report's preparation. Table II.C7 indicates that actual Part B benefit payments were much higher than estimated in the 2002 report because the CAR, which was enacted subsequent to the 2002 report, substantially increased payments to physicians in 2003, as previously noted. Benefit payments were slightly higher than estimated in the 2003 report. Actual premium collections were higher, and government contributions were slightly lower than estimated in the 2002 report, mainly due to the actual 2003 financing rates being set after the 2002 report was issued. Meanwhile, actual premium collections and government contributions were nearly identical to the estimates in the 2003 report, reflecting the actual 2003 financing rates.

Table II.C7.—Comparison of Actual and Estimated Operations of the Part B Account in the SMI Trust Fund, Fiscal Year 2003

[Dollar amounts in millions]

		Comparison of actual experience with estimates for fiscal year 2003 published in:			
		2003 report		2002 report	
Item	Actual amount	Estimated amount[1]	Actual as a percentage of estimate	Estimated amount[1]	Actual as a percentage of estimate
Premiums from enrollees	$26,834	$26,755	100	$25,842	104
Government contributions	80,905	80,905	100	82,079	99
Benefit payments	121,699	120,063	101	108,949	112

[1]Under the intermediate assumptions.

(4) Assets

The portion of the account that is not required to meet current expenditures for benefits and administration is invested in interest-bearing obligations of the U.S. Government.

The Social Security Act authorizes the issuance of special public-debt obligations for purchase exclusively by the account. The law requires that these special public-debt obligations shall bear interest, at a rate based on the average market yield (computed on the basis of market quotations as of the end of the calendar month immediately preceding the date of such issue), on all marketable interest-bearing obligations of the United States forming a part of the public debt that are not due or callable until after 4 years from the end of that month. Since the

inception of the SMI trust fund, the assets have always been invested in special public-debt obligations.[29]

Table II.C8 shows a comparison of the total assets of the Part B account and their distribution at the end of fiscal years 2002 and 2003. At the end of 2003, assets totaled $24,799 million: $24,922 million in the form of U.S. Government obligations and an undisbursed balance of –$123 million. A comparison of assets of the account with liabilities for incurred but unpaid benefits (and related administrative expenses) is shown in section II.C2b.

Table II.C8.—Assets of the Part B Account in the SMI Trust Fund, by Type, at the End of Fiscal Years 2002 and 2003[1]

	September 30, 2002	September 30, 2003
Investments in public-debt obligations sold only to the trust funds (special issues):		
Certificates of indebtedness:		
4.375-percent, 2003	1,178,957,000.00	——
Bonds:		
5.250-percent, 2016	297,753,000.00	297,753,000.00
5.625-percent, 2016	1,822,107,000.00	1,822,107,000.00
5.875-percent, 2005-2008	1,196,468,000.00	——
5.875-percent, 2009-2013	3,723,056,000.00	3,723,056,000.00
6.000-percent, 2005-2008	1,881,036,000.00	——
6.000-percent, 2009-2014	5,343,182,000.00	5,343,182,000.00
6.250-percent, 2004-2007	798,467,000.00	——
6.250-percent, 2008	1,523,363,000.00	829,408,000.00
6.500-percent, 2004-2007	145,152,000.00	——
6.500-percent, 2008-2015	3,292,113,000.00	3,292,113,000.00
6.875-percent, 2004-2007	2,270,437,000.00	——
6.875-percent, 2008-2012	4,497,910,000.00	4,497,910,000.00
7.000-percent, 2004-2007	357,539,000.00	——
7.000-percent, 2008-2011	3,498,488,000.00	3,498,488,000.00
7.250-percent, 2004-2007	188,448,000.00	——
7.250-percent, 2008-2009	1,617,589,000.00	1,617,589,000.00
7.375-percent, 2004-2007	1,515,991,000.00	——
8.125-percent, 2004-2006	1,673,574,000.00	——
8.750-percent, 2004-2005	1,982,866,000.00	——
Total investments	$38,804,496,000.00	$24,921,606,000.00
Undisbursed balance[2]	-145,004,703.03	-122,779,490.25
Total assets	$38,659,491,296.97	$24,798,826,309.75

[1]Certificates of indebtedness and bonds are carried at par value, which is the same as book value.
[2]Negative figures represent an extension of credit against securities to be redeemed within the following few days.

The effective annual rate of interest earned by the assets of the Part B account for the 12 months ending on December 31, 2003 was 5.9 percent. Interest on special issues is paid semiannually on June 30 and December 31. The interest rate on special issues purchased by the account in June 2003 was 3.5 percent, payable semiannually.

[29]Investments may also be made in obligations guaranteed as to both principal and interest by the United States, including certain federally sponsored agency obligations.

b. 10-Year Actuarial Estimates (2004-2013)

Future operations of the Part B account are projected using the Trustees' economic and demographic assumptions, as detailed in the OASDI Trustees Report, as well as other assumptions unique to Part B. Section III.B1 presents an explanation of the effects of the Trustees' intermediate assumptions, and of the other assumptions unique to Part B, on the estimates in this report. It is also been assumed that financing for future periods will be determined according to the statutory provisions described in section II.C2a, although Part B financing rates have been set only through December 31, 2004. In addition, for the benefit expenditure estimates, it is assumed that current statutory provisions are maintained.

Table II.C9 shows the estimated operations of the Part B account under the intermediate assumptions on a calendar-year basis through 2013.

Table II.C9.—Operations of the Part B Account in the SMI Trust Fund (Cash Basis) during Calendar Years 1970-2013

[In billions]

	Income				Expenditures			Account	
Calendar year	Premium income	General revenue[1]	Interest and other[2,3]	Total	Benefit payments[3,4]	Adminis-trative expenses	Total	Net change	Balance at end of year[5]
Historical data:									
1970	$1.1	$1.1	$0.0	$2.2	$2.0	$0.2	$2.2	-$0.0	$0.2
1975	1.9	2.6	0.1	4.7	4.3	0.5	4.7	-0.1	1.4
1980	3.0	7.5	0.4	10.9	10.6	0.6	11.2	-0.4	4.5
1985	5.6	18.3	1.2	25.1	22.9	0.9	23.9	1.2	10.9
1990	11.3	33.0	1.6	45.9	42.5	1.5	44.0	1.9	15.5
1995	19.7	39.0	1.6	60.3	65.0	1.6	66.6	-6.3	13.1
1996	18.8	65.0	1.8	85.6	68.6	1.8	70.4	15.2	28.3
1997	19.3	60.2	2.5	81.9	72.8	1.4	74.1	7.8	36.1
1998	20.9[6]	64.1[6]	2.7	87.7	76.1[7]	1.5	77.6	10.1	46.2
1999	19.0[6]	59.1[6]	2.8	80.9	80.7[7]	1.6	82.3	-1.4	44.8
2000	20.6	65.9	3.5	89.9	88.9[7]	1.8	90.7	-0.8	44.0
2001	22.8	72.8	3.1	98.6	99.7[7]	1.7	101.4	-2.8	41.3
2002	25.1	78.3	2.8	106.2	111.0[7]	2.2	113.2	-7.0	34.3
2003	27.4	86.4	2.0	115.8	123.8[7]	2.3	126.1	-10.3	24.0
Intermediate estimates:									
2004	31.5	100.2	1.6	133.2	131.7	3.2	134.9	-1.7	22.2
2005	37.4	116.1	1.7	155.1	143.7	3.0	146.7	8.4	30.6
2006	38.8	119.2	2.1	160.1	154.0	2.7	156.7	3.4	34.0
2007	40.7	124.4	2.3	167.4	163.0	2.8	165.8	1.6	35.6
2008	43.6	131.9	2.5	178.0	173.2	2.9	176.2	1.9	37.5
2009	46.5	139.0	2.7	188.2	183.1	3.1	186.2	2.1	39.5
2010	49.6	146.6	2.8	199.0	193.3	3.2	196.5	2.5	42.1
2011	52.9	154.9	3.0	210.8	204.7	3.3	208.0	2.7	44.8
2012	56.5	165.3	3.2	225.0	218.0	3.4	221.4	3.6	48.4
2013	61.1	178.7	3.4	243.2	234.9	3.6	238.4	4.8	53.2

[1]General fund matching payments, plus certain interest-adjustment items.

[2]Other income includes recoveries of amounts reimbursed from the trust fund that are not obligations of the trust fund and other miscellaneous income.

[3]See footnote 2 of table II.B5.

[4]Includes costs of Peer Review Organizations from 1983 through 2001, and costs of Quality Improvement Organizations beginning in 2002.

[5]The financial status of Part B depends on both the assets and the liabilities of the trust fund (see table II.C13).

[6]Section 708 of the Social Security Act modifies the provisions for the delivery of Social Security benefit checks when the regularly designated day falls on a Saturday, Sunday, or legal public holiday. Delivery of benefit checks normally due January 3, 1999 occurred on December 31, 1998. Consequently, the SMI premiums withheld from the checks ($1.5 billion) and the associated general revenue contributions ($4.7 billion) were added to the SMI trust fund on December 31, 1998. These amounts are excluded from the premium income and general revenue income for 1999.

[7]Benefit payments less monies transferred from the HI trust fund for home health agency costs, as provided for by the Balanced Budget Act of 1997.

Note: Totals do not necessarily equal the sums of rounded components.

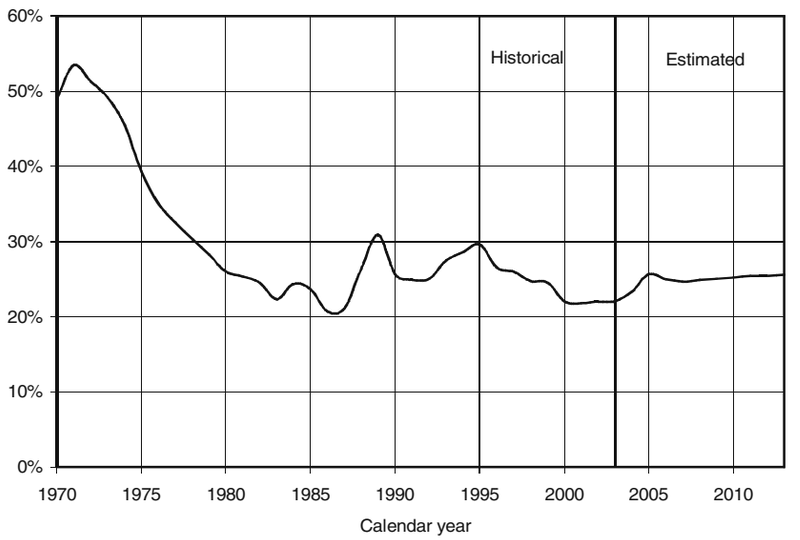
As shown in table II.C9, the account is estimated to decrease during 2004 to an estimated $22.2 billion by the end of the year. The beneficiary premiums and actuarial rates for calendar year 2004 were promulgated with specific margins to increase the size of the Part B account slightly. However, after the 2004 rates were set, the Medicare modernization act (MMA) was enacted. This legislation significantly increases physician payments in 2004. In addition, other provisions in the MMA increase payments to private managed care plans, to rural

Part B providers, and to therapists. (Other provisions partially offset these higher Part B costs in 2004.) Finally, actual program expenditures for calendar year 2003 were slightly higher than expected, producing a higher projection base for estimating 2004 expenditures. The significant increase in expenditures due to the legislation, on top of the higher projection base, results in a projected decrease in the account in 2004.

As noted later in this section, the actual and expected deficits in the Part B account in 2003 and 2004 will draw account assets to a level that is well below the range preferred for contingency purposes. As a result, beneficiary premiums and matching general revenue financing will need to be raised significantly for 2005. The projections in table II.C9 are based on a 17.3 percent increase in financing. Accordingly, the account is then projected to increase to $30.6 billion by the end of 2005, with the inclusion of financing margins to restore the contingency reserve to the preferred level. For subsequent years, financing margins are set in such a way that the account assets will increase with expenditures, so that the preferred contingency level would be maintained.

The statutory provisions governing Part B financing have changed over time. Most recently, the Balanced Budget Act of 1997 (BBA) provided for the permanent establishment of the Part B premium at the level of about 25 percent of aged expenditures. Figure II.C3 shows historical and projected ratios of premium income to Part B expenditures.

Figure II.C3.—Premium Income as a Percentage of Part B Expenditures



The amount and rate of growth of benefit payments have been a source of some concern for many years. In table II.C10, amounts of payments are considered in the aggregate, on a per capita basis, and relative to the Gross Domestic Product (GDP). Rates of growth are shown historically and for the next 10 years, based on the intermediate set of assumptions. During 2003, Part B benefits grew 11.6 percent on an aggregate basis and increased to 1.13 percent of GDP. These large increases arose, in part, due to the transfer of certain home health services into Part B, as specified in the BBA. Another contributory factor was about 17-percent growth in durable medical equipment and roughly 25-percent growth in physician-administered drug expenditures. For 2004, benefits are expected to grow 6.4 percent on an aggregate basis and 4.8 percent on a per capita basis, and to increase from 1.13 to 1.14 percent of GDP.

Table II.C10.—Growth in Part B Benefits (Cash Basis) through December 31, 2013

Calendar year	Aggregate benefits [billions]	Percent change	Per capita benefits	Percent change	Part B benefits as a percentage of GDP
Historical data:					
1970	$2.0	5.9	$101	3.5	0.19
1975	4.3	28.8	180	24.6	0.26
1980	10.6	22.1	390	19.3	0.38
1985	22.9	16.7	768	14.5	0.55
1990	42.5	10.9	1,304	9.2	0.74
1995	65.0	10.8	1,823	9.2	0.88
1996	68.6	5.6	1,900	4.2	0.88
1997	72.8	6.1	1,996	5.1	0.87
1998	76.1[1]	4.6	2,071	3.7	0.87
1999	80.7[1]	6.0	2,180	5.3	0.87
2000	88.9[1]	10.1	2,381	9.2	0.90
2001	99.7[1]	12.1	2,646	11.1	0.99
2002	111.0[1]	11.3	2,916	10.2	1.06
2003	123.8[1]	11.6	3,219	10.4	1.13
Intermediate estimates:					
2004	131.7	6.4	3,374	4.8	1.14
2005	143.7	9.1	3,634	7.7	1.19
2006	154.0	7.1	3,842	5.7	1.21
2007	163.0	5.9	4,004	4.2	1.22
2008	173.2	6.3	4,179	4.4	1.24
2009	183.1	5.7	4,337	3.8	1.24
2010	193.3	5.6	4,495	3.6	1.25
2011	204.7	5.9	4,662	3.7	1.26
2012	218.0	6.5	4,838	3.8	1.28
2013	234.9	7.7	5,069	4.8	1.31

[1]See footnote 7 of table II.C9.

The projected growth in Part B benefits slows dramatically during the next 10 years. This is because the physician fee schedule payment updates are determined based on the sustainable growth rate system (SGR). The SGR requires that future physician payment increases be adjusted for past actual physician spending relative to a target spending level. The cumulative implications of past physician spending being over the target levels, exacerbated by the physician updates legislated in the Medicare modernization act (MMA), yield projected physician updates of about –5 percent for 7 years, beginning in 2006. Multiple years of significant reductions in physician payments per service are very unlikely to occur before legislative changes intervene, but these payment reductions are required under the current law SGR system and are included in the physician fee schedule projections. Consequently, the current-law Part B projections shown in this report are very likely to understate actual future expenditures in 2006 and later.

The estimated costs shown in this annual report are somewhat higher over the next several years than those in the 2003 annual report. The costs then become slightly lower than the 2003 report by 2012. These differences are largely the result of the MMA's impact on physician payments. Overall, despite the statutory reductions to physician

payments, Part B costs in the 2004 annual report are expected to continue increasing faster than GDP, as indicated in table II.C10.

Since future economic, demographic, and health care usage and cost experience may vary considerably from the intermediate assumptions on which the preceding cost estimates were based, estimates have also been prepared using two alternative sets of assumptions: low cost and high cost. The estimated operations of the Part B account for all three alternatives are summarized in table II.C11. The assumptions underlying the intermediate assumptions are presented in substantial detail in section III.B1. The assumptions used in preparing estimates under the low cost and high cost alternatives are also summarized in that section.

Table II.C11.—Estimated Operations of the Part B Account in the SMI Trust Fund during Calendar Years 2003-2013, under Alternative Sets of Assumptions

[Dollar amounts in billions]

Calendar year	Premiums from enrollees	Other income[1]	Total income	Total expenditures	Balance in fund at end of year
Intermediate:					
2003[2]	$27.4	$88.4	$115.8	$126.1[3]	$24.0
2004	31.5	101.7	133.2	134.9	22.2
2005	37.4	117.8	155.1	146.7	30.6
2006	38.8	121.3	160.1	156.7	34.0
2007	40.7	126.7	167.4	165.8	35.6
2008	43.6	134.4	178.0	176.2	37.5
2009	46.5	141.7	188.2	186.2	39.5
2010	49.6	149.5	199.0	196.5	42.1
2011	52.9	157.9	210.8	208.0	44.8
2012	56.5	168.5	225.0	221.4	48.4
2013	61.1	182.1	243.2	238.4	53.2
Low cost:					
2003[2]	$27.4	$88.4	$115.8	$126.1[3]	$24.0
2004	31.5	101.8	133.3	132.6	24.6
2005	35.9	112.8	148.7	141.2	32.2
2006	35.6	112.0	147.6	147.7	32.0
2007	37.6	116.9	154.5	153.1	33.4
2008	39.4	121.2	160.6	159.0	35.0
2009	41.0	124.8	165.8	164.1	36.7
2010	42.7	128.6	171.3	169.3	38.7
2011	44.5	132.8	177.4	175.2	40.9
2012	46.1	137.8	184.0	181.7	43.2
2013	48.5	144.6	193.1	190.3	45.9
High cost:					
2003[2]	$27.4	$88.4	$115.8	$126.1[3]	$24.0
2004	31.5	101.7	133.2	135.6	21.5
2005	39.2	123.5	162.6	152.2	31.9
2006	41.2	129.1	170.3	166.3	35.9
2007	43.8	136.3	180.1	177.3	38.7
2008	48.7	150.0	198.7	194.7	42.6
2009	54.6	166.5	221.0	217.3	46.4
2010	60.0	181.3	241.3	237.2	50.5
2011	65.6	196.2	261.9	257.1	55.2
2012	71.9	214.8	286.7	280.8	61.2
2013	79.9	238.7	318.6	310.9	68.8

[1]Other income contains government contributions and interest.
[2]Figures for 2003 represent actual experience.
[3]See footnote 7 of table II.C9.

Note: Totals do not necessarily equal the sums of rounded components.

The three sets of assumptions were selected in order to indicate the general range in which the cost might reasonably be expected to fall. The low and high cost alternatives provide for a fairly wide range of possible experience. Actual experience is expected to fall within the range, but no assurance can be given that this will be the case, particularly in light of the wide variations in experience that have occurred since Part B began. In addition to the alternative projections shown here, a supplementary assessment of the possible range of Part B expenditures is shown in section IV.D, based on a statistical analysis of past variation in Part B expenditure growth rates.

Part B expenditures are estimated to grow significantly faster than GDP under the intermediate and high cost assumptions. Based on the low cost assumptions, expenditures would increase faster than GDP except for 2006 through 2012 when physician payments are expected to receive payment updates of –5 percent per year.

The alternative projections shown in table II.C11 illustrate two important aspects of the financial operations of the Part B account:

- Despite the widely differing assumptions underlying the three alternatives, the balance between Part B income and expenditures remains relatively stable. Under the low cost assumptions, for example, by 2013 both income and expenditures would be around 20 percent lower than projected under the intermediate assumptions. The corresponding amounts under the high cost assumptions would be around 30 percent higher than the intermediate estimates.

  This result occurs because the premiums and general revenue contributions underlying Part B financing are reestablished annually to match each year's anticipated incurred benefit costs and other expenditures. Thus, Part B income will automatically track Part B expenditures fairly closely, regardless of the specific economic and other conditions.

- As a result of the close matching of income and expenditures described above, projected account assets show stable patterns of change under all three sets of assumptions. The annual adjustment of premiums and general revenue contributions permits the maintenance of a Part B account balance that, while relatively small, is sufficient to guard against chance fluctuations.

Adequacy of Part B Financing Established for Calendar Year 2004

The traditional concept of financial adequacy, as it applies to Part B, is closely related to the concept as it applies to many private group insurance plans. Part B is somewhat similar to yearly renewable term insurance, with financing from premium income paid by the enrollees and from income contributed from general revenue by the Federal Government. Consequently, the income during a 12-month period for which financing is being established should be sufficient to cover the costs of services expected to be rendered during that period (including associated administrative costs), even though payment for some of these services will not be made until after the period closes. The portion of income required to cover those benefits not paid until

after the end of the year is added to the account. Thus, the assets that are in the account at any time should be no less than the costs of the benefits and the administrative expenses incurred but not yet paid.

Since the income per enrollee (premium plus government contribution) is established prospectively each year, it is subject to projection error. Additionally, legislation enacted after the financing has been established, but effective for the period for which financing has been set, may affect costs. Account assets, therefore, should be maintained at a level that is adequate to cover not only the value of incurred but unpaid expenses but also a reasonable degree of variation between actual and projected costs (in case actual costs exceed projected).

The actuarial status or financial adequacy of the Part B account is traditionally evaluated over the period for which the enrollee premium rates and level of general revenue financing have been established. The primary tests are that (1) the assets and income for years for which financing has been established should be sufficient to meet the projected benefits and associated administrative expenses incurred for that period; and (2) the assets should be sufficient to cover projected liabilities that have not yet been paid as of the end of the period. If these adequacy tests are not met, Part B can still continue to operate if the account remains at a level adequate to permit the payment of claims as presented. However, to protect against the possibility that costs will be higher than assumed, assets should be sufficient to include contingency levels that cover a reasonable degree of variation between actual and projected costs.

The traditional tests of asset adequacy described above have been augmented by a supplementary assessment of uncertainty using statistical methods, as shown in section IV.D of this report.

As noted above, the tests of financial adequacy for Part B rely on the incurred experience of the account, including a liability for the costs of services performed in a year but not yet paid. Table II.C12 shows the estimated transactions of the account on an incurred basis. The

incurred experience must be viewed as an estimate, even for historical years.[30]

Table II.C12.—Estimated Part B Income and Expenditures (Incurred Basis) for Financing Periods through December 31, 2004

[In millions]

	Income				Expenditures			
Financing period	Premium income	General revenue	Interest and other	Total	Benefit payments	Adminis-trative expenses	Total	Net operations in year
Historical data:								
12-month period ending June 30,								
1970	$936	$936	$12	$1,884	$1,928	$213	$2,141	-257
1975	1,887	2,396	105	4,388	3,957	438	4,395	-7
1980	2,823	6,627	421	9,871	9,840	645	10,485	-614
Calendar year								
1985	5,613	18,243	1,248	25,104	22,750	986	23,736	1,368
1990	11,320	33,035	1,558	45,913	42,578	1,541	44,119	1,794
1995	19,717	45,743	1,739	67,199	64,918	1,607	66,525	674
1996	18,763	58,068	1,885	78,716	68,762	1,807	70,569	8,147
1997	19,289	60,169	2,466	81,924	72,726	1,367	74,093	7,831
1998	19,421	59,357	2,711	81,489	77,239[1]	1,438	78,677	2,812
1999	20,479	63,806	2,841	87,126	81,506[1]	1,603	83,109	4,017
2000	20,555	65,898	3,450	89,903	89,757[1]	1,770	91,526	-1,623
2001	22,764	72,793	3,071	98,629	100,286[1]	2,008	102,294	-3,665
2002	25,066	78,338	2,792	106,196	112,223[1]	2,196	114,419	-8,223
2003	27,402	86,402	1,992	115,796	121,785[1]	2,318	124,103	-8,307
Intermediate estimates:								
2004	31,468	100,161	1,570	133,200	132,714	3,184	135,898	-2,698

[1]See footnote 7 of table II.C9.

The liability outstanding at any time, for the cost of services performed for which no payment has been made, is referred to as "benefits incurred but unpaid." Estimates of the amount of benefits incurred but unpaid as of the end of each financing period, and of the administrative expenses related to processing these benefits, appear in table II.C13. In some years, account assets have not been as large as liabilities. Nonetheless, the fund has remained positive, allowing claims to be paid.

[30]Part B experience is substantially more difficult to determine on an incurred basis than on a cash basis. Payment for some services is reported only on a cash basis, and the incurred experience must be inferred from the cash payment information. Moreover, for recent time periods, the tabulations of bills are incomplete due to normal processing delays.

Table II.C13.—Summary of Estimated Part B Assets and Liabilities as of the End of the Financing Period, for Periods through December 31, 2004

[Dollar amounts in millions]

	Balance in trust fund	General revenue due but unpaid	Total assets	Benefits incurred but unpaid	Administrative costs incurred but unpaid	Total liabilities	Excess of assets over liabilities	Ratio[1]
Historical data:								
As of June 30,								
1970	$57	$15	$72	$567	$0	$567	-495	-0.21
1975	1,424	67	1,491	1,257	14	1,271	220	0.04
1980	4,657	0	4,657	2,621	188	2,809	1,848	0.15
As of December 31,								
1985	10,924	0	10,924	3,142	-38	3,104	7,820	0.28
1990	15,482	0	15,482	4,060	20	4,080	11,402	0.24
1995	13,130	6,893[2]	20,023	4,282	-214	4,068	15,955	0.23
1996	28,332	0	28,332	4,446	-217	4,230	24,102	0.32
1997	36,131	0	36,131	4,416	-217	4,199	31,932	0.41
1998	46,212[3]	0	46,212[3]	5,531	-285	11,469[3]	34,743	0.42
1999	44,787	0	44,787	6,312	-285	6,028	38,760	0.42
2000	44,027	0	44,027	7,176	-285	6,891	37,136	0.36
2001	41,270	620	41,889	7,799	0	7,799	34,091	0.30
2002	34,301	0	34,301	9,053	0	9,053	25,248	0.20
2003	23,953	0	23,953	7,012	0	7,012	16,941	0.12
Intermediate estimates:								
2004	22,244	0	22,244	8,001	0	8,001	14,243	0.10

[1]Ratio of the excess of assets over liabilities to the following year's total incurred expenditures.

[2]This amount includes both the principal of $6,736 million and the accumulated interest through December 31, 1995 for the shortfall in the fiscal year 1995 appropriation for government contributions. Normally, this transfer would have been made on December 31, 1995 and, therefore, would have been reflected in the trust fund balance. However, due to absence of funding, the transfer of the principal and the appropriate interest was delayed until March 1, 1996.

[3]Section 708 of the Social Security Act modifies the provisions for the delivery of Social Security benefit checks when the regularly designated day falls on a Saturday, Sunday, or legal public holiday. Delivery of benefit checks normally due January 3, 1999 occurred on December 31, 1998. Consequently, the SMI premiums withheld from the checks ($1,512 million) and the general revenue matching contributions ($4,711 million) were added to the SMI trust fund on December 31, 1998 and were included in the liabilities.

The amount of assets minus liabilities can be compared with the estimated incurred expenditures for the following calendar year to form a relative measure of the Part B account's financial status. The last column in table II.C13 shows such ratios for past years and the estimated ratio at the end of 2003. Past studies have indicated that a ratio of roughly 15-20 percent is sufficient to protect against unforeseen contingencies, such as unusually large increases in Part B expenditures. At the end of 2003, the Part B reserve ratio was 12 percent, or below normal requirements.

Part B financing has been established through December 31, 2004. The financing for calendar year 2004 was designed with specific margins to maintain the excess of assets over liabilities as a percentage of incurred expenditures for the following year. However, after the 2004 rates were set, the Medicare modernization act (MMA)

was enacted. As noted previously, this legislation significantly increased Part B payments in 2004. Moreover, actual program expenditures for calendar year 2003 were slightly higher than expected, producing a higher projection base for estimating 2004 expenditures. The significant increase in expenditures due to the legislation, on top of the higher projection base, results in estimated 2004 incurred expenditures being higher than those expected when setting the financing. As a result, the calendar year 2004 incurred income is expected to be less than incurred expenditures by $2,698 million, as shown in table II.C12, and the excess of assets over liabilities is expected to decrease from $16,941 million at the end of December 2003 to $14,243 million at the end of December 2004, under the intermediate assumptions, as indicated in table II.C13. This excess as a percentage of incurred expenditures for the following year is expected to decrease from 12 percent as of December 31, 2003 to only 10 percent as of December 31, 2004. Thus, the higher expenditures resulting from the MMA are expected to reduce the net asset ratio further below the preferred range.

Since the financing rates are set prospectively, the actuarial status of the Part B account could be affected by variations between assumed cost increases and subsequent actual experiences. To test the status of the account under varying assumptions, a lower growth range projection and an upper growth range projection were prepared by varying the key assumptions through the period for which the financing has been set. These two alternative sets of assumptions provide a range of financial outcomes within which the actual experience of Part B might reasonably be expected to fall. The values for the lower and upper growth range assumptions were determined from a statistical analysis of the historical variation in the respective increase factors. Section IV.D of this report describes the statistical methodology in more detail and also extends the analysis through 2013.

This sensitivity analysis differs from the low cost and high cost projections discussed previously in this section in that this analysis examines the variation in the projection factors in the period for which the financing has been established (2004 for this report). The low cost and high cost projections, on the other hand, illustrate the financial impact of slower or faster growth trends throughout the short-range projection period.

Table II.C14 indicates that, under the lower growth range scenario, account assets would exceed liabilities at the end of December 2004

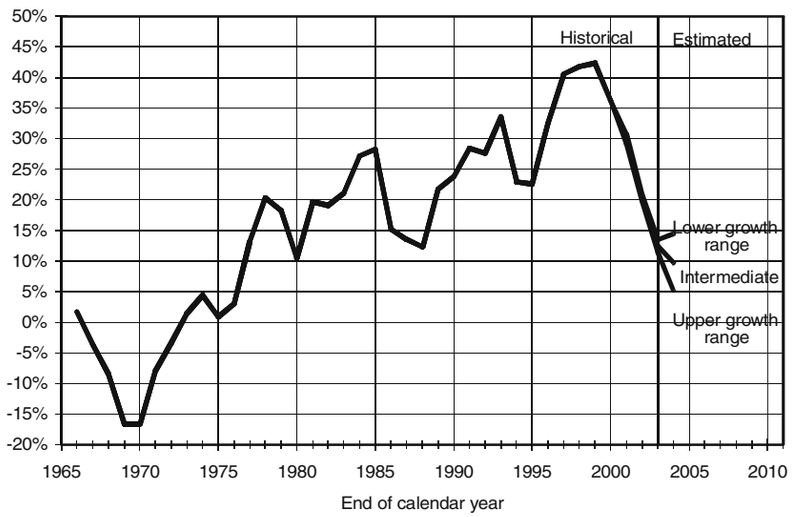
by a margin equivalent to 14.5 percent of the following year's incurred expenditures. Under the upper growth range scenario, account assets would still exceed liabilities by the end of December 2004, dropping to a level of 5.2 percent of the following year's incurred expenditures. Therefore, under either scenario, assets would be sufficient to cover outstanding liabilities. However, if the higher growth range scenario were actually to materialize, then subsequent financing rates would have to be adjusted upward to an even greater degree than already anticipated to increase the excess of assets over liabilities in order to maintain an appropriate contingency level in the account. Figure II.C4 shows this ratio for historical years and for projected years under the intermediate scenario, as well as under the lower growth range (optimistic) and the upper growth range (pessimistic) cost sensitivity scenarios.

Table II.C14.—Actuarial Status of the Part B Account in the SMI Trust Fund under Three Cost Sensitivity Scenarios for Financing Periods through December 31, 2004

As of December 31,	2002	2003	2004
Intermediate scenario:			
Actuarial status (in millions)			
Assets	$34,301	$23,953	$22,244
Liabilities	9,053	7,012	8,001
Assets less liabilities	25,248	16,941	14,243
Ratio (in percent)[1]	20.3	12.5	9.8
Low range scenario:			
Actuarial status (in millions)			
Assets	$34,301	$23,953	$26,834
Liabilities	9,053	6,689	7,496
Assets less liabilities	25,248	17,264	19,338
Ratio (in percent)[1]	20.9	13.5	14.5
Upper range scenario:			
Actuarial status (in millions)			
Assets	$34,301	$23,953	$16,917
Liabilities	9,053	7,309	8,588
Assets less liabilities	25,248	16,644	8,329
Ratio (in percent)[1]	19.9	11.5	5.2

[1]Ratio of assets less liabilities at the end of the year to the total incurred expenditures during the following year, expressed as a percent.

Figure II.C4.—Actuarial Status of the SMI Trust Fund through Calendar Year 2003



Note: The actuarial status of the SMI trust fund is measured by the ratio of (1) assets minus liabilities at the end of the year to (2) the following year's incurred expenditures.

Based on the tests described above, the Trustees conclude that while the financing established for the Part B account for calendar year 2004 is inadequate to cover 2004 expected expenditures (mainly due to the subsequent enactment of the Medicare modernization act), the financial status of the Part B account in 2004 is still minimally satisfactory. However, the Part B financing rates for 2005 will have to be increased sharply to return to an adequate contingency reserve.

c. 75-Year Actuarial Estimates (2004-2078)

In section II.C2b, the expected operations of the Part B account over the next 10 years were presented. In this section, the long-range expenditures of the account are examined under the intermediate assumptions. Because of its automatic financing provisions, the Part B account is expected to be adequately financed into the indefinite future, so a long-range analysis using high cost and low cost assumptions is not conducted.

Table II.C15 shows the estimated Part B incurred expenditures under the intermediate assumptions expressed as a percentage of GDP, for

selected years over the calendar-year period 2003-2078.[31] The 75-year projection period fully allows for the presentation of future trends that may reasonably be expected to occur, such as the impact of the large increase in enrollees after 2010 when the baby boom generation will reach eligibility age and begin to receive benefits.

Table II.C15.—Part B Expenditures (Incurred Basis) as a Percentage of the Gross Domestic Product[1]

Calendar year	Part B expenditures as a percentage of GDP
2003	1.13
2004	1.17
2005	1.20
2006	1.22
2007	1.24
2008	1.25
2009	1.26
2010	1.27
2011	1.28
2012	1.30
2013	1.34
2015	1.47
2020	1.79
2025	2.14
2030	2.47
2035	2.74
2040	2.96
2045	3.14
2050	3.33
2055	3.55
2060	3.81
2065	4.09
2070	4.37
2075	4.65
2080	4.82

[1]Expenditures are the sum of benefit payments and administrative expenses.

Increases in Part B costs per enrollee during the initial 25-year period are assumed to decline gradually in the last 12 years of that period to the same growth rate as GDP per capita plus 1 percentage point, and then to continue to grow at GDP per capita plus 1 percentage point in the last 50 years. Based on these assumptions, incurred Part B expenditures as a percentage of GDP would increase rapidly from 1.13 percent in 2003 to 4.65 percent in 2075.

This report focuses on the 75-year period from 2004 to 2078 for the evaluation of the long-run financial status of Part B on an open-group basis (i.e., including past, current, and future participants). Table II.C16 shows that because of the automatic financing of Part B, there is no unfunded obligation.

[31]These estimated incurred expenditures are for benefit payments and administrative expenses combined, unlike the values in table II.C10, which express only benefit payments on a cash basis as a percentage of GDP.

In section II.B of this report, an extended projection of HI revenues and expenditures was presented, beyond the normal 75-year projection period, to highlight the continuing financial imbalance over an infinite horizon.

Tables II.C16 and II.C17 presents corresponding estimates for Part B that extend to the infinite horizon. The extension assumes no change to current law and the demographic and economic trends used for the 75-year projection continue indefinitely except that average Part B expenditures per beneficiary are assumed to increase at the same rate as the GDP per capita beginning in 2079.

Table II.C16 shows an estimated present value of Part B expenditures through the infinite horizon of $31.1 trillion, of which $15.3 trillion would occur during the first 75 years. Because such amounts, calculated over extremely long time horizons, can be very difficult to interpret, they are also shown as percentages of the present value of future GDP. So expressed, the corresponding figures are 3.4 percent and 2.6 percent of GDP, respectively. The table also indicates that approximately 25 percent of expenditures for each time period would be financed through beneficiary premiums, with the remaining 75 percent paid by general revenues, as mandated by current law.

Table II.C16.—Unfunded Part B Obligations from Program Inception through the Infinite Horizon

[Present values as of January 1, 2004; dollar amounts in trillions]

	Present value	As a percentage of GDP
Unfunded obligations through the infinite horizon[1]	$0.0	0.0%
Expenditures	$31.1	3.4%
Income	$31.1	3.4%
Beneficiary premiums	$7.9	0.9%
General revenue contributions	$23.2	2.5%
Unfunded obligations from program inception through 2078[1]	$0.0	0.0%
Expenditures	$15.3	2.6%
Income	$15.3	2.6%
Beneficiary premiums	$3.9	0.7%
General revenue contributions	$11.4	2.0%

[1]Present value of future expenditures less income, reduced by the amount of trust fund assets at the beginning of the period.

Notes: 1. The present values of GDP for 2004-2078 and 2004 through the infinite horizon are $584.9 trillion and $911.9 trillion, respectively.
2. Totals do not necessarily equal the sums of rounded components.

Table II.C17 shows corresponding projections separately for current versus future beneficiaries. As indicated, about 39 percent of the total, infinite-horizon cost is associated with current beneficiaries,

with the remaining 61 percent attributable to beneficiaries becoming eligible for Part B benefits after January 1, 2004.

Table II.C17.—Unfunded Part B Obligations for Current and Future Program Participants through the Infinite Horizon

[Present values as of January 1, 2004; dollar amounts in trillions]

	Present value	As a percentage of GDP
Future expenditures less income for current participants	$0.2	0.0%
Expenditures	$12.1	1.3%
Income	$11.8	1.3%
Beneficiary premiums	$3.0	0.3%
General revenue contributions	$8.8	1.0%
Less current trust fund (income minus expenditures to date for past and current participants)	$0.0	0.0%
Equals unfunded obligations for past and current participants[1]	$0.2	0.0%
Expenditures	$12.1	1.3%
Income	$11.8	1.3%
Beneficiary premiums	$3.0	0.3%
General revenue contributions	$8.8	1.0%
Plus expenditures less income for future participants for the infinite horizon	-$0.2	0.0%
Expenditures	$19.0	2.1%
Income	$19.3	2.1%
Beneficiary premiums	$4.9	0.5%
General revenue contributions	$14.4	1.6%
Equals unfunded obligations for all participants for the infinite future	$0.0	0.0%
Expenditures	$31.1	3.4%
Income	$31.1	3.4%
Beneficiary premiums	$7.9	0.9%
General revenue contributions	$23.2	2.5%

[1]This concept is also referred to as the closed-group unfunded obligation.

Notes: 1. The estimated present value of GDP for 2004 through the infinite horizon is $911.9 trillion.
2. Totals do not necessarily equal the sums of rounded components.

3. Part D Account

The Part D accounts were established within the SMI trust fund by the Medicare modernization act, enacted on December 8, 2003. This legislation established, within SMI, two accounts related to prescription drug benefits: the Medicare Prescription Drug Account and the Transitional Assistance Account. The Medicare Prescription Drug Account will be used in conjunction with the broad, voluntary prescription drug benefits that will commence in 2006. The Transitional Assistance Account will be used to provide transitional assistance benefits, beginning in 2004 and extending through 2005 and into 2006, for beneficiaries not yet enrolled for the prescription drug benefit. Any assets remaining in the transitional account after 2006 will be credited to the Medicare Prescription Drug Account. For simplicity, in this report both accounts are combined and referred to as the "Part D account."

The nature of the new Medicare prescription drug benefit is significantly different from the usual HI and SMI Part B fee-for-service benefits. In particular, beneficiaries will obtain the drug benefit by voluntarily purchasing insurance policies from stand-alone companies or through private Medicare Advantage health plans. The premiums established by these plans will be heavily subsidized by Medicare. In addition, Medicare will pay some or all of the remaining beneficiary drug premiums and cost-sharing liabilities for low-income beneficiaries. Medicare will also pay special subsidies on behalf of beneficiaries retaining primary drug coverage through qualifying employer-sponsored retiree health plans. Collectively, the various Medicare drug subsidies will be financed primarily by general revenues. In addition, a declining portion of the subsidy costs associated with beneficiaries who also qualify for full Medicaid benefits will be financed through special payments from State governments. Beneficiaries may have their drug insurance premiums withheld from their Social Security benefits, if they wish, and then forwarded to the drug plans on their behalf

a. Financial Operations in Fiscal Year 2003

Both of the drug accounts are new, established after fiscal year 2003. Thus there were no transactions in these accounts during fiscal year 2003.

b. 10-Year Actuarial Estimates (2004-2013)

Future operations of the Part D accounts are projected using the Trustees' economic and demographic assumptions, as detailed in the OASDI Trustees Report, as well as other assumptions unique to Part D. Section III.B2 presents an explanation of the effects of the Trustees' intermediate assumptions, and of the other assumptions unique to Part D, on the estimates in this report.

Generally, the income to the Medicare Prescription Drug Account will include the beneficiary premiums described above and transfers from the general fund of the Treasury that will be established annually to match each year's anticipated incurred benefit costs and other expenditures. The transfer from the Treasury will be based on the calculated direct subsidy rate and the anticipated levels of reinsurance payments, employer subsidy, low-income subsidy, net risk payments, administrative expenses, and an amount necessary to maintain an appropriate contingency margin. The premiums and direct subsidy rate will be calculated based on the national average bid amounts and will be defined prior to the annual appropriation,

with the average premium amounting to 25.5 percent of the expected total plan costs for basic coverage. The level of enrollment and the other subsidy levels will be subject to a degree of uncertainty, resulting in the need for the contingency margin.

Expenditures from the account will include the beneficiary premiums withheld from their Social Security or other Federal payments and transferred to the private drug plans, the direct subsidy payments, reinsurance payments, employer subsidy amounts, low-income subsidy payments, risk payments, fallback payments, and administrative expenses.

Table II.C18 shows the estimated operations of the Part D accounts under the intermediate assumptions on a calendar-year basis through 2013.

Table II.C18.—Operations of the Part D Account in the SMI Trust Fund (Cash Basis) during Calendar Years 2004-2013

[In billions]

	Income					Expenditures			Account	
Calendar year	Premium income[1]	General revenue[2]	Transfers from States[3]	Interest and other	Total	Payments to plans[4]	Administrative expense[5]	Total	Net change	Balance at end of year
Intermediate estimates:										
2004	—	$3.0	—	—	$3.0	$2.5	$0.5	$3.0	—	—
2005	—	12.0	—	—	12.0	2.8	0.8	3.5	$8.5	$8.5
2006	$13.5	62.8	$9.0	$0.5	85.8	84.3	0.7	85.0	0.8	9.3
2007	15.0	68.6	9.8	0.6	93.9	92.3	0.8	93.0	0.9	10.2
2008	16.4	75.2	10.6	0.6	102.8	101.1	0.8	101.9	0.9	11.1
2009	18.0	82.1	11.4	0.7	112.2	110.4	0.8	111.2	1.0	12.1
2010	19.5	89.5	12.2	0.8	122.0	120.1	0.9	120.9	1.0	13.1
2011	21.2	97.7	13.1	0.8	132.8	130.5	0.9	131.4	1.4	14.6
2012	23.3	109.0	14.0	0.9	147.2	144.7	0.9	145.6	1.6	16.2
2013	26.0	121.3	15.2	1.0	163.5	160.8	1.0	161.8	1.8	17.9

[1]Premiums include only amounts withheld from the Social Security benefit checks or other Federal payments.

[2]Includes all government transfers including amounts for the general subsidy, reinsurance, employer drug subsidy, low-income subsidy, administrative expenses, risk sharing, and State expenses for making low-income eligibility determinations. Includes amounts for the transitional assistance benefits of $2.7, $2.7, and $0.1 billion in 2004-2006, respectively. Also includes $8.5 billion in 2005 to establish an adequate contingency reserve.

[3]With the availability of Part D drug coverage and low-income subsidies in 2006, Medicaid will no longer be the primary payer for full-benefit dual eligibles. States are subject to a contribution requirement and must continue to pay the Part D account in the SMI trust fund a portion of their estimated forgone drug costs for this population. Starting in 2006, States must pay 90 percent of the estimated costs, with this percentage phasing down over a 10-year period to 75 percent in 2015.

[4]Also includes subsidies to employer-sponsored retiree prescription drug plans, payments to States for making low-income eligibility determinations, and Part D drug premiums collected from beneficiaries and transferred to Medicare Advantage plans and private drug plans. Includes amounts for the transitional assistance benefits of $2.5, $2.7, and $0.1 billion in 2004-2006, respectively.

[5]Includes expenses of administering the transitional assistance benefits of $146 and $45 million in 2004 and 2005, respectively.

Note: Totals do not necessarily equal the sums of rounded components.

In table II.C19, prescription drug payment amounts are considered in the aggregate, on a per capita basis, and relative to the Gross Domestic Product (GDP). Rates of growth are shown for the next 10 years, based on the intermediate set of assumptions.

Table II.C19.—Growth in Part D Benefits (Cash Basis) through December 31, 2013

Calendar year	Aggregate benefits [millions]	Percent change	Per capita benefits	Percent change	Part D benefits as a percentage of GDP
Intermediate estimates:					
2004	$2,517	—	$541	—	—
2005	2,790	—	590	—	—
2006	84,298	—	2,069	—	0.7
2007	92,265	9.5	2,225	7.5	0.7
2008	101,119	9.6	2,391	7.5	0.7
2009	110,371	9.2	2,557	7.0	0.7
2010	120,083	8.8	2,725	6.6	0.8
2011	130,477	8.7	2,892	6.1	0.8
2012	144,699	10.9	3,120	7.9	0.8
2013	160,801	11.1	3,367	7.9	0.9

In addition to the variability in economic, demographic, and health care usage and cost experience that underlies the cost projections prepared for other parts of Medicare, the intermediate projections for Part D have an added uncertainty in that they were prepared for a new benefit that has no current experience. As such, there is a very substantial level of uncertainty surrounding these cost projections. High and low cost estimates have also been prepared using two alternative sets of assumptions that reflect variation from the intermediate assumptions in both the projection and the base cost calculation. The estimated operations of the Part D account for all three alternatives are summarized in table II.C20. The assumptions underlying the intermediate assumptions are presented in substantial detail in section III.B2. The assumptions used in preparing estimates under the low cost and high cost alternatives are also summarized in that section.

Table II.C20.—Estimated Operations of the Part D Account in the SMI Trust Fund during Calendar Years 2003-2013, under Alternative Sets of Assumptions

[In billions]

Calendar year	Premiums from enrollees	Other income[1]	Total income	Total expenditures	Balance in account at end of year
Intermediate:					
2003	—	—	—	—	—
2004	—	$3.0	$3.0	$3.0	—
2005	—	12.0	12.0	3.5	$8.5
2006	$13.5	72.3	85.8	85.0	9.3
2007	15.0	78.9	93.9	93.0	10.2
2008	16.4	86.4	102.8	101.9	11.1
2009	18.0	94.2	112.2	111.2	12.1
2010	19.5	102.5	122.0	120.9	13.1
2011	21.2	111.6	132.8	131.4	14.6
2012	23.3	123.9	147.2	145.6	16.2
2013	26.0	137.6	163.5	161.8	17.9
Low cost:					
2003	—	—	—	—	—
2004	—	$2.7	$2.7	$2.7	—
2005	—	10.0	10.0	3.3	$6.7
2006	$11.2	56.2	67.4	66.9	7.2
2007	11.8	60.3	72.2	71.7	7.7
2008	12.7	64.8	77.5	77.0	8.2
2009	13.6	69.3	82.9	82.4	8.8
2010	14.5	73.8	88.3	87.8	9.3
2011	15.5	78.8	94.2	93.4	10.2
2012	16.7	85.7	102.4	101.5	11.0
2013	18.2	92.5	110.7	110.5	11.3
High cost:					
2003	—	—	—	—	—
2004	—	$3.3	$3.3	$3.3	—
2005	—	14.2	14.2	3.8	$10.4
2006	$15.5	89.7	105.2	103.9	11.7
2007	17.5	100.5	118.0	116.6	13.1
2008	19.7	113.3	133.0	131.4	14.8
2009	22.1	127.2	149.3	147.6	16.5
2010	24.7	142.6	167.4	165.4	18.5
2011	27.7	159.9	187.6	185.1	21.0
2012	31.2	181.2	212.3	209.5	23.8
2013	35.3	206.1	241.4	237.6	27.5

[1]Other income contains Federal and State government contributions and interest.

Note: Totals do not necessarily equal the sums of rounded components.

The three sets of assumptions were selected in order to indicate the general range in which the cost might reasonably be expected to fall. The low and high cost alternatives provide for a wide range of possible experience. Actual experience is likely to fall within the range, but no assurance can be given that this will be the case, especially since the Part D benefits are a new, voluntary program with no actual experience.

Part D expenditures are estimated to grow significantly faster than GDP under the intermediate, low, and high cost assumptions.

The alternative projections shown in table II.C20 illustrate two important aspects of the financial operations of the Part D account:

- Despite the widely differing assumptions underlying the three alternatives, the balance between Part D income and expenditures remains relatively stable. Under the low cost assumptions, for example, by 2013 both income and expenditures would be around 30 percent lower than projected under the intermediate assumptions. The corresponding amounts under the high cost assumptions would be around 50 percent higher than the intermediate estimates.

  This result occurs because the premiums and general revenue contributions underlying the Part D financing will be reestablished annually. Thus, Part D income will automatically track Part D expenditures fairly closely, regardless of the specific economic and other conditions.

- As a result of the close matching of income and expenditures described above, projected account assets show stable patterns of change under all three sets of assumptions. The annual adjustment of premiums and general revenue contributions permits the maintenance of a Part D account balance that, while relatively small, is sufficient to guard against chance fluctuations.

Adequacy of Part D Financing Established for Calendar Year 2004

The concept of financial adequacy, as it applies to Part D, is closely related to the concept as it applies to many private group insurance plans. Part D is somewhat similar to yearly renewable term insurance, with financing from premium income paid by the enrollees, from income contributed from general revenue by the Federal Government, and from the special State payments. Consequently, the income during a 12-month period for which financing is being established should be sufficient to cover the costs of services expected to be rendered during that period (including associated administrative costs), even though payment for some of these services will not be made until after the period closes. The portion of income required to cover those benefits not paid until after the end of the year is added to the account. Thus, the assets that are in the account at any time should be no less than the costs of the benefits and the administrative expenses incurred but not yet paid.

Since the income per enrollee (premium plus government contribution) is established prospectively each year, it is subject to

projection error. Additionally, legislation enacted after the financing has been established, but effective for the period for which financing has been set, may affect costs. Account assets, therefore, should be maintained at a level that is adequate to cover not only the value of incurred but unpaid expenses but also a reasonable degree of variation between actual and projected costs (in case actual costs exceed projected).

The actuarial status or financial adequacy of the Part D account will be evaluated over the period for which the enrollee premium rates and level of general revenue financing have been established. The primary tests are that (1) the assets and income for years for which financing has been established should be sufficient to meet the projected benefits and associated administrative expenses incurred for that period; and (2) the assets should be sufficient to cover projected liabilities that have not yet been paid as of the end of the period. If these adequacy tests are not met, Part D can still continue to operate if the account remains at a level adequate to permit the payment of claims as presented. However, to protect against the possibility that costs will be higher than assumed, assets should be sufficient to include contingency levels that cover a reasonable degree of variation between actual and projected costs.

As noted above, the tests of financial adequacy for Part D rely on the incurred experience of the account, including a liability for the costs of services performed in a year but not yet paid. As these amounts are zero for 2003 and the nominal 2004 transitional assistance payments are expected to be funded on an as-needed basis, the Trustees conclude that the financial status of the Part D accounts is satisfactory. If other procedures are adopted, the evaluation of financial adequacy will need to correspond.

c. 75-Year Actuarial Estimates (2004-2078)

In section II.C3b, the expected operations of the Part D accounts over the next 10 years were presented. In this section, the long-range expenditures of the accounts are examined under the intermediate assumptions. Because of their automatic financing provisions, the Part D accounts are expected to be adequately financed into the indefinite future, so a long-range analysis using high cost and low cost assumptions is not conducted.

Table II.C21 shows the estimated Part D incurred expenditures under the intermediate assumptions expressed as a percentage of

GDP, for selected years over the calendar-year period 2004-2078.[32] The 75-year projection period fully allows for the presentation of future trends that may reasonably be expected to occur, such as the impact of the large increase in enrollees after 2010 when the baby boom generation will reach eligibility age and begin to receive benefits.

Table II.C21.—Part D Expenditures (Incurred Basis) as a Percentage of the Gross Domestic Product[1]

Calendar year	Part D expenditures as a percentage of GDP
2004	0.02%
2005	0.02
2006	0.67
2007	0.70
2008	0.73
2009	0.75
2010	0.78
2011	0.81
2012	0.85
2013	0.91
2015	1.01
2020	1.31
2025	1.61
2030	1.84
2035	2.01
2040	2.14
2045	2.27
2050	2.41
2055	2.56
2060	2.74
2065	2.92
2070	3.11
2075	3.30
2080	3.42

[1]Expenditures are the sum of benefit payments and administrative expenses.

Increases in Part D costs per enrollee during the initial 25-year period are assumed to decline gradually to the same growth rate as GDP per capita plus 1 percentage point, and then to continue to grow at GDP per capita plus 1 percentage point in the last 50 years. Based on these assumptions, incurred Part D expenditures as a percentage of GDP would increase rapidly from 0.67 percent in 2006 to 3.30 percent in 2075. As actual experience becomes available in 2006 and later, both the starting cost of the drug benefit and its growth over time could prove significantly different from these projections.

This report focuses on the 75-year period from 2004 to 2078 for the evaluation of the long-run financial status of Part D on an open-group basis (i.e., including past, current, and future participants).

[32]These estimated incurred expenditures are for benefit payments and administrative expenses combined, unlike the values in table II.C19, which express only benefit payments on a cash basis as a percentage of GDP.

Actuarial Analysis

Table II.C22 shows that because of the automatic financing of Part D, there is no unfunded obligation.

In section II.B of this report, an extended projection of HI revenues and expenditures was presented, beyond the normal 75-year projection period, to highlight the continuing financial imbalance over an infinite horizon.

Tables II.C22 and II.C23 presents corresponding estimates for Part D that extend to the infinite horizon. The extension assumes no change to current law and the demographic and economic trends used for the 75-year projection continue indefinitely except that average Part D expenditures per beneficiary are assumed to increase at the same rate as the GDP per capita beginning in 2079.

Table II.C22 shows an estimated present value of Part D expenditures through the infinite horizon of $21.9 trillion, of which $10.8 trillion would occur during the first 75 years. Because such amounts, calculated over extremely long time horizons, can be very difficult to interpret, they are also shown as percentages of the present value of future GDP. So expressed, the corresponding figures are 2.4 percent and 1.8 percent of GDP, respectively. The table also indicates that, for each time period, approximately 16 percent of expenditures would be financed through beneficiary premiums and 8 percent through State transfers, with the remaining 75 percent paid by general revenues, as mandated by current law.

Table II.C22.—Unfunded Part D Obligations From Program Inception Through the Infinite Horizon

[Present values as of January 1, 2004; dollar amounts in trillions]

	Present value	As a percentage of GDP
Unfunded obligations through the infinite horizon[1]	$0.0	0.0%
Expenditures	$21.9	2.4%
Income	$21.9	2.4%
Beneficiary premiums	$3.6	0.4%
State transfers	$1.8	0.2%
General revenue contributions	$16.6	1.8%
Unfunded obligations from program inception through 2078[1]	$0.0	0.0%
Expenditures	$10.8	1.8%
Income	$10.8	1.8%
Beneficiary premiums	$1.8	0.3%
State transfers	$0.9	0.2%
General revenue contributions	$8.1	1.4%

[1]Present value of future expenditures less income, reduced by the amount of trust fund assets at the beginning of the period.
[2]Present value of future expenditures less income.

Notes: 1. The present values of GDP for 2004-2078 and 2004 through the infinite horizon are $584.9 trillion and $911.9 trillion, respectively.
2. Totals do not necessarily equal the sums of rounded components.

Table II.C23 shows corresponding projections separately for current versus future beneficiaries. As indicated, about 38 percent of the total, infinite-horizon cost is associated with current beneficiaries, with the remaining 62 percent attributable to beneficiaries becoming eligible for Part D benefits after January 1, 2004.

Table II.C23.—Unfunded Part D Obligations for Current and Future Program Participants through the Infinite Horizon

[Present values as of January 1, 2004; dollar amounts in trillions]

	Present value	As a percentage of GDP
Future expenditures less income for current participants	$0.1	0.0%
Expenditures	$8.3	0.9%
Income	$8.3	0.9%
Beneficiary premiums	$1.4	0.1%
State transfers	$0.7	0.1%
General revenue contributions	$6.2	0.7%
Less current trust fund (income minus expenditures to date for past and current participants)	$0.0	0.0%
Equals unfunded obligations for past and current participants[1]	$0.1	0.0%
Expenditures	$8.3	0.9%
Income	$8.3	0.9%
Beneficiary premiums	$1.4	0.1%
State transfers	$0.7	0.1%
General revenue contributions	$6.2	0.7%
Plus expenditures less income for future participants for the infinite horizon	-$0.1	0.0%
Expenditures	$13.6	1.5%
Income	$13.7	1.5%
Beneficiary premiums	$2.2	0.2%
State transfers	$1.1	0.1%
General revenue contributions	$10.3	1.1%
Equals unfunded obligations for all participants for the infinite future	$0.0	0.0%
Expenditures	$21.9	2.4%
Income	$21.9	2.4%
Beneficiary premiums	$3.6	0.4%
State transters	$1.8	0.2%
General revenue contributions	$16.6	1.8%

[1]This concept is also referred to as the closed-group unfunded obligation.

Notes: 1. The estimated present value of GDP for 2004 through the infinite horizon is $911.9 trillion.
2. Totals do not necessarily equal the sums of rounded components.

III. ACTUARIAL METHODOLOGY AND PRINCIPAL ASSUMPTIONS FOR COST ESTIMATES FOR THE HOSPITAL INSURANCE AND SUPPLEMENTARY MEDICAL INSURANCE TRUST FUNDS

This section describes the basic methodology and assumptions used in the estimates for the HI and SMI trust funds under the intermediate assumptions. In addition, projections of HI and SMI costs under two alternative sets of assumptions are presented.

The economic and demographic assumptions underlying the projections of HI and SMI costs shown in this report are consistent with those in the 2004 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. These assumptions are described in more detail in that report.

A. HOSPITAL INSURANCE

1. Cost Projection Methodology

The principal steps involved in projecting the future HI costs are (1) establishing the present cost of services provided to beneficiaries, by type of service, to serve as a projection base; (2) projecting increases in HI payments for inpatient hospital services; (3) projecting increases in HI payments for skilled nursing, home health, and hospice services covered; (4) projecting increases in payments to managed care plans; and (5) projecting increases in administrative costs. The major emphasis is directed toward expenditures for fee-for-service inpatient hospital services, which accounted for approximately 71 percent of total benefits in 2003.

a. Projection Base

To establish a suitable base from which to project the future HI costs, the incurred payments for services provided must be reconstructed for the most recent period for which a reliable determination can be made. Therefore, payments to providers must be attributed to dates of service, rather than to payment dates; in addition, the nonrecurring effects of any changes in regulations, legislation, or administration, and of any items affecting only the timing and flow of payments to providers, must be eliminated. As a result, the rates of increase in the HI incurred costs differ from the increases in cash expenditures shown in the tables in section II.B.

For those expenses still reimbursed on a reasonable-cost basis, the costs for covered services are determined on the basis of provider cost

reports. Due to the time required to obtain cost reports from providers, to verify these reports, and to perform audits (where appropriate), final settlements have lagged behind the original costs by as much as several years for some providers. Additional complications are posed by changes in legislation or regulation, or in administrative or reimbursement policy, the effects of which cannot always be determined precisely.

The process of allocating the various types of HI payments made to the proper incurred period—using incomplete data and estimates of the impact of administrative actions—presents difficult problems, and the solutions to these problems can be only approximate. Under the circumstances, the best that can be expected is that the actual HI incurred cost for a recent period can be estimated within a few percent. This process increases the projection error directly, by incorporating any error in estimating the base year into all future years.

b. Fee-for-Service Payments for Inpatient Hospital Costs

Almost all inpatient hospital services covered by HI are paid under a prospective payment system. The law stipulates that the annual increase in the payment rate for each admission will be related to a hospital input price index (also known as the hospital market basket), which measures the increase in prices for goods and services purchased by hospitals for use in providing care to hospital inpatients. For fiscal year 2004, the prospective payment rates have already been determined. For fiscal years 2005 and later, current statute mandates that the annual increase in the payment rate per admission equal the annual increase in the hospital input price index for those hospitals submitting required quality measure data. For this report, we assume all hospitals will submit these data.

Increases in aggregate payments for inpatient hospital care covered under HI can be analyzed in five broad categories, all of which are presented in table III.A1:

(1) Labor factors—the increase in the hospital input price index that is attributable to increases in hospital workers' hourly earnings (including fringe benefits);

(2) Non-labor factors—the increase in the hospital input price index that is attributable to factors other than hospital workers' hourly earnings, such as the costs of energy, food, and supplies;

(3) Unit input intensity allowance—the amount added to or subtracted from the input price index (generally as a result of legislation) to yield the prospective payment update factor;

(4) Volume of services—the increase in total output of units of service (as measured by covered HI hospital admissions); and

(5) Other sources—a residual category, reflecting all other factors affecting hospital cost increases (such as intensity increases).

Table III.A1 shows the estimated historical values of these principal components, as well as the projected trends used in the estimates. Unless otherwise indicated, the following discussions apply to projections under the intermediate assumptions.

Table III.A1.—Components of Historical and Projected Increases in HI Inpatient Hospital Payments[1]

	Labor			Non-labor					Units of service				
Calendar year	Average hourly earnings	Hospital hourly earnings differential	Hospital hourly earnings	CPI	Hospital price differential	Non-labor hospital prices	Input price index	Unit input intensity allowance[2]	HI enrollment	Managed care shift effect	Admission incidence	Other sources	HI inpatient hospital payments
Historical data:													
1994	1.6%	1.3%	2.9%	2.5%	-0.4%	2.1%	2.6%	-0.6%	1.8%	-1.0%	2.4%	1.7%	7.1%
1995	3.2	-0.8	2.4	2.9	0.5	3.4	2.8	-0.7	1.7	-2.0	2.4	0.5	4.7
1996	4.9	-2.4	2.4	2.9	-1.1	1.8	2.2	-0.5	1.4	-2.7	2.6	4.4	7.5
1997	4.2	-2.3	1.8	2.3	-0.8	1.5	1.7	-0.5	1.1	-3.2	2.3	-0.3	0.9
1998	5.3	-2.6	2.6	1.3	2.5	3.8	3.1	-2.6	1.0	-3.1	0.4	0.3	-1.0
1999	4.8	-1.7	3.0	2.2	-0.1	2.1	2.7	-2.2	0.8	-1.8	1.5	1.5	2.5
2000	6.4	-2.4	3.8	3.5	-0.5	3.0	3.5	-2.2	1.3	0.4	-0.1	-1.3	1.6
2001	3.5	1.7	5.3	2.7	0.3	3.0	4.4	-1.0	1.0	2.3	1.2	1.4	9.7
2002	2.7	2.2	5.0	1.4	0.1	1.5	3.7	-1.1	1.1	2.1	-0.2	2.7	8.6
2003	3.2	0.9	4.1	2.3	1.3	3.6	3.9	-0.4	1.2	0.8	0.3	0.2	6.1
Intermediate estimates:													
2004	3.3	0.5	3.8	1.2	1.8	3.0	3.5	0.0	2.0	0.1	0.1	1.8	7.7
2005	3.9	0.2	4.1	1.5	0.5	2.0	3.3	0.0	1.5	-1.6	0.9	1.4	5.6
2006	3.8	0.2	4.0	2.0	0.4	2.4	3.4	0.0	1.6	-11.0	0.2	0.8	-5.5
2007	3.9	0.2	4.1	2.4	0.3	2.7	3.6	0.0	1.8	-4.6	-0.1	0.6	1.2
2008	4.1	0.1	4.2	2.7	0.2	2.9	3.7	0.0	2.0	-1.4	-0.3	0.8	4.9
2009	4.1	0.1	4.2	2.8	0.1	2.9	3.7	0.0	2.1	-2.4	-0.3	0.7	3.8
2010	4.1	0.1	4.2	2.8	0.0	2.8	3.7	0.0	2.2	-0.2	-0.4	0.7	6.1
2015	3.9	0.0	3.9	2.8	0.0	2.8	3.5	0.0	2.9	0.3	-0.4	0.8	7.3
2020	3.9	0.0	3.9	2.8	0.0	2.8	3.5	0.0	3.1	0.3	-0.1	0.8	7.8
2025	3.9	0.0	3.9	2.8	0.0	2.8	3.6	0.0	2.7	0.2	0.2	0.9	7.7

[1]Percent increase in year indicated over previous year, on an incurred basis.
[2]Reflects the allowances provided for in the prospective payment update factors.

Note: Historical and projected data reflect the hospital input price index, which was recalibrated to a 1992 base year in 1997.

Increases in hospital workers' hourly earnings can be analyzed and projected in terms of (1) the assumed increases in hourly earnings in employment in the general economy, and (2) the difference between increases in hourly earnings in the general economy and the hospital hourly earnings used in the hospital input price index. Since HI began, the differential between hospital workers' hourly earnings and hourly earnings in the general economy has fluctuated widely. This differential has averaged about –0.6 percent since 1994. Over the short term, this differential is assumed to gradually decrease, leveling off to zero for most of the projection period.

Non-labor cost increases can similarly be analyzed in terms of a known, economy-wide price measure (the Consumer Price Index, or CPI) and a differential between the CPI and hospital-specific prices. This differential reflects price increases for non-labor goods and services that are purchased by hospitals and that do not parallel increases in the CPI. Although the price differential has fluctuated erratically in the past, it has averaged about 0.2 percent during 1994-2003. Over the short term, the hospital price differential is also assumed to gradually decrease, leveling off to zero for most of the projection period.

The final input price index is calculated as a weighted average of the labor and non-labor factors described above. The weights reflect the relative use of each factor by hospitals (currently about 65 percent labor and 35 percent non-labor).

The unit input intensity allowance is generally a downward adjustment provided for by law in the prospective payment update factor; that is, the unit input intensity allowance is the amount subtracted from the input price index to yield the update factor.[33] Beginning in fiscal year 2004, the law provides that future increases in payments to prospective payment system hospitals for covered admissions will equal the increase in the hospital input price index for those hospitals that submit the required quality measure data. For other hospitals, the increase will be slightly smaller. For this report, we assume that all hospitals will submit these data. Thus, the unit input intensity allowance, as indicated in table III.A1, is assumed to equal zero for the first 25-year projection period.

[33]It should be noted that the update factors are generally prescribed on a fiscal-year basis, while table III.A1 is on a calendar-year basis. Calculations have therefore been performed to estimate the unit input intensity allowance on a calendar-year basis.

Increases in payments for inpatient hospital services also reflect increases in the number of inpatient hospital admissions covered under HI. As shown in table III.A1, increases in admissions are attributable to increases in both HI fee-for-service enrollment and admission incidence[34] (admissions per beneficiary). The historical and projected increases in enrollment reflect an increase in the population aged 65 and over that is more rapid than in the total population of the United States, as well as the coverage of certain disabled beneficiaries and persons with end-stage renal disease. Increases in the enrollment are expected to continue, mirroring the ongoing demographic shift into categories of the population that are eligible for HI protection. During the 1990s, the choice of more beneficiaries to enroll in managed care plans was an offsetting effect, which is shown in the managed care shift effect column of table III.A1. In other words, greater enrollment in managed care plans reduces the number of beneficiaries with fee-for-service Medicare coverage and thereby reduces hospital admissions paid through fee-for-service. (In the last few years, however, this managed care shift effect has reversed, as significant numbers of beneficiaries have left managed care plans.)

Since the beginning of the prospective payment system (PPS), increases in inpatient hospital payments from "other sources" are primarily due to three factors: (1) the changes in diagnosis-related group (DRG) coding as hospitals continue to adjust to the PPS; (2) the trend toward treating less complicated (and thus less expensive) cases in outpatient settings, resulting in an increase in the average prospective payment per admission; and (3) legislation affecting the payment rates. The impact of several budget reconciliation acts, sequesters as required by the Gramm-Rudman-Hollings Act, and additional legislative effects are reflected in other sources, as appropriate. The average complexity of hospital admissions (case mix) is expected to increase by 1.0 percent annually in fiscal years 2004 through 2028—as a result of an assumed continuation of the current trend toward treating less complicated cases in outpatient settings, ongoing changes in DRG coding, and the overall impact of new technology. Additionally, part of the increase from other sources can be attributed to the increase in payments for certain costs, not included in the DRG payment, that are generally increasing at a rate slower than the input price index. Other possible sources of changes

[34]For 2010-2020, this factor is estimated to be negative, reflecting the influx of beneficiaries aged 65 (and the resulting reduction in the average age of beneficiaries) due to the retirement of the baby boom. By 2025, the aging of the baby boom is expected to increase the incidence of admissions.

in payments include (1) a shift to more or less expensive admissions due to changes in the demographic characteristics of the covered population; (2) changes in medical practice patterns; and (3) adjustments in the relative payment levels for various DRGs, or addition/deletion of DRGs, in response to changes in technology.

The increases in the input price index (less any intensity allowance specified in the law), units of service, and other sources are compounded to calculate the total increase in payments for inpatient hospital services. These overall increases are shown in the last column of table III.A1.

c. Fee-for-Service Payments for Skilled Nursing Facility, Home Health Agency, and Hospice Services

Historical experience with the number of days of care covered in skilled nursing facilities (SNFs) under HI has been characterized by wide swings. This extremely volatile experience has resulted, in part, from legislative and regulatory changes and from judicial decisions affecting the scope of coverage. Most recently, at the start of the prospective payment system (PPS) in 1998 and 1999, there were large decreases in utilization. The intermediate projections reflect modest increases in covered SNF days based on growth and aging of the population.

Increases in the average HI cost per day[35] in SNFs are caused principally by increasing payroll costs for nurses and other required skilled labor. From 1991 through 1996, large rates of increase in cost per day occurred due to nursing home reform regulations. For 1997 and 1998, this increase was smaller than during the previous 6 years, but still large by historical standards. Projected rates of increase in cost per day are assumed to decline to a level slightly higher than increases in general earnings throughout the projection period. For 1998 and later, adjustments are included to reflect the implementation of the new PPS for SNFs, as required by the Balanced Budget Act of 1997. Increases in reimbursement per day also reflect implementation and expiration of special provisions from the Balanced Budget Refinement Act of 1999 and the Benefits Improvement and Protection Act of 2000.

The resulting increases in fee-for-service expenditures for SNF services are shown in table III.A2.

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[35]Cost is defined to be the total of HI reimbursement and beneficiary cost sharing.

Table III.A2.—Relationship between Increases in HI Expenditures and Increases in Taxable Payroll[1]

Calendar year	Inpatient hospital[2,3]	Skilled nursing facility[3]	Home health agency[3]	Managed care	Weighted average[3,4]	HI administrative costs[3,5]	HI expenditures[3,5]	HI taxable payroll	Ratio of expenditures to payroll[6]
Historical data:									
1994	7.0%	43.0%	33.2%	33.0%	13.7%	31.6%	13.9%	11.7%	2.0%
1995	4.6	19.5	18.1	39.1	9.6	-1.6	9.5	6.1	3.1
1996	6.8	21.8	8.0	45.3	10.9	3.1	10.8	5.7	4.9
1997	1.1	15.3	-1.0	39.9	5.7	26.3	6.0	7.6	-1.5
1998	-0.6	-0.8	-36.9	11.8	-3.6	6.3	-3.4	8.0	-10.6
1999	2.3	-18.2	-50.9	20.7	-1.2	2.9	-1.2	6.9	-7.5
2000	1.6	7.5	-40.4	2.5	0.8	38.0	1.4	7.8	-6.0
2001	9.7	22.3	54.2	-3.6	9.9	-11.9	9.4	2.2	7.0
2002	8.6	10.7	32.6	-10.8	7.1	14.4	7.3	0.8	6.4
2003	6.2	-1.2	-10.2	0.1	4.6	-0.5	4.5	2.2	2.2
Intermediate estimates:									
2004	7.7	10.5	7.7	11.9	8.5	10.9	8.6	5.0	3.4
2005	5.6	5.2	5.4	19.0	7.3	0.9	7.2	5.9	1.2
2006	-5.7	-9.1	-5.1	76.2	6.1	-3.0	5.9	5.3	0.6
2007	1.1	-1.4	2.6	25.3	6.8	0.2	6.7	5.1	1.5
2008	4.9	2.1	6.2	10.7	6.4	2.0	6.3	5.2	1.0
2009	3.7	1.6	4.0	13.1	6.3	1.5	6.2	5.1	1.1
2010	6.1	5.7	6.3	6.4	6.1	3.0	6.1	5.0	1.0
2015	7.3	6.8	6.8	5.9	6.8	3.9	6.7	4.5	2.2
2020	7.9	7.9	7.8	6.3	7.4	4.6	7.3	4.3	2.9
2025	7.7	8.5	8.4	6.9	7.5	4.8	7.5	4.1	3.2

[1]Percent increase in year indicated over previous year.
[2]This column may differ slightly from the last column of table III.A1, since table III.A1 includes all persons eligible for HI protection while this table excludes noninsured persons.
[3]Costs attributable to insured beneficiaries only, on an incurred basis. Benefits and administrative costs for noninsured persons are expected to be financed through general revenue transfers and premium payments, rather than through payroll taxes.
[4]Includes costs for hospice care.
[5]Includes costs of Peer Review Organizations through 2001 and Quality Improvement Organizations beginning in 2002.
[6]Percent increase in the ratio of HI expenditures to taxable payroll. This increase is equivalent to the differential between the increase in HI costs and the increase in taxable payroll.

Until recently, HI experience with home health agency (HHA) payments had shown a generally upward trend, frequently with sharp increases in the number of visits from year to year. During 1989-1995, extremely large increases in the number of visits occurred. Growth slowed dramatically in 1996 and 1997, in part as a result of intensified efforts to identify fraudulent activities in this area. The growth in the benefit was also heavily affected by the enactment of the Balanced Budget Act of 1997, which introduced interim per beneficiary cost limits, at levels resulting in substantially lower aggregate payments. These cost limits were used until the prospective payment system was implemented in October 2000. For 1998 through 2001, large decreases in utilization have been observed. Data for 2002 and 2003 show a slight increase. For 2004 and later, modest increases are assumed, based on growth and aging of the population.

In addition, beginning in 1998, certain categories of HHA services were transferred from HI to SMI, but with a portion of the cost of the transferred services met through the HI trust fund during a 6-year transitional period. At the start of the HHA prospective payment system, the transferred services represented a little over one-half of all HHA services. The HHA estimates shown in this report represent the total cost to HI from (1) HI-covered HHA services, and (2) the transitional payments to the SMI trust fund for the applicable portion of SMI HHA costs, as specified by the Balanced Budget Act of 1997. Reimbursement per episode of care[36] is assumed to increase at a slightly higher rate than increases in general earnings, but adjustments to reflect the limiting, by legislation, of HHA reimbursement per episode are included where appropriate. In particular, payments were set to be equivalent to a 15-percent reduction in the prior interim cost limits, effective October 2002. Reimbursement per episode also includes any change in the mix of services being provided. During the first year the prospective payment system was in effect, this mix of services was much higher than anticipated. The resulting increases in fee-for-service expenditures for HHA services are shown in table III.A2.

HI covers certain hospice care for terminally ill beneficiaries. Hospice payments are very small relative to total HI benefit payments, but they have grown rapidly in most years. This growth rate slowed dramatically in recent years but rebounded sharply in 1999 through 2003. Although detailed hospice data are scant at this time, estimates for hospice benefit payment increases are based on mandated daily payment rates and annual payment caps, and assume modest growth in the number of covered days. Increases in hospice payments are not shown separately in table III.A2 due to their extremely small contribution to the weighted average increase for all HI types of service; they are, however, included in the average.

d. Managed Care Costs

Until very recently, HI experience with managed care payments has shown an upward trend. Per capita amounts have increased, following the same trend as fee-for-service per capita growth, based on the formula in the law to calculate managed care capitation amounts. The projection of future per capita amounts follows the requirements of current law, with updates based on the per capita growth for all of Medicare.

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[36]Under the HHA prospective payment system, Medicare payments are made for each episode of care, rather than for each individual home health visit.

The major reason for the past rapid growth in HI managed care expenditures has been the increase in managed care enrollment. This growth in enrollment was quite large in the mid-1980s, slowed in the late 1980s, then increased very rapidly through the mid-1990s. In the late 1990s, growth slowed to a more moderate level. Significant decreases occurred in 2001, 2002, and 2003. In 2004, levels are projected to remain constant but are expected to increase in 2005 as the effects of the provisions of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (also known informally as the Medicare modernization act, or MMA) begin to be realized. In 2006, very large increases in enrollment are projected with the advent of regional preferred provider organizations (PPOs) under the Medicare Advantage program. For 2007 through 2009, large increases (although smaller than in 2006) are projected, with gradual increases in enrollment thereafter. In addition, PPO demonstrations are being conducted from 2003 through 2005 that will increase total managed care enrollment for those years.

e. Administrative Expenses

Historically, the cost of administering the HI trust fund has remained relatively small in comparison with benefit amounts. The ratio of administrative expenses to benefit payments has generally fallen within the range of 1 to 3 percent. The short-range projection of administrative cost is based on estimates of workloads and approved budgets for intermediaries and the Centers for Medicare & Medicaid Services. In the long range, administrative cost increases are based on assumed increases in workloads, primarily due to growth and aging of the population, and on assumed unit cost increases of slightly less than the increases in average hourly earnings that are shown in table III.A1. In addition, amounts are added to reflect the costs of administering the new MMA requirements.

2. Financing Analysis Methodology

Because the HI trust fund is supported by payroll taxes, HI costs must be compared on a year-by-year basis with the taxable payroll in order to analyze costs and evaluate the financing. Since the vast majority of total HI costs are related to insured beneficiaries, and since general revenue appropriations and premium payments are expected to support the uninsured segments, the remainder of this section will focus on the financing for insured beneficiaries only.

a. Taxable Payroll

Taxable payroll increases occur as a result of increases in both average covered earnings and the number of covered workers. The taxable payroll projection used in this report is based on the same economic assumptions used in the 2004 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. The projected increases in taxable payroll for this report, under the intermediate assumptions, are shown in table III.A2.

b. Relationship between HI Costs and Taxable Payroll

The single most meaningful measure of cost increases, with reference to the financing of the system, is the relationship between cost increases and taxable payroll increases. If costs increase more rapidly than taxable payroll, either income rates must be increased or costs reduced (or some combination thereof) to finance the system in the future. Table III.A2 shows the projected increases in HI costs relative to taxable payroll over the first 25-year projection period. These relative increases fluctuate, reaching 1.0 percent per year in 2010, and then to a level of about 3.2 percent per year by 2025 for the intermediate assumption, as the baby boom population becomes eligible for benefits.

The result of these relative growth rates is a steady increase in the year-by-year ratios of HI expenditures to taxable payroll, as shown in table III.A3. Under the low cost alternative, increases in HI expenditures follow a similar pattern relative to increases in taxable payroll, but at a somewhat lower rate; the rate becomes slightly lower than the rate for taxable payroll by 2010 but then increases, reaching about 1.3 percent more per year than taxable payroll by 2025. The high cost alternative follows a comparable pattern but at a somewhat higher rate than under the intermediate assumptions, gradually becoming about 3.0 percent more than taxable payroll by 2010 and then increasing to about 5.2 percent more than taxable payroll by 2025.

Table III.A3.—Summary of HI Alternative Projections

Calendar year	Increases in aggregate HI inpatient hospital payments[1]				Changes in the relationship between expenditures and payroll[1]			Expenditures as a percent of taxable payroll[3,4,5]
	Average hourly earnings	CPI	Other factors[2]	Total[3]	HI expendi-tures[3,4,5]	Taxable payroll	Ratio of expenditures to payroll	
Intermediate:								
2004	3.3%	1.2%	5.0%	7.7%	8.6%	5.0%	3.4%	3.12%
2005	3.9	1.5	2.5	5.6	7.2	5.9	1.2	3.15
2006	3.8	2.0	-8.4	-5.5	5.9	5.3	0.6	3.17
2007	3.9	2.4	-2.1	1.2	6.7	5.1	1.5	3.22
2008	4.1	2.7	1.3	4.9	6.3	5.2	1.0	3.25
2009	4.1	2.8	0.1	3.8	6.2	5.1	1.1	3.29
2010	4.1	2.8	2.4	6.1	6.1	5.0	1.0	3.32
2015	3.9	2.8	3.6	7.3	6.7	4.5	2.2	3.63
2020	3.9	2.8	4.1	7.8	7.3	4.3	2.9	4.13
2025	3.9	2.8	4.0	7.7	7.5	4.1	3.2	4.81
Low cost:								
2004	3.3	1.1	2.0	4.5	6.3	5.4	0.9	3.04
2005	3.8	1.0	0.8	3.6	5.3	5.8	-0.5	3.02
2006	3.4	1.3	-9.8	-7.3	4.2	5.3	-1.0	2.99
2007	3.5	1.7	-3.6	-0.8	4.9	5.0	-0.2	2.97
2008	3.5	1.8	-0.2	2.7	4.2	5.0	-0.7	2.95
2009	3.5	1.8	-1.4	1.5	4.1	4.8	-0.7	2.92
2010	3.5	1.8	0.8	3.8	3.9	4.7	-0.8	2.90
2015	3.3	1.8	1.9	4.8	4.4	4.1	0.3	2.91
2020	3.3	1.8	2.4	5.3	5.0	3.9	1.0	3.01
2025	3.3	1.8	2.4	5.3	5.2	3.8	1.3	3.21
High cost:								
2004	2.6	2.5	8.2	11.0	11.0	3.1	7.7	3.25
2005	5.9	2.6	3.4	8.3	9.7	7.2	2.4	3.32
2006	3.9	2.2	-6.4	-3.3	7.9	5.8	2.0	3.39
2007	3.2	3.8	-0.7	2.6	8.0	3.7	4.2	3.53
2008	6.5	5.4	1.9	8.1	9.3	6.1	3.0	3.63
2009	7.3	5.5	1.9	8.7	11.0	9.0	1.8	3.70
2010	5.5	4.7	4.6	10.1	9.9	6.7	3.0	3.81
2015	4.6	3.8	5.4	9.9	9.3	4.9	4.1	4.58
2020	4.6	3.8	5.8	10.4	9.8	4.7	4.9	5.72
2025	4.6	3.8	5.7	10.2	10.0	4.6	5.2	7.34

[1]Percent increase for the year indicated over the previous year.
[2]Other factors include hospital hourly earnings, hospital price input intensity, unit input intensity allowance, units of service as measured by admissions, and additional sources.
[3]On an incurred basis.
[4]Includes expenditures attributable to insured beneficiaries only.
[5]Includes hospital, SNF, HHA, managed care, and hospice expenditures; administrative costs; and costs of Quality Improvement Organizations.

3. Projections under Alternative Assumptions

In almost every year since the trust fund was established, average HI expenditures per beneficiary have increased substantially faster than increases in average earnings and prices in the general economy. Table III.A2 shows the estimated past experience of HI from 1994 to 2003. As mentioned earlier, HI now makes most payments to hospitals on a prospective basis. Payments to skilled nursing facilities have been made prospectively since mid-1998, and home health reimbursement became prospective in October 2000. The prospective payment systems have made (and are expected to continue to make)

HI outlays potentially less vulnerable to excessive rates of growth in the health care industry. However, there is still considerable uncertainty in projecting HI expenditures—for inpatient hospital services as well as for other types of covered services—due to the uncertainty of the underlying economic assumptions and utilization increases. Uncertainty in projecting HI expenditures also exists because of the possibility that future legislation will affect unit payment levels, particularly for inpatient hospital services. Although current law is assumed throughout the estimates shown in this report, legislation has been enacted affecting the payment levels to hospitals for the past 18 years, and future legislation is probable.

In view of the uncertainty of future cost trends, projected HI costs have been prepared under three alternative sets of assumptions. A summary of the assumptions and results is shown in table III.A3. Increases in the economic factors (average hourly earnings and CPI) for the three alternatives are consistent with those underlying the OASDI report.

HI costs beyond the first 25-year projection period are based on the assumption that average per beneficiary expenditures (excluding demographic impacts) will increase at a rate of 1 percent faster than the Gross Domestic Product (GDP) per capita. HI expenditures, which were 3.1 percent of taxable payroll in 2003, will increase to 4.8 percent by the year 2025 and to 12.4 percent by the year 2075 under the intermediate assumptions. Hence, if all of the projection assumptions are realized over time, the HI income rates provided in current law (3.39 percent of taxable payroll) will be grossly inadequate to support the HI cost.

During the first 25-year projection period, the low cost and high cost alternatives contain assumptions that result in HI costs increasing, relative to taxable payroll increases, approximately 2 percentage points less rapidly and 2 percentage points more rapidly, respectively, than the results under the intermediate assumptions. Costs beyond the first 25-year projection period assume that the 2-percentage-point differential gradually decreases until the year 2053, when HI cost increases relative to taxable payroll are approximately the same as under the intermediate assumptions. Under the low cost alternative, HI expenditures would be 3.2 percent of taxable payroll in the year 2025, increasing to 6.1 percent of taxable payroll by 2075. Under the high cost alternative, HI expenditures in the year 2025 would increase to 7.3 percent of taxable payroll, and to 25.8 percent of taxable payroll in 2075.

B. SUPPLEMENTARY MEDICAL INSURANCE

SMI consists of Part B and, beginning in 2004, Part D. The benefits provided by each part are quite different in nature. As a result, the actuarial methodologies used to produce the estimates for each part reflect these differences and, therefore, are presented in separate sections.

1. Part B

a. Cost Projection Methodology

Estimates under the intermediate assumptions are calculated separately for each category of enrollee and for each type of service. The estimates are prepared by establishing the allowed charges or costs incurred per enrollee for a recent year (to serve as a projection base) and then projecting these charges through the estimation period. The per enrollee charges are then converted to reimbursement amounts by subtracting the per enrollee values of the deductible and coinsurance. Aggregate reimbursement amounts are calculated by multiplying the per enrollee reimbursement amounts by the projected enrollment. In order to estimate cash expenditures, an allowance is made for the delay between receipt of, and payment for, the service.

(1) Projection Base

To establish a suitable base from which to project the future Part B costs, the incurred payments for services provided must be reconstructed for the most recent period for which a reliable determination can be made. Therefore, payments to providers must be attributed to dates of service, rather than to payment dates; in addition, the nonrecurring effects of any changes in regulations, legislation, or administration, and of any items affecting only the timing and flow of payments to providers, must be eliminated. As a result, the rates of increase in the Part B incurred cost differ from the increases in cash expenditures.

(a) Carrier Services

Reimbursement amounts for physician services, durable medical equipment (DME), laboratory tests performed in physician offices and independent laboratories, and other services (such as physician-administered drugs, free-standing ambulatory surgical center facility services, ambulance, and supplies) are paid through organizations acting for the Centers for Medicare & Medicaid

Services (CMS). These organizations, referred to as "carriers," determine whether billed services are covered under Part B and establish the allowed charges for covered services. A record of the allowed charges, the applicable deductible and coinsurance, and the amount reimbursed after reduction for coinsurance and the deductible is transmitted to CMS.

The data are tabulated on an incurred basis. As a check on the validity of the projection base, incurred reimbursement amounts are compared with cash expenditures reported by the carriers through an independent reporting system.

(b) Intermediary Services

Reimbursement amounts for institutional services under Part B are paid by the same "fiscal intermediaries" that pay for HI services. Institutional care covered under Part B includes outpatient hospital services, home health agency services, laboratory services performed in hospital outpatient departments, and other services (such as renal dialysis performed in free-standing dialysis facilities, services in outpatient rehabilitation facilities, and services in rural health clinics).

Currently, there are separate payment systems for almost all the Part B institutional services. For these systems, the intermediaries determine whether billed services are covered under Part B and establish the allowed payment for covered services. A record of the allowed payment, the applicable deductible and coinsurance, and the amount reimbursed after reduction for coinsurance and the deductible is transmitted to CMS.

For those services still reimbursed on a reasonable-cost basis, the costs for covered services are determined on the basis of provider cost reports. Reimbursement for these services occurs in two stages. First, bills are submitted to the intermediaries, and interim payments are made on the basis of these bills. The second stage takes place at the close of a provider's accounting period, when a cost report is submitted and lump-sum payments or recoveries are made to correct for the difference between interim payments and final settlement amounts for providing covered services (net of coinsurance and deductible amounts). Tabulations of the bills are prepared by date of service, and the lump-sum settlements, which are reported only on a cash basis, are adjusted (using approximations) to allocate them to the time of service.

(c) Managed Care Services

Managed care plans with contracts to provide health services to Medicare beneficiaries are reimbursed directly by CMS on either a reasonable cost or capitation basis. Comprehensive data on such direct reimbursements are available only on a cash basis. Certain approximations must be made to allocate expenses to the period when services were rendered.

(2) Fee-for-Service Payments for Aged Enrollees and Disabled Enrollees without End-Stage Renal Disease

Disabled persons with end-stage renal disease (ESRD) have per enrollee costs that are substantially higher and quite different in nature from those of most other disabled persons. Hence, Part B costs for them have been excluded from the analysis in this section and are contained in a later section. Similarly, costs associated with beneficiaries enrolled in managed care plans are discussed separately.

(a) Carrier Services

i. Physician Services

Medicare payments for physician services are based on a fee schedule, which reflects the relative level of resources required for each service. The fee schedule amount is equal to the product of the procedure's relative value, a conversion factor, and a geographic adjustment factor. Payments are based on the lower of the actual charge and the fee schedule amount. Increases in physician fees are based on growth in the Medicare Economic Index (MEI),[37] plus a performance adjustment reflecting whether past growth in the volume and intensity of services met specified targets under the sustainable growth rate mechanism. Table III.B1 shows the projected MEI increases and performance adjustments for 2005 through 2013. The physician fee updates shown through 2004 are actual values. The modified update shown in column 4 reflects the growth in the MEI, the performance adjustment, and legislative impacts, such as the addition of preventative services.

[37]The MEI is a measure of inflation in physician practice costs and general wage levels.

Table III.B1.—Components of Increases in Total Allowed Charges per Fee-for-Service Enrollee for Carrier Services

[In percent]

Calendar year	Physician fee schedule: Increase due to price changes: MEI	MPA[1]	Physician update[2]	Modified update[3]	Residual factors	Total increase[4]	CPI	DME	Lab	Other carrier
Aged:										
1993	2.7	-1.3	1.4[5]	1.4	-1.5	-0.1	2.8	20.1	2.6	7.2
1994	2.3	7.0	7.0[5]	6.8	1.3	8.2	2.5	7.7	-2.7	9.5
1995	2.1	7.5	7.5[5]	7.3	1.5	8.9	2.9	16.1	-4.0	5.4
1996	2.0	-1.2	0.8[5]	0.8	-0.1	0.7	2.9	6.1	-8.0	13.7
1997	2.0	-1.4	0.6[5]	0.6	3.7	4.3	2.3	12.0	-5.2	14.9
1998	2.2	1.2	2.3[5]	2.8	1.4	4.2	1.3	-2.1	-9.3	10.1
1999	2.3	0.0	2.3	2.6	1.4	4.1	2.2	5.2	0.1	10.9
2000	2.4	3.0	5.5	5.8	3.8	9.8	3.5	10.4	7.7	14.4
2001	2.0	3.0	4.8	5.2	4.2	9.6	2.7	12.8	7.0	16.1
2002	2.6	-7.0	-4.8	-4.0	5.7	1.5	1.4	13.6	7.5	16.7
2003	3.0[6]	-1.1[6]	1.7[6]	1.5	4.4	5.9	2.3	14.7	6.2	14.8
2004	2.9	-1.4	1.5	3.8	3.0	7.0	1.2	-2.7	4.2	9.0
2005	2.7	-1.2	1.5	1.5	3.4	5.0	1.5	-0.6	6.5	12.0
2006	1.9	-7.0	-5.2	-5.2	5.3	-0.2	2.0	4.1	3.3	13.2
2007	2.2	-7.0	-5.0	-5.7	5.5	-0.5	2.4	4.4	2.9	12.5
2008	1.8	-7.0	-5.3	-5.4	5.3	-0.4	2.7	4.5	2.8	12.1
2009	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	0.2	5.4	11.2
2010	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	6.1	5.4	10.0
2011	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	6.0	5.4	9.0
2012	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	6.1	5.4	8.8
2013	2.3	-4.3	-2.1	-2.1	3.0	0.8	2.8	6.0	5.4	8.8
Disabled (excluding ESRD):										
1993	2.7	-1.3	1.4[5]	1.4	6.4	7.9	2.8	18.0	5.5	30.4
1994	2.3	7.0	7.0[5]	6.8	4.7	11.8	2.5	7.2	0.5	0.1
1995	2.1	7.5	7.5[5]	7.3	1.2	8.5	2.9	18.2	-2.3	3.9
1996	2.0	-1.2	0.8[5]	0.8	-1.2	-0.4	2.9	4.8	0.0	8.8
1997	2.0	-1.4	0.6[5]	0.6	1.5	2.1	2.3	14.7	-4.5	7.9
1998	2.2	1.2	2.3[5]	2.8	2.0	4.9	1.3	2.7	-5.9	10.9
1999	2.3	0.0	2.3	2.6	-0.1	2.5	2.2	1.6	2.1	10.1
2000	2.4	3.0	5.5	5.8	1.9	7.8	3.5	9.2	2.7	10.3
2001	2.0	3.0	4.8	5.2	5.0	10.5	2.7	14.6	8.1	18.9
2002	2.6	-7.0	-4.8	-4.0	8.2	3.9	1.4	21.3	12.3	22.5
2003	3.0[6]	-1.1[6]	1.7[6]	1.5	5.3	6.8	2.3	16.2	7.8	21.4
2004	2.9	-1.4	1.5	3.8	3.0	6.9	1.2	-2.8	4.1	8.5
2005	2.7	-1.2	1.5	1.5	3.4	4.9	1.5	-0.6	6.3	10.6
2006	1.9	-7.0	-5.2	-5.2	5.2	-0.3	2.0	4.0	2.9	11.6
2007	2.2	-7.0	-5.0	-5.7	5.4	-0.6	2.4	4.4	2.7	11.2
2008	1.8	-7.0	-5.3	-5.4	5.2	-0.5	2.7	4.5	2.7	11.1
2009	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	0.1	5.3	10.4
2010	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	6.1	5.4	9.5
2011	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	6.0	5.4	8.7
2012	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	6.1	5.4	8.5
2013	2.3	-4.3	-2.1	-2.1	3.0	0.8	2.8	6.0	5.4	8.5

[1]Medicare performance adjustment.

[2]Reflects the growth in the MEI, the performance adjustment, and legislation that impacts the physician fee schedule update. The legislative impacts are -2.3 percent in 1994, -2.1 percent in 1995, -1.1 percent in 1998, and -0.2 percent in 2001-2003. For 2004 and 2005, the Medicare modernization act established a minimum update of 1.5 percent.

[3]Reflects the growth in the MEI, the performance adjustment, and all legislation affecting physician services—for example, the addition of new preventative services enacted in 1997 and 2000. The legislative impacts would include those listed in footnote 2.

[4]Equals combined increases in allowed fees and residual factors.

[5]For this year there were separate updates for surgery, primary care, and other physician services. This value is the weighted average of these updates.

[6]The physician payment price changes for 2003 occurred on March 1, 2003.

The projected physician fee schedule expenditures should be considered unrealistically low due to the current law structure of physician payment updates under the sustainable growth rate system (SGR). The SGR requires that future physician payment increases be adjusted for past actual physician spending relative to a target spending level. Consequently, the system would have led to large negative reductions in physician fee schedule rates for 2004 and 2005. To avoid these reductions, the Medicare modernization act (MMA) established minimum updates of 1.5 percent for 2004 and 2005. However, the target spending level was not adjusted, and actual physician expenditures, therefore, are expected to continue to exceed the SGR targets. This situation causes projected physician updates to be about –5 percent for 7 consecutive years, beginning in 2006. The result is a cumulative reduction in the payment rates for physician services of more than 31 percent from 2005 to 2012. In contrast, the MEI is expected to increase by 19 percent over the same time frame. Multiple years of significant reductions in physician payments per service are very unlikely to occur before legislative changes intervene, but these payment reductions are required under the current law SGR system and are included in the physician fee schedule projections.

Per capita physician charges also have changed each year as a result of a number of other factors besides fee increases, including more physician visits per enrollee, the aging of the Medicare population, greater use of specialists and more expensive techniques, and certain administrative actions. The fifth column of table III.B1 shows the increases in charges per enrollee resulting from these residual factors. Because the measurement of increased allowed charges per service is subject to error, this error is included implicitly under residual causes. Based on the increases in table III.B1, table III.B2 shows the estimates of the incurred reimbursement for carrier services per fee-for-service enrollee.

Table III.B2.—Incurred Reimbursement Amounts per Fee-for-Service Enrollee for Carrier Services

Calendar year	Fee-for-service enrollment [millions]	Physician fee schedule	DME	Lab	Other carrier
Aged:					
1993	28.683	$834.94	$87.49	$92.30	$118.65
1994	28.657	908.50	94.76	89.78	130.30
1995	28.387	992.64	109.77	86.36	137.56
1996	27.807	999.97	116.26	79.50	156.39
1997	27.040	1,038.17	130.43	75.28	179.81
1998	26.267	1,090.25	127.52	68.25	198.31
1999	25.941	1,136.78	134.06	68.52	219.82
2000	26.062	1,253.23	148.08	73.53	251.57
2001	26.859	1,378.67	167.36	78.78	292.35
2002	27.696	1,401.14	190.45	84.67	341.25
2003	28.143	1,488.08	218.63	89.96	391.00
2004	28.349	1,595.55	213.57	93.81	423.98
2005	28.045	1,671.43	211.97	99.85	475.15
2006	24.613	1,666.91	220.82	103.15	538.45
2007	23.521	1,656.19	230.69	106.11	606.43
2008	23.491	1,645.44	241.08	109.10	680.08
2009	23.169	1,610.05	241.32	114.97	756.47
2010	23.519	1,574.91	256.08	121.19	832.56
2011	23.967	1,540.48	271.61	127.74	908.11
2012	24.627	1,505.93	288.28	134.62	988.54
2013	25.412	1,514.93	305.76	141.86	1,076.24
Disabled (excluding ESRD):					
1993	3.243	686.02	115.34	67.41	121.28
1994	3.470	771.40	124.25	67.73	121.61
1995	3.643	837.94	146.83	66.35	126.64
1996	3.777	834.81	153.54	66.46	137.88
1997	3.840	854.52	176.59	63.51	148.72
1998	3.917	896.38	181.25	59.74	165.16
1999	4.061	920.26	183.98	60.96	181.51
2000	4.248	995.82	201.02	62.69	200.10
2001	4.468	1,104.69	230.61	67.78	237.87
2002	4.634	1,151.52	280.31	76.09	297.14
2003	4.832	1,238.17	323.99	82.34	360.51
2004	5.121	1,322.79	321.06	85.91	390.27
2005	5.269	1,384.87	318.65	91.32	431.74
2006	5.139	1,378.84	331.46	94.01	481.82
2007	5.152	1,368.75	346.01	96.53	536.03
2008	5.231	1,359.20	361.47	99.16	595.77
2009	5.283	1,329.24	361.77	104.39	657.93
2010	5.384	1,299.78	383.79	110.00	720.26
2011	5.469	1,270.78	406.91	115.91	782.74
2012	5.551	1,241.72	431.77	122.14	849.30
2013	5.638	1,248.81	457.90	128.70	921.83

ii. DME, Laboratory, and Other Carrier Services

As with physician services, over time unique fee schedules or reimbursement mechanisms have been established for virtually all other non-physician carrier services. Table III.B1 shows the increases in the allowed charges per fee-for-service enrollee for DME, laboratory services, and other carrier services. Based on the increases in table III.B1, table III.B2 shows the corresponding estimates of the

average incurred reimbursement for these services per fee-for-service enrollee. The fee schedules for each of these expenditure categories are updated by increases in the CPI, together with applicable legislated limits on payment updates. In addition, per capita charges for these expenditure categories have grown as a result of a number of other factors, including increased number of services provided, the aging of the Medicare population, more expensive services, and certain administrative actions. This growth is projected based on recent past trends in growth per enrollee.

(b) Intermediary Services

Over the years, legislation has been enacted to establish new payment systems for virtually all Part B intermediary services. A fee schedule was established for tests performed in laboratories in hospital outpatient departments. The Balanced Budget Act of 1997 (BBA) implemented a prospective payment system (PPS), which began August 1, 2000, for services performed in the outpatient department of a hospital. It also implemented a PPS for home health agency services, which began October 1, 2000.

The historical and projected increases in charges and costs per fee-for-service enrollee for intermediary services are shown in table III.B3.

Table III.B3.—Components of Increases in Recognized Charges and Costs per Fee-for-Service Enrollee for Intermediary Services

[In percent]

Calendar year	Outpatient hospital	Home health agency[1]	Outpatient lab	Other intermediary
Aged:				
1993	7.1	19.2	4.6	26.2
1994	9.0	22.6	7.6	19.2
1995	10.3	23.1	0.7	20.2
1996	8.8	8.0	5.9	17.8
1997	7.4	1.6	8.7	12.0
1998	-1.4	2,990.7[2,3]	4.1	-4.0
1999	9.7	-1.3[2,3]	12.8	-20.8
2000	-0.6	15.1[3]	5.4	19.7
2001	12.5	-50.6[3]	0.6	14.2
2002	-1.3	5.8[3]	13.0	20.6
2003	4.9	-2.1[3]	6.8	3.8
2004	5.6	6.5	4.7	8.2
2005	6.8	6.2	7.1	9.0
2006	7.2	7.6	3.4	4.2
2007	7.7	7.1	0.6	6.1
2008	7.8	6.2	3.2	5.0
2009	7.8	5.3	5.3	5.2
2010	7.8	4.6	5.4	4.5
2011	7.3	4.3	5.4	4.5
2012	7.2	3.9	5.4	4.4
2013	7.2	3.7	5.4	4.4
Disabled (excluding ESRD):				
1993	11.2	—	-2.1	19.0
1994	12.5	—	-0.3	4.5
1995	10.5	—	-6.6	-5.4
1996	4.8	—	-12.1	25.8
1997	6.1	—	5.4	18.1
1998	-3.9	—[2,3]	0.3	-6.2
1999	8.0	-2.5[2,3]	13.4	-12.2
2000	3.6	13.0[3]	6.8	-11.1
2001	13.2	-44.1[3]	7.1	-6.1
2002	5.6	10.6[3]	15.7	28.4
2003	5.0	-2.8[3]	6.8	4.3
2004	5.5	5.4	4.6	5.2
2005	6.8	5.6	7.1	6.0
2006	7.0	5.1	3.2	-1.4
2007	7.6	6.2	0.6	6.0
2008	7.7	6.4	3.2	6.0
2009	7.8	5.4	5.3	6.0
2010	7.8	5.4	5.4	6.0
2011	7.3	5.3	5.4	6.0
2012	7.2	5.2	5.4	6.0
2013	7.2	5.2	5.4	6.0

[1]From July 1, 1981 to December 31, 1997, home health agency (HHA) services were almost exclusively provided by Part A. However, for those Part B enrollees not entitled to Part A, the coverage of these services was provided by Part B. During that time, since all Part B disabled enrollees were entitled to Part A, their coverage of these services was provided by Part A.

[2]Effective January 1, 1998, the coverage of a majority of HHA services for those individuals entitled to Part A and enrolled in Part B was transferred from Part A to Part B. As a result, as of January 1, 1998, there was a large increase in Part B expenditures for these services for the aged enrollees, and Part B coverage for these services resumed for disabled enrollees.

[3]Does not reflect the impact of adjustment for monies transferred from the Part A trust fund for HHA costs, as provided by the Balanced Budget Act of 1997.

Based on the increases in table III.B3, table III.B4 shows the estimates of the incurred reimbursement for the various intermediary services per fee-for-service enrollee. Each of these expenditure categories is projected on the basis of recent past trends in growth per enrollee, together with applicable legislated limits on payment updates.

Table III.B4.—Incurred Reimbursement Amounts per Fee-for-Service Enrollee for Intermediary Services

Calendar year	Fee-for-service enrollment [millions]	Outpatient hospital	Home health agency	Outpatient lab	Other intermediary
Aged:					
1993	28.683	$221.53	$5.38	$37.43	$83.99
1994	28.657	238.12	6.59	40.27	99.55
1995	28.387	262.24	8.11	40.54	119.51
1996	27.807	281.46	8.76	42.95	140.55
1997	27.040	296.96	8.90	46.67	156.04
1998	26.267	277.53	275.01[1]	48.58	146.16
1999	25.941	293.62	271.49[1]	54.81	120.89
2000	26.062	298.58	312.40[1]	57.78	147.04
2001	26.859	398.29	154.32[1]	58.15	168.16
2002	27.696	397.60	163.21[1]	65.72	205.93
2003	28.143	441.83	159.85[1]	70.22	210.75
2004	28.349	472.70	170.29	73.49	230.23
2005	28.045	518.41	180.92	78.72	250.95
2006	24.613	582.17	194.60	81.36	261.59
2007	23.521	634.70	208.48	81.89	277.53
2008	23.491	691.87	221.44	84.53	291.45
2009	23.169	754.19	233.17	89.03	306.61
2010	23.519	821.58	243.99	93.82	320.46
2011	23.967	890.01	254.48	98.87	334.81
2012	24.627	962.83	264.44	104.19	349.49
2013	25.412	1,041.14	274.25	109.79	364.69
Disabled (excluding ESRD):					
1993	3.243	232.54	0.00	61.15	110.26
1994	3.470	259.24	0.00	60.97	114.04
1995	3.643	288.29	0.00	56.98	108.33
1996	3.777	288.76	0.00	50.10	137.59
1997	3.840	300.90	0.00	52.79	159.30
1998	3.917	274.44	180.57[1]	52.96	145.04
1999	4.061	286.59	176.08[1]	60.07	133.17
2000	4.248	314.48	198.89[1]	64.13	120.24
2001	4.468	424.44	111.23[1]	68.66	116.33
2002	4.634	451.45	123.01[1]	79.46	152.01
2003	4.832	497.14	119.57[1]	84.83	156.05
2004	5.121	530.99	125.98	88.74	165.90
2005	5.269	580.58	132.98	95.01	175.77
2006	5.139	648.67	139.73	98.05	173.17
2007	5.152	706.10	148.39	98.61	183.64
2008	5.231	768.87	157.85	101.76	194.69
2009	5.283	837.20	166.36	107.12	206.42
2010	5.384	911.33	175.35	112.87	218.85
2011	5.469	986.54	184.70	118.93	232.04
2012	5.551	1,066.59	194.35	125.32	246.00
2013	5.638	1,152.70	204.41	132.05	260.79

[1]See footnote 3 of table III.B3.

As indicated in table III.B4, expenditures for outpatient hospital services are expected to increase significantly due to provisions in the BBA, the Balanced Budget Refinement Act of 1999, and the Benefits Improvement and Protection Act of 2000 that reduce the beneficiaries' coinsurance payments but maintain the same total payment to the hospital. The result is that Medicare pays a larger portion of the total outpatient hospital costs.

(3) Fee-for-Service Payments for Persons with End-Stage Renal Disease

Most persons with ESRD are eligible to enroll for Part B coverage. For analytical purposes, enrollees with ESRD who are also eligible as Disability Insurance beneficiaries are included in this section because their per enrollee costs are both higher and different in nature from those of most other disabled persons. Specifically, most of the Part B reimbursements for these persons are for kidney transplants and renal dialysis.

The estimates under the intermediate assumptions reflect the unique payment mechanism through which ESRD services are reimbursed under Medicare. Also, the estimates assume a continued increase in enrollment. The historical and projected enrollment and costs for Part B benefits are shown in table III.B5.

Table III.B5.—Enrollment and Incurred Reimbursement for End-Stage Renal Disease

	Average enrollment [thousands]		Reimbursement [millions]	
Calendar year	Disabled ESRD	ESRD only	Disabled ESRD	ESRD only
1993	58	70	$1,034	$1,051
1994	63	76	1,112	1,202
1995	68	78	1,266	1,329
1996	73	81	1,424	1,440
1997	73	80	1,502	1,469
1998	81	79	1,424	1,319
1999	86	81	1,540	1,337
2000	90	83	1,442	1,570
2001	94	86	1,742	1,768
2002	95	91	1,954	2,030
2003	97	94	2,152	2,087
2004	103	97	2,334	2,221
2005	106	99	2,485	2,367
2006	109	102	2,554	2,518
2007	111	103	2,651	2,641
2008	114	105	2,785	2,767
2009	116	106	2,913	2,888
2010	118	107	3,071	3,013
2011	120	108	3,232	3,136
2012	122	109	3,410	3,260
2013	123	109	3,619	3,399

(4) Managed Care Costs

Part B experience with managed care payments has generally shown a strong upward trend. However, in recent years, there has been a slowdown in the number of Medicare beneficiaries choosing to enroll in managed care plans—and, in 2001, 2002, and 2003, an overall reduction in this number. Capitated plans currently account for approximately 95 percent of all SMI managed care payments. For capitated plans, per capita payment amounts have grown, following the same trend as fee-for-service per capita cost growth, based on the formula in the law to calculate capitation amounts. The projection of future per capita amounts follows the requirements of the Medicare modernization act (MMA) and the Balanced Budget Act of 1997 in regard to the Medicare Advantage capitation amounts, which increase at rates based on the per capita growth for all of Medicare and, beginning in 2006, on the amounts bid by Medicare Advantage plans. Table III.B6 shows the estimated number of Part B beneficiaries enrolled in a managed care plan and the aggregate incurred reimbursements associated with those enrollees.

Table III.B6.—Enrollment and Incurred Reimbursement for Managed Care

Calendar year	Average enrollment [millions]	Reimbursement [millions]
1993	2.487	$4,811
1994	2.840	5,455
1995	3.467	6,515
1996	4.368	8,800
1997	5.414	10,746
1998	6.416	15,839
1999	6.857	17,653
2000	6.856	18,620
2001	6.166	17,565
2002	5.538	17,517
2003	5.302	17,234
2004	5.376	19,404
2005	6.033	23,138
2006	10.130	40,140
2007	11.838	49,237
2008	12.519	54,632
2009	13.555	61,424
2010	13.894	65,309
2011	14.271	69,500
2012	14.658	74,031
2013	15.060	79,720

A substantial increase in Medicare Advantage enrollment is projected in 2006 as the provisions of the MMA give higher payments to Medicare Advantage plans. The higher payments provide incentives for expansion of coverage areas and for the provision of additional benefits to plan enrollees. In addition, preferred provider plan demonstrations are being conducted from 2003 through 2005 that will increase total managed care enrollment for those years, and regional preferred provider plans are beginning in 2006 and later.

(5) Administrative Expenses

The ratio of administrative expenses to benefit payments has declined to about 2 percent in recent years and is projected to continue to decline in future years. Projections of administrative costs are based on estimates of changes in average annual wages.

b. Summary of Aggregate Reimbursement Amounts on a Cash Basis under the Intermediate Assumptions

Table III.B7 shows aggregate historical and projected reimbursement amounts on a cash basis under the intermediate assumptions, by type of service. The difference between reimbursement amounts on a cash versus incurred basis results from the lag between the time of service and the time of payment. This lag has been gradually decreasing.

Table III.B7.—Aggregate Reimbursement Amounts on a Cash Basis

[In millions]

Calendar year	Physician fee schedule	DME	Carrier Lab	Carrier Other	Carrier Total	Intermediary Hospital	Intermediary Lab	Intermediary Home health agency	Intermediary Other	Intermediary Total	Total FFS	Managed care	Total Part B
Historical data:													
1993	$26,329	$2,805	$2,972	$4,017	$36,123	$7,491	$1,396	$148	$4,148	$13,183	$49,306	$4,672	53,977
1994	28,843	3,216	2,859	4,332	39,250	7,735	1,434	182	4,546	13,897	53,147	5,470	58,617
1995	31,660	3,689	2,807	4,530	42,686	8,666	1,448	229	5,331	15,674	58,360	6,610	64,970
1996	31,631	3,825	2,550	5,059	43,065	8,614	1,355	241	5,749	15,960	59,025	9,558	68,584
1997	31,898	4,236	2,385	5,586	44,105	9,358	1,503	208	6,575	17,643	61,748	10,962	72,710
1998	32,449	4,037	2,087	5,940	44,514	8,712	1,541	6,169[1]	6,381	16,792[1]	61,306[1]	15,338[1]	76,644
1999	33,354	4,279	2,078	6,451	46,163	8,795	1,681	6,783[1]	5,777	17,422[1]	63,585[1]	17,702[1]	81,287
2000	36,963	4,718	2,226	7,408	51,315	8,494	1,782	9,055[1]	6,251	20,879[1]	72,194[1]	18,358[1]	90,552
2001	42,028	5,447	2,434	8,904	58,813	12,839	1,947	4,386[1]	7,164	26,336[1]	85,149[1]	17,560[1]	102,709
2002	44,782	6,567	2,801	10,863	65,014	13,464	2,209	5,238[1]	8,621	29,531[1]	94,545[1]	17,497[1]	112,042
2003	48,291	7,755	2,975	12,755	71,776	15,370	2,504	4,959[1]	9,722	32,555[1]	104,331[1]	17,250[1]	121,581
Intermediate estimates:													
2004	52,293	7,776	3,190	14,143	77,402	16,283	2,594	5,420	10,168	34,465	111,867	19,656	131,523
2005	54,727	7,727	3,382	15,768	81,604	17,841	2,771	5,706	10,902	37,220	118,825	24,625	143,450
2006	49,472	7,276	3,172	16,091	76,011	18,066	2,608	5,547	10,517	36,738	112,749	40,900	153,649
2007	46,985	7,302	3,124	17,323	74,734	18,939	2,526	5,641	10,674	37,780	112,514	49,687	162,201
2008	46,551	7,628	3,204	19,371	76,754	20,603	2,598	5,945	11,150	40,297	117,050	55,201	172,251
2009	45,239	7,617	3,341	21,372	77,569	22,292	2,712	6,215	11,600	42,819	120,388	61,749	182,137
2010	44,818	8,149	3,568	23,839	80,374	24,599	2,896	6,588	12,220	46,303	126,677	65,661	192,338
2011	44,624	8,797	3,827	26,475	83,723	27,135	3,106	7,003	12,913	50,157	133,880	69,875	203,755
2012	44,696	9,557	4,131	29,513	87,897	30,061	3,351	7,472	13,708	54,591	142,488	74,504	216,992
2013	46,126	10,415	4,477	33,039	94,057	33,417	3,629	7,991	14,598	59,635	153,692	80,314	234,006

[1]See footnote 3 of table III.B3.

c. Projections under Alternative Assumptions

Part B cash expenditures for the low cost and high cost alternatives were developed by modifying the growth rates estimated under the intermediate assumptions. Beginning in the middle of calendar year 2003, the low cost and high cost incurred benefits for the following 4 quarters reflect some variation relative to the intermediate assumptions. Thereafter, the low cost and high cost alternatives contain assumptions that result in incurred benefits increasing, relative to the Gross Domestic Product (GDP), 2 percent less rapidly and 2 percent more rapidly, respectively, than the results under the intermediate assumptions. Administrative expenses under the low cost and the high cost alternatives are projected on the basis of their respective wage series growth. Based on the above methodology, cash expenditures as a percentage of GDP were calculated for all three sets of assumptions and are displayed in table III.B8. These expenditures are shown net of the monies transferred to the HI trust fund for home health agency costs in 2003.

Table III.B8.—Part B Cash Expenditures as a Percentage of the Gross Domestic Product for Calendar Years 2003-2013[1]

		Alternatives	
Calendar year	Intermediate assumptions	Low cost	High cost
2003	1.13	1.13	1.13
2004	1.17	1.14	1.18
2005	1.20	1.16	1.26
2006	1.22	1.16	1.31
2007	1.24	1.14	1.34
2008	1.25	1.13	1.38
2009	1.26	1.11	1.41
2010	1.26	1.09	1.44
2011	1.28	1.08	1.49
2012	1.30	1.08	1.54
2013	1.33	1.09	1.62

[1]Expenditures are the sum of benefit payments and administrative expenses.

2. Part D

The voluntary prescription drug benefit, which will start on January 1, 2006, presents challenges for projecting its costs. Except for limited specific drugs, Medicare has no historical experience in covering outpatient prescription drugs—and many provisions of the reimbursement mechanism are without precedent.

a. Cost Projection Methodology

(1) Projection Base

The Medicare Current Beneficiary Survey (MCBS) provides the base data for the projection of Part D expenses. The MCBS is a survey of about 12,000 beneficiaries that collects data on person-specific health care utilization, expenses, and sources of payment, including prescription drugs. The MCBS drug expenses were adjusted to correct for survey underreporting. Due to the nature of drug administration in the institutional setting, the MCBS cannot determine drug expenses for institutionalized beneficiaries; hence, drug expenses for this group were imputed. The data were standardized to a full-retail cost level by removing the estimated effects of rebates and discounts.

(2) Drug Benefit Payments

The adjusted MCBS drug costs were updated to projection years by the increases in per capita drug expenses shown in table III.B9. Since insurance coverage influences the spending level for covered services and drugs (that is, beneficiaries with increased insurance coverage for drugs would tend to increase their drug expenses), the MCBS drug expenses were adjusted to reflect differences in drug coverage between the Part D benefit and the existing coverage reported in the MCBS.

All individuals enrolled in Medicare Part A or Part B are eligible to enroll in the voluntary prescription drug benefit. However, individuals for which Medicare is the secondary payer are not assumed to enroll in Part D. It is assumed that 99 percent of the remaining individuals will enroll in Part D or receive prescription drug coverage under a creditable plan such as an employer-sponsored retiree plan. This assumption is used because of the large subsidy and late-enrollment surcharge.

Table III.B9 displays the components of the increases in Part D expenditures. Prescription drug plans are expected to negotiate price

discounts and manufacturer rebates, and manage drug utilization. In addition, these plans incur administrative costs for plan operation. Since drug expenses grow faster than administrative costs, the administrative percentage slowly decreases over time.

Table III.B9.—Components of Increases for Part D Expenditures

Calendar year	Annual per capita drug cost increase[1]	Cost management and discounts	Plan administrative expenses
Intermediate estimates:			
2004	11.9%	—	—
2005	11.4	—	—
2006	11.1	15%	12.7%
2007	10.7	17	12.2
2008	10.3	19	11.9
2009	9.8	21	11.6
2010	9.3	23	11.4
2011	8.8	25	11.3
2012	8.6	25	11.0
2013	8.3	25	10.7

[1]According to the National Health Expenditures Projections published February 11, 2004.

(a) Prescription Drug Plans

Projected drug expenses are allocated to the beneficiary premium, direct subsidy, and reinsurance subsidy by the benefit formula specifications (deductible, coinsurance, initial benefit limit, catastrophic threshold) for beneficiaries in prescription drug plans and Medicare Advantage drug plans. Low-income beneficiaries receive additional subsidies to help finance premium and cost-sharing payments. Subsidies are estimated for beneficiaries who meet the income and asset requirements.

The statute specifies that the base beneficiary premium is equal to 25.5 percent of the sum of the national average premium bid and the estimated catastrophic reinsurance. The actual premium would be greater for plans with bids above the national average and lower for plans with lower bids. The estimated average premium amounts are 25.5 percent of the estimated standard benefits.

Risk corridors encourage plans to participate in Part D by reducing risk exposure. The projections assume that surpluses and deficits would be about the same magnitude with a negligible net cost or savings.

(b) Employer-Sponsored Plans

Employer-sponsored prescription drug coverage for retirees may qualify as Part D prescription drug coverage. Medicare will subsidize qualifying employer-sponsored plans a portion of qualifying retiree

drug expenses determined without regard to plan reimbursements. The subsidies are estimated for those beneficiaries—about 21 percent—who are assumed to enroll in employer-sponsored plans.

(c) Per Capita Reimbursements

Table III.B10 shows estimated enrollments and per capita reimbursements for beneficiaries in private prescription drug plans, low-income beneficiaries, and beneficiaries in employer-sponsored plans.

Table III.B10.—Incurred Reimbursement Amounts per Enrollee for Part D Expenditures

	Private plans						
	All beneficiaries			Low-income		Employer plans	
Calendar year	Enrollment (thousands)	Direct subsidy	Reinsurance	Enrollment (thousands)	Low-income subsidy	Enrollment (thousands)	Employer subsidy
Intermediate estimates:							
2004	—	—	—	—	—	—	—
2005	—	—	—	—	—	—	—
2006	32,190	$905.59	$399.08	10,907	$2,128.64	8,547	$630.01
2007	32,768	985.07	418.09	11,097	2,263.81	8,700	696.93
2008	33,422	1,058.32	447.31	11,302	2,430.44	8,874	763.59
2009	34,103	1,132.11	475.61	11,532	2,596.38	9,055	832.62
2010	34,823	1,207.13	502.46	11,793	2,759.65	9,246	903.45
2011	35,651	1,280.50	527.39	12,084	2,934.50	9,466	975.01
2012	36,644	1,367.98	592.98	12,398	3,161.73	9,729	1,048.62
2013	37,740	1,478.45	637.02	12,734	3,413.55	10,021	1,136.43

b. Summary of Aggregate Reimbursement Amounts on a Cash Basis under the Intermediate Assumptions

Table III.B11 shows aggregate projected reimbursement to plans and employers by type of payment. Since payments would be made as incurred, cash and incurred are about the same.

Table III.B11.—Aggregate Reimbursement Amounts on a Cash Basis

[In millions]

Calendar year	Premiums	Direct subsidy	Reinsurance	Low-income subsidy	Employer subsidy	Total
Intermediate estimates:						
2004	—	—	—	—	—	—
2005	—	—	—	—	—	—
2006	$13,546	$29,150	$12,846	$23,217	$5,384	$84,144
2007	15,002	32,279	13,700	25,121	6,063	92,165
2008	16,446	35,371	14,950	27,468	6,776	101,011
2009	17,950	38,608	16,220	29,941	7,539	110,259
2010	19,533	42,035	17,497	32,544	8,353	119,962
2011	21,206	45,651	18,802	35,460	9,229	130,348
2012	23,300	50,128	21,729	39,201	10,202	144,560
2013	25,959	55,797	24,041	43,467	11,388	160,653

c. Projections under Alternative Assumptions

Part D expenditures for the low cost and high cost alternatives were developed by modifying the base (2006) estimates and the growth rates estimated under the intermediate assumptions. The base (2006) per capita estimates increased by 15 percent under the high cost scenario and decreased by 15 percent under the low cost scenario. For years after 2006, the growth assumptions decreased 2 percent per year under the low cost scenario, and increased 2 percent per year for the high cost scenario.

The 2006 base modifications of 15 percent include the following:

- ±5 percent for how well the Medicare Current Beneficiary Survey (MCBS) represents Medicare beneficiaries' drug expenses. The high cost scenario increases the MCBS data by 5 percent, and the low cost scenario decreases the MCBS data by 5 percent

- ±2 percent per year on the rate of change of drug expenses per capita. The national health expenditures (NHE) projections were used to increase the per capita drug expenses. The NHE projections use 2002 as a base and project succeeding years. Compared to the intermediate assumptions, the cumulative increase from 2002 to 2006 is 8 percent greater under the high cost scenario and 8 percent lower under the low cost scenario.

- ±2 percent for any differences between the drug per capita increase in the NHE projections and increases experienced by Medicare beneficiaries.

In addition, assumptions regarding participation in the low-income subsidies, employer-sponsored plan participation, drug plan administrative loading, and discount/management savings vary in the alternative scenarios. Table III.B12 compares these varying assumptions.

Table III.B12.—Part D Assumptions under Alternative Scenarios for Calendar Years 2003-2013[1]

Calendar year	Intermediate assumptions	Alternatives	
		Low cost	High cost
Low-income participation as a percent of low-income eligible beneficiaries			
2003	—	—	—
2004[1]	65.0	58.5	71.5
2005[1]	65.0	58.5	71.5
2006	75.2	65.1	85.2
2007	75.4	65.4	85.3
2008	75.5	65.6	85.4
2009	75.6	65.7	85.4
2010	75.6	65.8	85.5
2011	75.7	65.8	85.5
2012	75.7	65.8	85.5
2013	75.7	65.8	85.5
Percentage of beneficiaries enrolled in subsidized employer-sponsored plans			
2003	—	—	—
2004	—	—	—
2005	—	—	—
2006	21.0	24.9	17.2
2007	21.0	24.9	17.2
2008	21.0	24.9	17.2
2009	21.0	24.9	17.2
2010	21.0	24.9	17.2
2011	21.0	24.9	17.2
2012	21.0	24.9	17.2
2013	21.0	24.9	17.2
Drug plan administrative loading as a percent of net premium			
2003	—	—	—
2004	—	—	—
2005	—	—	—
2006	12.7	7.7	17.7
2007	12.2	7.5	16.8
2008	11.9	7.4	15.9
2009	11.6	7.3	15.2
2010	11.4	7.3	14.7
2011	11.3	7.3	14.3
2012	11.0	7.3	13.7
2013	10.7	7.2	13.3
Drug plan discount and drug management savings percentage			
2003	—	—	—
2004	—	—	—
2005	—	—	—
2006	15.0	20.0	15.0
2007	17.0	22.0	16.0
2008	19.0	24.0	17.0
2009	21.0	26.0	18.0
2010	23.0	28.0	19.0
2011	25.0	30.0	20.0
2012	25.0	30.0	20.0
2013	25.0	30.0	20.0

[1]Participation rates under the transitional assistance benefit.

Table III.B13 compares expenditures under intermediate, low, and high cost alternatives as a percentage of gross domestic product.

Table III.B13.—Part D Cash Expenditures as a Percentage of the Gross Domestic Product for Calendar Years 2003-2013[1]

Calendar year	Intermediate assumptions	Alternatives	
		Low cost	High cost
2003	—	—	—
2004	0.03	0.02	0.03
2005	0.03	0.03	0.03
2006	0.67	0.53	0.82
2007	0.70	0.54	0.88
2008	0.73	0.55	0.93
2009	0.75	0.56	0.96
2010	0.78	0.57	1.01
2011	0.81	0.58	1.07
2012	0.85	0.61	1.15
2013	0.90	0.63	1.24

[1]Expenditures are the sum of benefit payments and administrative expenses.

IV. APPENDICES

A. MEDICARE AMENDMENTS SINCE THE 2003 REPORT

Since the 2003 annual report was transmitted to Congress on March 17, 2003, two laws have been enacted that have a significant effect on the Medicare trust funds.

The Social Security Protection Act of 2004 (Public Law 108-203) was enacted after the estimates shown in this report were completed. This legislation adds $173 million to the HI trust fund to compensate for the 2000 and 2001 military wage credits that had not been paid to the HI trust fund plus interest through July 1, 2004.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (Public Law 108-173, enacted on December 8, 2003, also known informally as the Medicare modernization act, or MMA) included a number of provisions affecting the HI and SMI programs and established a new prescription drug benefit under the Medicare program. The more important provisions, from an actuarial standpoint, are described in the following paragraphs. Certain provisions with a relatively minor financial impact on the HI and SMI programs, but which are important from a policy perspective, are described as well.

Title I

- As a prelude to the new Part D drug program, a temporary program is established for Medicare-endorsed drug discount cards. Enrollment in the temporary plan begins in May 2004, and access to discounts begins in June 2004. The program phases out as the drug benefit becomes available in 2006. Card sponsors may charge up to a $30 annual enrollment fee. Beneficiaries whose incomes do not exceed 135 percent of the Federal poverty level and who do not have third-party drug coverage are eligible for transitional assistance of $600 per year and for a subsidized enrollment fee.

- Beginning January 1, 2006, all Medicare beneficiaries (those entitled to Part A or enrolled in Part B) are eligible for subsidized prescription drug coverage under Part D. Beneficiaries may access the subsidized coverage by enrolling in either a stand-alone prescription drug plan (PDP) or an integrated Medicare Advantage plan (MA, formerly known as Medicare+Choice) that offers Part D coverage alongside the Medicare medical benefit. While the Part D program is voluntary, a late enrollment penalty will apply for beneficiaries who fail to enroll at the first opportunity and who do not maintain creditable coverage elsewhere. Creditable coverage

can be any external prescription drug coverage (such as through a retiree group health plan) that meets or exceeds the actuarial value of standard coverage in Part D. Unlike Part B, beneficiaries must opt into Part D by affirmatively electing a plan with drug coverage.

- Part D coverage includes most FDA-approved drugs and biologicals. Drugs currently covered in Parts A and B will remain covered there. Basic Part D coverage can consist of either standard coverage or an alternative design that provides the same actuarial value. However, the specific, multi-part actuarial equivalence test specified in the law leaves very little flexibility for plans to design alternative coverage. For an additional premium, plans may also offer supplemental coverage that exceeds the value of basic coverage.

- Standard Part D coverage is defined for 2006 as having a $250 deductible, with 25 percent coinsurance (or other actuarially equivalent amounts) for drug costs above the deductible and below the initial coverage limit of $2,250. The beneficiary is then responsible for all costs until the $3,600 out-of-pocket limit is reached. For higher costs, there is catastrophic coverage that requires enrollees to pay the greater of 5 percent coinsurance or a small copay ($2 for generic or preferred multi-source brand and $5 for any other drug). After 2006, these benefit parameters are indexed to the growth in per capita spending in Part D. In determining out-of-pocket costs, only those amounts actually paid by the enrollee or another individual (and not reimbursed through insurance) are counted. The exception is cost-sharing assistance from Medicare's low-income subsidies and from State Pharmacy Assistance Programs.

- The drug benefit will feature a new beneficiary premium, which represents 25.5 percent of the cost of basic coverage on average. For prescription drug plans (PDPs) and the drug portion of Medicare Advantage (MA) plans, the premium will be determined by bids, as follows: Plan bids will reflect the revenue required to offer Part D coverage in the service area to a beneficiary with the national average risk profile. Taken together, all PDP bids and MA drug bids will form a national weighted average (weighted by plan enrollment). Each plan's premium will be 25.5 percent of the national weighted average plus or minus the difference between the plan's bid and the average.

- The 74.5-percent Federal subsidy to prescription drug plans and Medicare Advantage plans will consist of a direct subsidy and reinsurance. The reinsurance will reimburse plans for 80 percent of drug costs in the catastrophic range. The remainder of the subsidy is the direct subsidy, which consists of a plan payment equal to the plan's risk-adjusted bid (net of the estimated reinsurance) minus the enrollee premium.

- Beneficiaries with low incomes and modest assets will be eligible for subsidies that eliminate or reduce their Part D premiums and cost sharing. Following are some of the rules that apply:

  For beneficiaries who are full-benefit dual eligible for Medicaid and whose incomes do not exceed 100 percent of the Federal poverty level (FPL), there is no premium or deductible; copays in the initial coverage are $1 for generic or preferred multi-source brand and $3 for any other drugs; there is no initial coverage limit; and there is no cost sharing in the catastrophic coverage.

  For other dually eligible beneficiaries and for beneficiaries whose incomes are below 135 percent FPL and whose assets are less than three times the SSI limit, there is no premium or deductible; copays in the initial coverage are $2 for generic or preferred multi-source brand and $5 for any other drugs; there is no initial coverage limit; and there is no cost sharing in the catastrophic coverage.

  For beneficiaries (not in the above categories) whose incomes are below 150 percent FPL and who have less than $10,000 in assets ($20,000 for a couple), the premium is reduced on a linear sliding scale (down to $0 at or below 135 percent FPL); the deductible is reduced to $50; the coinsurance is reduced to 15 percent; and the initial coverage limit is removed. After reaching the catastrophic coverage, copays are $2 for generic or preferred multi-source brand and $5 for any other drugs.

- With the availability of Part D drug coverage and low-income subsidies in 2006, Medicaid will no longer be the primary payer for full-benefit dual eligibles. States are subject to a contribution requirement and must continue to pay the Part D account in the SMI trust fund a portion of their estimated forgone drug costs for this population. Starting in 2006, States must pay 90 percent of the estimated costs, with this percentage phasing down over a 10-year period to 75 percent in 2015.

- Both the prescription drug plans and the Medicare Advantage plans will bear at least some insurance risk. In areas where beneficiaries do not have access to at least two plans, one of which must be a PDP, CMS will contract with a private entity on a non-insurance--risk basis to deliver the benefit. Contracts with these so-called "fallback" plans will contain performance measures that incentivize cost containment. The fallback plans will feature a different premium, calculated by CMS, representing 25.5 percent of the estimated per capita cost of providing the benefit in the region, plus administrative loading factors similar to those found in the at-risk plans.

- To help them gain experience with the Medicare population, at-risk plans will be protected by a system of risk corridors, which allow the government to assist plans with unexpected costs and to share in any unexpected savings. After 2007, the initial risk corridors will be widened and become less protective.

- Prescription drug plans and Medicare Advantage plans may set up formularies for their drug coverage, subject to statutory standards. The formulary must contain at least two drugs in every therapeutic category and class. Plans must also afford enrollees the opportunity to challenge and appeal formulary questions and placement of drugs in tiered copay structures, and they must assemble broad networks of pharmacies to ensure convenient access.

- To encourage employer and union plans to continue to offer prescription drug coverage to Medicare retirees, subsidies to these plans are authorized. To be eligible, the employer or union plan must meet or exceed the value of standard coverage in Part D. The subsidy pays the plan sponsor 28 percent of the allowable costs associated with enrollee prescription drug costs between $250 and $5000.

- A new Medicare Prescription Drug Account within the SMI trust fund will be established to fund Part D. Amounts in this account will be kept separate from other funds in Part B and do not affect the computation of the Part B premium. The account will generally consist of periodically appropriated general revenues, premiums from Part D enrollees, State contributions to Medicare drug costs, interest, and any leftover balance from the temporary drug discount card's Transitional Assistance Account. To assure prompt payments of benefits and administrative expenses under Part D, an initial contingency reserve fund will be established in 2005. The

Secretary of Health and Human Services (HHS) will determine the level of this reserve, up to 10 percent of estimated 2006 expenditures.

Title II

- A fourth payment mechanism, 100 percent of local fee-for-service costs, is added to the Medicare Advantage payment rate calculation for 2004. Prior to this change, the payment rate for an area was set at the highest of three amounts: a minimum payment (or floor) rate, a rate that was a blend of a local rate and a national rate, or a minimum percentage increase from the previous year's rate. The fee-for-service payment mechanism will be rebased no less than once every 3 years and will be adjusted to remove payments for direct medical education costs and to include the additional costs of Department of Defense and Department of Veterans Affairs military facility services to Medicare-eligible beneficiaries.

- For 2004 and later, the minimum percentage increase rate is the greater of 102 percent of the prior year's rate or the prior year's rate increased by the national per capita Medicare growth percentage.

- Effective in 2006, a new regional Medicare Advantage (MA) plan program is established that allows regional coordinated care plans to participate in the MA program. The Secretary of HHS will establish between 10 and 50 regions. Plans wishing to participate will be required to serve an entire region. There are provisions to encourage plan participation, including risk corridors in 2006 and 2007. In addition, an MA Regional Plan Stabilization Fund will be established that can be used to encourage plan entry and limit plan withdrawals. Initially, beginning on January 1, 2007 and continuing until December 31, 2013, $10 billion will be available for expenditures from the Fund. Funds will be drawn from the HI trust fund and the Part B account in the SMI trust fund in proportion to the actuarial value of the benefits under Parts A and B.

- Regional Medicare Advantage plans must have a single deductible for benefits under Parts A and B and must include catastrophic limits for out-of-pocket expenditures. Payment rates to plans are not increased to provide this coverage.

- A competitive program is established beginning in 2006. Medicare Advantage organizations will be required to submit a bid to provide services on either a local or regional level. The Secretary has

authority similar to that of the Director of the Office of Personnel Management, with respect to Federal Employee Health Benefit plans, to negotiate the bid amounts. The plan bids will be compared to a benchmark amount. For local plans, the benchmark will be the local MA payment rate; for MA regional plans, the benchmark will be a regional benchmark that is a blend of MA payment rates and MA plan bids. Plans that submit bids below the benchmark will be paid their bids, plus 75 percent of the difference between the bid and the benchmark—a difference that must be returned to beneficiaries in the form of reduced premiums or additional benefits. The government will retain the remaining 25 percent of the difference, half of which will be used to provide additional funding for the Stabilization Fund. For plans that bid above the benchmark, the government will pay the benchmark amount, and the beneficiary will be responsible for paying the difference between the bid and the benchmark as a premium.

- Plan bids replace the Adjusted Community Rate (ACR) proposals beginning in 2006.

- Beginning on January 1, 2010, a 6-year demonstration for the application of a comparative cost adjustment (CCA) is established in up to six qualifying Metropolitan Statistical Areas (MSAs). To qualify, a MSA must have at least 25 percent of Medicare eligibles in a local coordinated care plan and at least two coordinated Medicare Advantage local plans offered by different organizations. In CCA areas, the competitive benchmark will be set at the weighted average of private plan bids and the Medicare fee-for-service (FFS) average per capita cost, in the CCA area. Beneficiaries enrolling in plans with bids or FFS amounts below the CCA competitive benchmark will receive 75 percent of the difference between the benchmark and the bid/FFS amount, and the government will retain the remaining 25 percent of the difference. Beneficiaries in plans with bids/FFS amounts above the benchmark will pay the excess. Both the benchmark and changes to the Part B premium will be phased in over a 4-year period between 2010 and 2013.

- The Part B premium for fee-for-service beneficiaries in comparative cost adjustment demonstration areas can never increase or decrease by more than 5 percent because of the demonstration. Beneficiaries with incomes below 150 percent of the Federal poverty level who also meet specified asset requirements are

protected from any Part B premium change as a result of the demonstration.

Titles III - VIII

1. Provisions Affecting both HI and SMI

- Beginning April 1, 2004, the annual payment update for services provided under the home health prospective payment system is applied on a calendar year, rather than a fiscal year, basis. In addition, the update is changed from the full market basket percentage update to market basket minus 0.8 percentage point, for calendar years 2004 (last 3 calendar quarters), 2005, and 2006, returning to full market basket in calendar year 2007.

- Payments to home health agencies for services provided in rural areas are increased by 5 percent for 1 year, beginning April 1, 2004. Standard home health prospective payment amounts will not be reduced to offset this increase.

- For direct graduate medical education payments, the freeze on further updates to hospitals with per resident amounts above 140 percent of the national average is reinstated for fiscal years 2004 through 2013.

- For independent laboratory tests furnished to hospital inpatients and outpatients, separate payment for the pathology technical component is allowed to continue for 2005 and 2006.

- A "Medicare as secondary payor" provision is effective upon enactment, clarifying that Medicare must be reimbursed whenever another insurer's responsibility to pay is established.

- The Secretary of the Treasury and the Secretary of HHS are given the legal authority to transfer money from the general fund to the HI and/or SMI trust funds in order to restore interest income lost by the trust fund(s) in the case of past clerical error, without asking for a legislative fix from Congress as previously required.

- The Medicare Trustees are required to include, as part of their annual report, a new section reviewing the extent of general revenue financing for both the HI and SMI trust funds (including the new Part D account), beginning with the 2005 report. The new section is to examine whether the projected difference between total Medicare outlays and "dedicated funding sources" exceeds

45 percent of outlays for that fiscal year or for any of the succeeding 6 fiscal years. If this test is met in two consecutive Trustees Reports, a warning must be issued, and the President must submit proposed legislation to be considered by both houses of Congress within certain time limits specified in the law.

2. Provisions Affecting HI Only

- For payments under the acute care inpatient hospital prospective payment system, the urban and rural standardized amounts are permanently equalized, as of April 1, 2004. Beginning in fiscal year 2004, the standardized amount for hospitals in Puerto Rico will equal the standardized amount for urban hospitals (rather than separate urban and rural standardized amounts).

- For payments under the acute care inpatient hospital prospective payment system, there is a reduction in the percentage of the standardized payment amount that is subject to adjustment by the wage index of the area where the hospital is located. Beginning October 1, 2004, 62 percent (rather than 71 percent) of the standardized amount is adjusted by the area wage index, if such change results in a higher total payment to the hospital.

- Effective April 1, 2004, under the acute care inpatient hospital prospective payment system, the formula used to calculate the disproportionate share hospital (DSH) adjustment for large urban hospitals will be used for all hospitals (except certain urban hospitals known as "Pickle hospitals," which are unaffected). However, for rural, small urban, and sole community hospitals, the maximum DSH adjustment will be capped at 12 percent.

- Under the acute care inpatient hospital prospective payment system, hospitals will receive the full market basket update for fiscal years 2005 through 2007, if they submit ten hospital quality measures. If they do not submit the measures, they will receive an update of market basket minus 0.4 percentage point.

- Under the acute care inpatient hospital prospective payment system, the adjustment factors used in determining indirect medical education (IME) add-on payments are changed—to 5.98 percent for the period from April 1, 2004 to September 30, 2004, 5.79 percent for fiscal year 2005, 5.58 percent for fiscal year 2006, 5.38 percent for fiscal year 2007, and 5.5 percent for fiscal years 2008 and later.

- Under the acute care inpatient hospital prospective payment system, the Secretary is required to add new diagnosis codes annually, the threshold for new technology is modified, and budget neutrality is waived.

- For services provided in short-term general hospitals in Puerto Rico, the blend used to determine payments under the acute care inpatient hospital prospective payment system is changed. The blend had been a 50/50 split between Federal and local amounts, but is changed to 62.5 percent Federal and 37.5 percent local for the period from April 1, 2004 to September 30, 2004, and to 75 percent Federal and 25 percent local for fiscal year 2005 and later.

- Beginning October 1, 2004, under the acute care inpatient hospital prospective payment system, a new process is established for making payment adjustments based on the commuting patterns of hospital employees. If at least 10 percent of hospital employees in the hospital's wage index area commute to hospitals in areas with higher wage index values, and if the average hourly wage of the hospital exceeds the average hourly wage of all hospitals in the qualifying area, the hospital can qualify for a blended wage index amount based on the percent of employees who commute to adjacent metropolitan standard areas that have a higher wage index.

- Under the acute care inpatient hospital prospective payment system, a new process is established by which hospitals may appeal their geographical classification, which is used for wage index purposes. To qualify under this provision, a hospital must not qualify for reclassification based on the regulatory requirement related to distance, and must meet other criteria. Reclassifications granted under this provision will apply for 3 years, beginning April 1, 2004. In addition, certain hospitals that were reclassified by an act of Congress that expired September 30, 2003 are reclassified from January 1, 2004 through September 30, 2004.

- The per diem skilled nursing facility (SNF) payment amount for residents with AIDS is increased by 128 percent, effective October 1, 2004. This increase will no longer apply on or after such date as the Secretary implements SNF case mix refinements to reflect the increased costs associated with caring for residents with AIDS.

3. Provisions Affecting SMI Only

- The Part B deductible remains at $100 through 2004 and increases to $110 in 2005. Then, beginning in 2006, it will be increased each year by the annual percentage increase in the Part B aged actuarial rate.

- Beginning January 2007, the Part B premium is increased for beneficiaries meeting certain income thresholds. Beneficiaries with modified adjusted gross incomes under $80,000 will continue to pay premiums that are 25 percent of twice the actuarial rate. For beneficiaries with incomes between $80,000 and $100,000, the applicable percentage is 35 percent; for those with incomes between $100,000 and $150,000, the percentage is 50 percent; for incomes between $150,000 and $200,000, the percentage is 65 percent; and for incomes over $200,000, the percentage is 80 percent. For married couples, the income thresholds are doubled. These thresholds are to be updated each calendar year by the CPI. There is a 5-year adjustment period for this provision as well; that is, the amount of premium above 25 percent of twice the actuarial rate is phased in—at 20, 40, 60, 80, and 100 percent for 2007 to 2011 and later, respectively.

- For military retirees who enroll(ed) in Part B during 2001-2004, the late enrollment penalty imposed on beneficiaries who do not enroll in Part B upon becoming eligible for Medicare is waived, for premium payments for January 2004 and later. Also, a special enrollment period for these military retirees is to begin as soon as possible and end December 31, 2004.

- The payment updates under the physician fee schedule cannot be less than 1.5 percent for 2004 and 2005. (The application of the statutory formula would have resulted in negative updates for 2004 and 2005.) Further, an adjustment to the sustainable growth rate (SGR) target expenditures as a result of this change is prohibited. Also required is use of the 10-year rolling average gross domestic product (GDP) in the SGR formula, beginning with SGRs for 2003.

- Under prior statute, the Secretary is required to establish a separate geographic adjustment factor for each of the three relative value components of each physician's service. These three components measure the relative costs of physician work, practice expense, and malpractice insurance in one area compared to the national average. Only 0.25 of the work component has a geographic adjustment, and 0.75 is the same in all areas of the

country. Effective for services furnished during 2004, 2005, and 2006, the Secretary is required to raise the work geographic index to 1.0 in any physician payment locality where the index is less than 1.0 for those years.

- Under the physician fee schedule, the geographic indices for services furnished in Alaska are substantially increased to 1.67 for 2004 and 2005.

- A new 5 percent physician incentive program is established for services furnished on or after January 1, 2005 and before January 1, 2008. In addition, the payments made under the current 10 percent physician incentive program will now be made automatically rather than having the physician identify that the services were furnished in such area.

- Effective January 1, 2005, for beneficiaries whose Part B coverage begins on or after such date, a one-time, initial preventive physical exam is covered within 6 months of a beneficiary's first coverage under Part B.

- Screening blood tests are covered, effective January 1, 2005, for the early detection of cardiovascular disease (or abnormalities associated with elevated risk for such disease). Also included are tests for cholesterol and other lipid or triglyceride levels and certain other indications associated with the presence of, or elevated risk for, cardiovascular disease. Frequency standards for each type of test will be established, but are not to exceed once every 2 years.

- Beginning January 1, 2005, diabetes screening tests— including a fasting plasma glucose test and such other tests as the Secretary determines appropriate—are covered for persons at risk for diabetes. Frequency standards for such screening will be established, but are not to exceed two times per year.

- Payment for screening mammography (effective upon enactment) and for diagnostic mammography (effective January 1, 2005) is to be made under the physician fee schedule.

- Beginning in 2007, a competitive bidding process will be phased in for most durable medical equipment, enteral nutrition, and off-the-shelf orthotics. For all durable medical equipment, excluding Class II devices, a freeze on payment increases is established from 2004 to 2008, or until competitive bidding is

implemented. Payment increases for prosthetic devices, prosthetics, and orthotics are frozen from 2004 to 2006. For oxygen, oxygen equipment, standard power wheelchairs, nebulizers, diabetic supplies, hospital beds, and air mattresses, payment amounts are established for 2005 and later years, or until competitive bidding is implemented, by applying an update factor based on certain findings of the Office of the Inspector General.

- In 2004, most currently covered drugs and biologicals are to be paid at 85 percent of the April 2, 2003 average wholesale price. (This is a reduction from 95 percent of the average wholesale price.) However, certain drugs will be paid at an alternative percent, not less than 80 percent, and others will be paid at 95 percent of the average wholesale price. Beginning in 2005, payment will be based on 106 percent of the average sales price for drugs and biologicals.

- Under the outpatient hospital prospective payment system, payment rates are established for covered outpatient drugs. Payment for a sole source drug must be, in 2004, between 88 and 95 percent of the average wholesale price and, in 2005, between 83 and 95 percent of the average wholesale price. In 2004 and 2005, payment for a noninnovator multiple source drug may not exceed 46 percent of the average wholesale price. A separate payment will be designated for orphan drugs, and provisions are made for payment for other certain specific drugs.

- Under the outpatient hospital prospective payment system, the "hold harmless" provision for small rural hospitals and sole community hospitals is extended for 2 years, beginning with cost reporting periods on or after January 1, 2004. (Under the "hold harmless" provision, these hospitals are to be paid no less under the outpatient hospital prospective payment system that was implemented in August 2000 than they would have been paid under the prior reimbursement system.) Also, a study is to be conducted to determine whether the costs of providing outpatient services are greater in rural areas than in urban areas. If the rural costs are determined to be greater, further payment increases to these hospitals are to be made.

- For end-stage renal disease patients, the composite rate payment for renal dialysis will be increased by 1.6 percent for services provided on or after January 1, 2005. The prohibition on dialysis facility exceptions to the composite rate is made inapplicable to pediatric facilities. A basic case-mix adjusted prospective payment

system, with certain specific requirements, is to be established for services furnished on or after January 1, 2005.

- For physical and occupational therapy services, a new moratorium is issued for therapy caps (the annual caps on the amount of services to be reimbursed for a beneficiary), for 2004 and 2005. Also, therapy caps are not applicable to expenses incurred from the date of enactment through December 31, 2003. A deadline is set for the submission of previously mandated reports relating to the caps and therapy utilization, and GAO is required to identify conditions that may justify waiver of the therapy caps and to recommend criteria for such waivers.

- The annual update for ambulatory surgical center payments is changed—from CPI to CPI minus 3 percentage points for the period from April 1, 2004 to September 30, 2004, and to 0 percent for fiscal year 2005, the last quarter of calendar year 2005, and calendar years 2006-2009. (The update cycle is changed from a fiscal year to a calendar year basis during this period.) The requirement for basing payment rates on a survey of ambulatory surgical centers' costs is eliminated. Future implementation of a revised payment system is required.

- Beginning January 1, 2005, the payment methodology for therapeutic/diabetic shoes and inserts is moved under the fee schedule for orthotics and prosthetics. Lower payment limits than those in the fee schedule may be set if shoes and inserts of an appropriate quality are readily available at lower amounts. A payment amount is to be established for modifications to (rather than inserts for) covered shoes.

- For clinical laboratory tests, payment updates are eliminated for 2004-2008.

- An alternate fee schedule phase-in formula is established, effective July 1, 2004, for certain providers of ambulance services. Mileage payments for ground ambulance trips over 50 miles are increased, through 2008, by one-fourth of the payment per mile otherwise applicable to the trip. Through 2009, the Secretary is directed to provide a percentage increase in the base payment rate for ambulance trips that originate in certain rural areas. Through 2006, payments are increased by 2 percent for rural ground ambulance services and by 1 percent for non-rural ground ambulance services, with such increases not being taken into account in calculating payments in subsequent years.

- Effective January 1, 2005, a 5-year expansion of the items and services covered under Part B is authorized, when those items and services are furnished in hospitals and ambulatory care clinics operated by the Indian Health Service, an Indian tribe, or a tribal organization.

- The current telemedicine demonstration project is extended by 4 additional years, effective October 1, 2004, with $30 million funding authorized.

The preceding descriptions are brief summaries of complex sections of legislation and should be used only as overviews and general guides. Detailed information regarding these changes and other less significant changes can be found in documents prepared by and for the Congress.

The actuarial estimates shown in this report reflect the anticipated effects of these changes. The estimated financial impact of this legislation on the Medicare trust funds, in fiscal years 2004-2013, by title, is displayed in table IV.A1. The estimates in table IV.A1 were based on the economic assumptions underlying the President's 2004 Budget and may differ somewhat from the legislative impacts included in the 2004 Trustees Report, which reflect later data and the Trustees economic assumptions.

The Medicare modernization act also included provisions affecting the Medicaid program. The estimated Medicare cost of $669 billion, through 2013, as shown in table IV.A1, would be partially offset by Federal Medicaid savings of $120 billion and other net Federal savings of $15 billion, leaving an overall net Federal cost (excluding administrative costs, payroll tax impacts, and Federal income tax effects) of $534 billion, as shown in the President's 2005 Budget.

Table IV.A1.—Estimated Medicare Costs (+) or Savings (–) under the Medicare Prescription Drug, Improvement, and Modernization Act of 2003

[In billions]

Provision	Fiscal year										Total	
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2004–08	2004–13
Title I—Medicare prescription drug benefit:												
General premium subsidy	—	—	$24.0	$31.5	$34.4	$37.5	$40.9	$44.7	$49.4	$54.9	$89.9	$317.3
Reinsurance	—	—	5.5	12.0	12.9	14.0	15.2	16.5	18.7	21.4	30.4	116.1
Employer subsidy	—	—	3.9	5.7	6.4	7.2	8.0	9.0	10.1	11.3	16.0	61.6
Low–income subsidy	—	—	16.4	23.5	25.6	27.8	30.2	32.8	36.5	40.8	65.4	233.5
Rx card and transitional low–income subsidy	$2.3	$2.8	0.2	—	—	—	—	—	—	—	5.3	5.3
Receipts from States	—	—	–6.4	–9.0	–9.6	–10.3	–11.0	–11.7	–12.8	–14.0	–24.9	–84.7
Total	2.3	2.8	43.7	63.7	69.7	76.2	83.4	91.3	101.8	114.3	182.1	649.1
Title II—Medicare Advantage	1.7	2.4	4.3	5.4	5.5	5.0	5.0	5.3	5.6	6.0	19.3	46.3
Title III—Combating waste, fraud, and abuse	–0.4	–1.3	–1.5	–1.8	–2.0	–2.4	–2.8	–3.0	–3.3	–3.6	–6.9	–22.0
Title IV—Rural provisions	0.9	2.3	1.9	1.6	1.5	1.5	1.5	1.6	1.7	1.8	8.1	16.2
Title V—Provisions relating to Part A	0.4	0.8	0.6	0.4	0.4	0.4	0.4	0.4	0.5	0.5	2.4	4.5
Title VI—Provisions relating to Part B	1.7	3.1	1.3	–0.5	–1.8	–2.6	–3.0	–3.3	–3.4	–3.5	3.8	–12.0
Title VII—Provisions relating to Parts A and B	–0.1	–0.1	–0.2	–0.3	–0.4	–0.4	–0.4	–0.4	–0.5	–0.5	–1.0	–3.2
Title VIII—Cost Containment	—	—	—	–0.2	–0.6	–1.0	–1.4	–1.9	–2.2	–2.4	–0.8	–9.7
Title IX—Regulatory reduction, contractor reform	—	—	—	—	—	—	—	—	—	—	—	—
Title X—Miscellaneous provisions	0.5	1.0	—	—	—	—	—	—	—	—	1.5	1.5
Part B premium offset	–1.1	–1.7	–0.9	0.1	0.7	1.2	1.4	1.5	1.5	1.6	–2.7	4.5
Other Part B interactions	1.6	2.8	2.3	0.0	–1.2	–1.6	–2.3	–2.5	–2.6	–2.6	5.4	–6.2
Net total Medicare cost	**7.3**	**12.1**	**51.5**	**68.4**	**71.8**	**76.3**	**81.8**	**89.1**	**99.1**	**111.6**	**211.1**	**669.1**
Net Federal Medicaid and other non-Medicare costs	0.7	0.7	–8.0	–12.1	–14.0	–15.9	–18.0	–20.2	–22.7	–25.6	–32.7	–135.1
Net Federal cost	8.0	12.8	43.5	56.3	57.8	60.5	63.9	68.8	76.4	86.0	178.4	534.0

Notes: 1. Estimates are based on assumptions underlying the President's Fiscal Year 2004 Budget.
2. Positive figures represent costs (increases in benefits or reductions in premiums); negative figures are savings (lower benefits or higher premiums).
3. Estimates exclude impacts on administrative costs (except for Title X), HI payroll taxes, and general income taxes.

B. AVERAGE MEDICARE EXPENDITURES PER BENEFICIARY

Table IV.B1 shows historical average per beneficiary expenditures for HI and SMI, as well as projected costs for calendar years 2004 through 2013 under the intermediate assumptions.

For both HI and SMI Part B, costs increased very rapidly in the early years when Medicare was still a new program and as a result of the rapid inflation of the 1970s and early 1980s. In addition, the cost-based reimbursement mechanisms in place provided relatively little incentive for efficiency in the provision of health care. Growth in average HI expenditures moderated dramatically following the introduction of the inpatient hospital prospective payment system in fiscal year 1984 but accelerated again in the late 1980s and early 1990s due to rapid growth in skilled nursing and home health expenditures. During this same period, Part B average costs generally continued to increase at relatively fast rates but slowed somewhat in the early 1990s with the implementation of physician fee reform legislation.

Expenditure growth moderated again during the late 1990s due to the effects of further legislation, including the Balanced Budget Act of 1997 (BBA), and efforts to control fraud and abuse. In addition, historically low levels of general and medical inflation helped reduce Medicare payment updates. HI per beneficiary costs actually decreased in 1998, 1999, and 2000, in part because of such BBA mandates as a reduction in payment updates to providers and a shift in home health benefits from HI to Part B, and because of a decline in utilization of services.

Table IV.B1.—HI and SMI Average Per Beneficiary Costs

Calendar year	Average per beneficiary costs				Average percent change[1]			
		SMI				SMI		
	HI	Part B	Part D	Total	HI	Part B	Part D	Total
Historical data:								
1970	$255	$101	—	$356	13.4%	14.8%	—	13.8%
1975	462	180	—	642	12.6	12.2	—	12.5
1980	895	390	—	1,285	14.1	16.7	—	14.9
1985	1,554	768	—	2,322	11.7	14.5	—	12.6
1990	1,963	1,304	—	3,267	4.8	11.2	—	7.1
1995	3,130	1,823	—	4,953	9.8	6.9	—	8.7
1996	3,412	1,900	—	5,312	9.0	4.2	—	7.2
1997	3,616	1,996	—	5,612	6.0	5.1	—	5.7
1998	3,483	2,071	—	5,554	-3.7	3.7	—	-1.0
1999	3,322	2,180	—	5,502	-4.6	5.3	—	-0.9
2000	3,272	2,381	—	5,653	-1.5	9.2	—	2.7
2001	3,559	2,646	—	6,205	8.8	11.1	—	9.8
2002	3,739	2,916	—	6,656	5.1	10.2	—	7.3
2003	3,747	3,219	—	6,966	0.2	10.4	—	4.7
Intermediate estimates:								
2004	4,131	3,369	—	7,500	10.2	4.7	—	7.7
2005	4,414	3,627	—	8,042	6.9	7.7	—	7.2
2006	4,639	3,833	$1,733	10,205	5.1	5.7	—	26.9
2007	4,805	3,984	1,861	10,650	3.6	3.9	7.4%	4.4
2008	4,995	4,156	1,999	11,150	3.9	4.3	7.4	4.7
2009	5,196	4,314	2,139	11,650	4.0	3.8	7.0	4.5
2010	5,389	4,472	2,279	12,140	3.7	3.7	6.5	4.2
2011	5,588	4,639	2,419	12,646	3.7	3.7	6.2	4.2
2012	5,784	4,816	2,615	13,215	3.5	3.8	8.1	4.5
2013	5,988	5,051	2,820	13,859	3.5	4.9	7.9	4.9

[1]Percent changes for 1970 represent the average annual increases from 1967 (the first full year of trust fund operations) through 1970. Similarly, percent changes shown for 1975, 1980, 1985, 1990, and 1995 represent the average annual increase over the 5-year period ending in the indicated year.

On average, annual increases in per beneficiary costs have been greater for SMI Part B than for HI during the previous 3 decades—by approximately 1.0 percent, 4.7 percent, and 1.0 percent per year in the 1970s, 1980s, and 1990s, respectively. This trend continued through 2003, in part due to the shift of certain home health services from HI to SMI Part B, which was completed in 2003. For the period 2004-2013, the projected SMI Part B increases are reduced to about the same rate as HI. This slowdown reflects (i) the physician payment updates that are expected to be about –5 percent each year for the years 2006-2012, and (ii) the provisions in the Medicare modernization act. Note that the large growth in the 1970s and 1980s is not expected to recur for either HI or Part B, due to more moderate inflation rates and the conversion of Medicare's remaining cost-based reimbursement mechanisms to prospective payment systems as part of the Balanced Budget Act of 1997.

Although SMI Part D coverage begins in 2004, the most significant provisions dealing with prescription drugs do not start until 2006. For the purposes of this discussion, only the per beneficiary expenditures

for prescription drugs will be included. As table IV.B1 indicates, average annual increases in per beneficiary costs for Part D are expected to be over 3 percent greater than HI or SMI Part B for the period 2006-2013. With the inclusion of the Part D costs in the Medicare total, total Medicare per beneficiary costs growth is expected to be 0.6 percent higher over the 2006-2013 period than it otherwise would be.

C. MEDICARE COST SHARING AND PREMIUM AMOUNTS

HI beneficiaries who use covered services may be subject to deductible and coinsurance requirements. A beneficiary is responsible for an inpatient hospital deductible amount, which is deducted from the amount payable by the HI trust fund to the hospital, for inpatient hospital services furnished in a spell of illness. When a beneficiary receives such services for more than 60 days during a spell of illness, he or she is responsible for a coinsurance amount equal to one-fourth of the inpatient hospital deductible for each of days 61-90 in the hospital. After 90 days in a spell of illness, each individual has 60 lifetime reserve days of coverage, for which the coinsurance amount is equal to one-half of the inpatient hospital deductible. A beneficiary is responsible for a coinsurance amount equal to one-eighth of the inpatient hospital deductible for each of days 21-100 of skilled nursing facility services furnished during a spell of illness.

Most persons aged 65 and older and many disabled individuals under age 65 are insured for HI benefits without payment of any premium. The Social Security Act provides that certain aged and disabled persons who are not insured may voluntarily enroll, subject to the payment of a monthly premium. In addition, since 1994, voluntary enrollees may qualify for a reduced premium if they have at least 30 quarters of covered employment.

Table IV.C1 shows the historical levels of the HI deductible, coinsurance amounts, and premiums, as well as projected values for future years based on the intermediate set of assumptions used in estimating the operations of the trust funds. Certain anomalies in these values resulted from specific trust fund features in particular years (for example, the effect of the Medicare Catastrophic Coverage Act of 1988 on 1989 values). The values listed in the table for future years are estimates, and the actual amounts are likely to be somewhat different as experience emerges.

Table IV.C1.—HI Cost Sharing and Premium Amounts

Year	Inpatient hospital deductible[1]	Inpatient coinsurance[1] Days 61-90	Inpatient coinsurance[1] Lifetime reserve days	SNF coinsurance days[1]	Monthly premium Standard[2]	Monthly premium Reduced[1]
Historical data:						
1967	$40	$10	—	$5.00	—	—
1968	40	10	$20	5.00	—	—
1969	44	11	22	5.50	—	—
1970	52	13	26	6.50	—	—
1971	60	15	30	7.50	—	—
1972	68	17	34	8.50	—	—
1973	72	18	36	9.00	$33	—
1974	84	21	42	10.50	36	—
1975	92	23	46	11.50	40	—
1976	104	26	52	13.00	45	—
1977	124	31	62	15.50	54	—
1978	144	36	72	18.00	63	—
1979	160	40	80	20.00	69	—
1980	180	45	90	22.50	78	—
1981	204	51	102	25.50	89	—
1982	260	65	130	32.50	113	—
1983	304	76	152	38.00	113	—
1984	356	89	178	44.50	155	—
1985	400	100	200	50.00	174	—
1986	492	123	246	61.50	214	—
1987	520	130	260	65.00	226	—
1988	540	135	270	67.50	234	—
1989[3]	560	—	—	25.50	156	—
1990	592	148	296	74.00	175	—
1991	628	157	314	78.50	177	—
1992	652	163	326	81.50	192	—
1993	676	169	338	84.50	221	—
1994	696	174	348	87.00	245	$184
1995	716	179	358	89.50	261	183
1996	736	184	368	92.00	289	188
1997	760	190	380	95.00	311	187
1998	764	191	382	95.50	309	170
1999	768	192	384	96.00	309	170
2000	776	194	388	97.00	301	166
2001	792	198	396	99.00	300	165
2002	812	203	406	101.50	319	175
2003	840	210	420	105.00	316	174
2004	876	219	438	109.50	343	189
Intermediate estimates:						
2005	916	229	458	114.50	376	207
2006	956	239	478	119.50	393	216
2007	1,000	250	500	125.00	411	226
2008	1,048	262	524	131.00	428	235
2009	1,100	275	550	137.50	446	245
2010	1,152	288	576	144.00	463	255
2011	1,208	302	604	151.00	479	263
2012	1,264	316	632	158.00	495	272
2013	1,324	331	662	165.50	512	282

[1]Amounts shown are effective for calendar years.
[2]Amounts shown for 1967-1982 are for the 12-month periods ending June 30; amount shown for 1983 is for the period July 1, 1982 through December 31, 1983; amounts shown for 1984 and later are for calendar years.
[3]Anomalies in the 1989 values are due to the Medicare Catastrophic Coverage Act of 1988. Most of the provisions of the Act were repealed the following year.

The *Federal Register* notice announcing the HI deductible and coinsurance amounts for 2004 included an estimate of the aggregate cost to HI beneficiaries for the changes in the deductible and coinsurance amounts from 2003 to 2004. At the time the notice was published, it was estimated that in 2004 there will be 9.4 million inpatient deductibles paid at $876 each, 2.5 million inpatient days subject to coinsurance at $219 per day (for hospital days 61 through 90), 1.2 million lifetime reserve days subject to coinsurance at $438 per day, and 28.2 million extended care days subject to coinsurance at $109.50 day. Similarly, it was estimated that in 2003 there were 9.2 million deductibles paid at $840 each, 2.5 million days subject to coinsurance at $210 per day (for hospital days 61 through 90), 1.1 million lifetime reserve days subject to coinsurance at $420 per day, and 27.7 million extended care days subject to coinsurance at $105 per day. Therefore, the total increase in cost to beneficiaries was estimated to be $720 million, due to (1) the increase in the inpatient deductible and coinsurance amounts, and (2) the change in the number of deductibles and daily coinsurance amounts paid.

Table IV.C2 displays the SMI cost-sharing and premium amounts for Parts B and D. The projected values for future years are based on the intermediate set of assumptions used in estimating the operations of the Part B and Part D accounts. As a result, these values are estimates, and the actual amounts are likely to be somewhat different as experience emerges.

Table IV.C2.—SMI Cost Sharing and Premium Amounts

Calendar year	Part B Monthly premium[1]	Part B Annual deductible	Part D Average premium	Part D Deductible	Part D Initial benefit limit	Part D Catastrophic threshold
1967	$3.00	$50	—	—	—	—
1968	4.00	50	—	—	—	—
1969	4.00	50	—	—	—	—
1970	4.00	50	—	—	—	—
1971	5.30	50	—	—	—	—
1972	5.60	50	—	—	—	—
1973	5.80	60	—	—	—	—
1974	6.30[2]	60	—	—	—	—
1975	6.70	60	—	—	—	—
1976	6.70	60	—	—	—	—
1977	7.20	60	—	—	—	—
1978	7.70	60	—	—	—	—
1979	8.20	60	—	—	—	—
1980	8.70	60	—	—	—	—
1981	9.60	60	—	—	—	—
1982	11.00	75	—	—	—	—
1983	12.20	75	—	—	—	—
1984	14.60	75	—	—	—	—
1985	15.50	75	—	—	—	—
1986	15.50	75	—	—	—	—
1987	17.90	75	—	—	—	—
1988	24.80	75	—	—	—	—
1989[3]	31.90	75	—	—	—	—
1990	28.60	75	—	—	—	—
1991	29.90	100	—	—	—	—
1992	31.80	100	—	—	—	—
1993	36.60	100	—	—	—	—
1994	41.10	100	—	—	—	—
1995	46.10	100	—	—	—	—
1996	42.50	100	—	—	—	—
1997	43.80	100	—	—	—	—
1998	43.80	100	—	—	—	—
1999	45.50	100	—	—	—	—
2000	45.50	100	—	—	—	—
2001	50.00	100	—	—	—	—
2002	54.00	100	—	—	—	—
2003	58.70	100	—	—	—	—
2004	66.60	100	—	—	—	—
Intermediate estimates:						
2005	78.10	110	—	—	—	—
2006	80.00	113	$37.23	$250	$2,250	$3,600
2007	82.00	116	40.50	275	2,480	3,950
2008	85.60	121	43.51	300	2,690	4,300
2009	88.90	126	46.54	320	2,890	4,600
2010	92.20	131	49.63	345	3,090	4,950
2011	95.60	136	52.64	365	3,300	5,250
2012	99.50	142	56.24	390	3,490	5,600
2013	104.70	149	60.78	420	3,790	6,050

[1]Amounts shown for 1967-1982 are for the 12-month periods ending June 30; amounts shown for 1983 are for the period July 1, 1982 through December 31, 1983; amounts shown for 1984 and later are for calendar years.

[2]In accordance with limitations on the costs of health care imposed under Phase III of the Economic Stabilization program, the standard premium rates for July and August 1973 were set at $5.80 and $6.10, respectively. Effective September 1973, the rate increased to $6.30.

[3]Anomalies in the 1989 values are due to the Medicare Catastrophic Coverage Act of 1988. Most of the provisions of the Act were repealed the following year.

The Part B monthly premiums displayed in table IV.C2 are the standard premium rates paid by most Part B enrollees. However,

there are three provisions that alter the premium rate for certain Part B enrollees. First, there is a premium surcharge for those beneficiaries who enroll after their initial enrollment period. Second, beginning in 2007, there is a higher "income-related" premium for those individuals whose modified adjusted gross income exceeds a specified threshold. Those individuals exceeding the threshold will pay premiums covering 35, 50, 65, or 80 percent of the average program cost for aged beneficiaries, depending on their income level, compared to the standard premium covering 25 percent. In 2007 the threshold will be $80,000 for an individual tax return and $160,000 for a joint return. The thresholds will be indexed to inflation in subsequent years. These higher income-related premiums will be phased in over the 5-year period 2007-2011. Finally, the "hold-harmless" provision lowers the premium rate for certain individuals who have their premium deducted from their Social Security check. On an individual basis, this provision limits the dollar increase in the Part B premium to the dollar increase in the individual's Social Security check. As a result, the person affected pays a lower Part B premium, and the net amount of the individual's Social Security check does not decrease despite the greater increase in the premium.

Most services under Part B are subject to an annual deductible and coinsurance. The annual deductible has been set in statute through 2005. Thereafter, it will increase with the increase in the Part B aged actuarial rate to approximate the growth in per capita Part B expenditures. After meeting the deductible, the beneficiary pays an amount equal to the product of the coinsurance percentage and the remaining allowed charges. The coinsurance percentage is 20 percent except for outpatient psychiatric services, which have a 50-percent coinsurance, and most services currently reimbursed under the outpatient hospital prospective payment system (OPPS). Under the OPPS, the coinsurance percentage varies by service but currently falls in the range of 20-50 percent. The OPPS coinsurance percentages will gradually decrease over time until they reach 20 percent for each OPPS service. For those services not subject to either the deductible or coinsurance (clinical lab tests, home health agency services, and some preventive care services), the beneficiary pays nothing.

The Part D average premiums displayed in table IV.C2 are the estimated national weighted average premiums. The actual premium a beneficiary pays will vary according to the plan in which the beneficiary is enrolled. Some will pay lower premiums than those

displayed in table IV.C2, and others will pay more. As with Part B, there is a late enrollment penalty for those beneficiaries enrolling after their initial enrollment period. Furthermore, there are premium and cost-sharing subsidies for those beneficiaries with incomes less than 150 percent of the Federal poverty level and with assets less than $10,000 for an individual and $20,000 for a couple.

Under Part D, there is an initial deductible. After meeting the deductible, the beneficiary pays 25 percent of the remaining costs up to the initial benefit limit. Beyond this limit, the beneficiary pays all the drug costs until his or her total out-of-pocket expenditures reach the catastrophic threshold. (Included in this total are the deductible and coinsurance payments for expenses up to the initial benefit limit.) Thereafter, the beneficiary pays the greater of (1) 5 percent of the drug cost, or (2) $2 for generic or preferred multiple-source drugs or $5 for preferred single-source drugs.

D. SUPPLEMENTARY ASSESSMENT OF UNCERTAINTY IN PART B COST PROJECTIONS

This appendix presents an additional way to help assess the uncertainty of Part B cost projections. It is intended to supplement the traditional methods of examining such uncertainty and to illustrate the potential value of stochastic techniques. The analysis offered here uses statistical methods to help quantify the range and likelihood of future Part B costs and trust fund assets and should be viewed as a tentative application of stochastic techniques to the Part B financial projections, subject to refinement over time as more data become available.

1. Background

Financial projections, including those for Medicare, are necessarily uncertain because the future is unknown. Medicare projections depend on numerous assumptions, as outlined in sections I.D and III.B.1 of this report. Variations between actual future cost factors (for example, growth in the utilization of medical services) and the corresponding assumptions will almost always cause future costs to vary from the estimate.

Uncertainty in Medicare costs is traditionally illustrated by using three alternative sets of assumptions (intermediate, high cost, and low cost). The high cost alternative assumes a faster growth rate in Part B expenditures in every year. Similarly, the low cost alternative assumes slower growth rates in all years. These growth differentials are set deterministically, to illustrate the impact on Part B costs of sustained faster or slower growth that could reasonably be expected to occur. Using the traditional methodology alone, it is not possible to quantify the probability of either outcome or the likelihood of a future result outside of the range defined by the high cost and low cost alternatives.

From time to time, expert panels of actuaries and economists convene to review the assumptions and methodology underlying the Medicare and Social Security Trustees Reports. Each of the past four expert panels has recommended consideration of alternative analytical techniques to supplement the current methodology for assessing the uncertainty in cost projections and to add insight into the potential range of future variation. The 1991 Advisory Council Technical Panel on Social Security recommended the "development of methods to quantify the uncertainty of short- and long-range forecasts, both for particular assumptions and projections." Similarly, the 1994-95

Advisory Council Technical Panel recommended that "stochastic analysis should be used to examine more explicitly the probabilities of alternative projections." The 1999 Social Security Advisory Board Technical Panel agreed, stating that they "follow previous panels in strongly recommending efforts toward stochastic modeling or similar techniques that are better able to capture the interrelationships among assumptions." They added, "what we seek is a method of displaying to policy makers and the public just how uncertain is some average cost outcome or date of exhaustion of the Trust Funds, and what are the probabilities that events will be close to or far away from that result." In their review of the Trustees Reports, the 2000 Medicare Technical Review Panel recommended the continued use of stochastic methods for Medicare and noted that "although stochastic modeling is complicated, it can result in enhanced insight into the uncertainty associated with health care cost projections."

The projections shown in this appendix represent the preliminary application of such techniques to the short-range Part B cost projections.

2. Methodology

For health care cost projections, the most critical assumption is generally the rate of increase in average per beneficiary medical costs.[38] In the past there have been wide variations in such growth rates for Part B. The statistical methods employed here (also referred to as "stochastic" projection techniques) measure past variation in per beneficiary growth rates relative to the average and assume that similar variation will occur in the future, relative to the intermediate growth rate assumptions for the short-range projection period.

Past variations in benefit expenditure growth rates are examined separately by service type (for example, physician, hospital, and home health) and by eligibility category (aged, disabled, or end-stage renal disease), using data from the first quarter of 1991 through the third quarter of 2003. For each future year, these variations are combined statistically to develop a measure of variation in total Part B benefit

[38]Such cost increases reflect changes in (1) the prices of specific medical services, (2) the utilization of services, and (3) the average complexity or "intensity" of services.

expenditures per beneficiary.[39] Individual 10-year projection scenarios are generated by randomly selecting each year's per beneficiary Part B cost increase from a frequency distribution of increases based on past variation and the intermediate growth rate assumption for the given year.[40] Two thousand short-range scenarios are generated and benefit expenditures are projected for each individual scenario. A distribution of the resulting cost projections is calculated and used to assess the possible variation in future expenditure levels and trust fund operations.

The stochastic approach provides several potential benefits to supplement the traditional projections. This method provides an estimated probability of occurrence for various possible outcomes, rather than just an illustrative outcome. For example, the likelihood that Part B expenditures would exceed a specified level within 10 years can be estimated using stochastic techniques. Similarly, the likelihood of an abrupt decline in assets in the Part B account of the SMI trust fund can be evaluated using these techniques, as illustrated in section IV.D3 of this appendix.

The projections shown in this appendix should be considered only as a preliminary attempt to augment the traditional projections that are made for Part B. The method presented, like any projection model, is only a tool; it can provide useful—but limited—information regarding an unknowable future. Stochastic techniques can improve our understanding of possible future developments but cannot "guarantee" any specific outcome. In particular:

- The stochastic techniques used here rely heavily on past experience. The future may differ from the past in fundamental ways that generally cannot be anticipated or reflected in a statistical model. For example, most of the past experience underlying the statistical model is drawn from years that precede implementation of the Part B outpatient hospital prospective payment system (which started in August 2000). The range of future variation in outpatient hospital expenditures (and total

[39]For this calculation, variation in each service category is weighted by the expected level of benefit expenditures per beneficiary for that category for the year. The calculation also reflects the "covariances" among the different categories—for example, the probability that a faster-than-average increase in physician expenditures would be associated with an above-average increase in spending for diagnostic laboratory tests, outpatient hospital procedures, and other services.

[40]These future increases are assumed to be normally distributed, based on the near-normality of past increases about their average.

Part B costs) may therefore differ from what is reflected in the model.

- Actual Part B payment operations are very complex. The stochastic model used is a simplification of real-world relationships and may not be sufficiently sophisticated to match future behavior. Many possible models could be used; the one employed here may not be the best model possible (if there indeed is a unique "best" model).

- The model is based on the underlying data. A limited number of years of data are available, and the data can be subject to problems, such as measurement errors or inconsistent definitions over time. Any such problems would, of course, affect the model.

- Potential variations in costs due to factors other than growth in per beneficiary expenditures are not considered. For example, longer life expectancies or variations in net immigration could affect the total number of Part B beneficiaries and therefore total expenditures.

- Finally, the methodology described here models future expenditure uncertainty on the assumption that the intermediate assumptions produce the most likely future year-by-year cost increases. Actual future growth rates could, on average, differ from these assumptions.

For these reasons, the stochastic projections shown in this appendix should be viewed cautiously and used with awareness of their limitations.[41] Many refinements to the methodology are possible. For example, the assumed average future cost increases could be allowed to differ from the increases of the intermediate assumptions. Also, separate cost increases could be generated by type of service rather than in aggregate. Other factors, such as the demographic assumptions, could be allowed to vary rather than just the per beneficiary Part B cost increases.

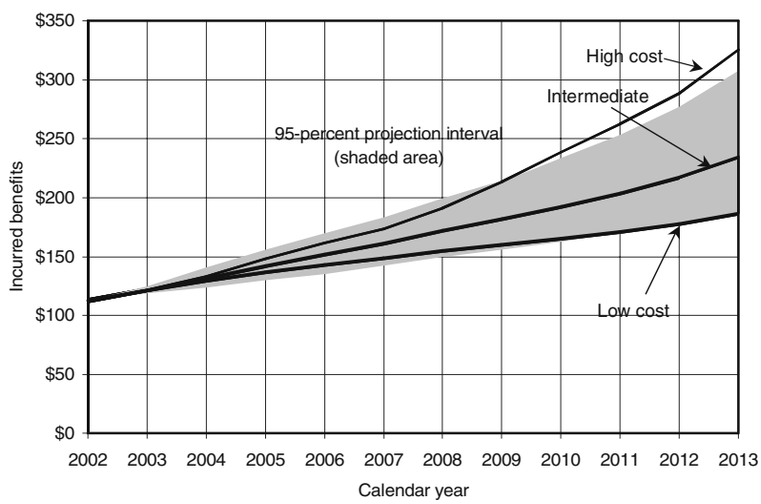
3. Results

The shaded region in figure IV.D1 illustrates the range within which future Part B benefit expenditures are estimated to occur 95 percent

[41]Many of these limitations also apply to the traditional projection methods used in the annual Trustees Report and, indeed, to virtually any estimation technique. Different methods have different relative advantages and disadvantages. Use of multiple techniques has the potential to improve our overall understanding of possible future developments.

of the time, based on the stochastic projections. In other words, actual future expenditures in a given year would be expected to exceed the upper bound only 2.5 percent of the time or to fall below the lower bound 2.5 percent of the time.[42]

Figure IV.D1.—95-Percent Projection Interval for Part B Incurred Benefits [In billions]



For comparison, the benefit levels projected under the intermediate, high cost, and low cost alternatives are also shown in figure IV.D1. With both projection methodologies, the range of benefits widens as the projections move further into the future, reflecting increasing uncertainty. The high cost alternative is initially well below the upper bound for the 95-percent stochastic projection interval but passes the upper bound by 2010 and stays above it through the remainder of the 10-year projection period. In contrast, the low cost alternative exceeds the lower bound for the 95-percent interval initially and reaches the boundary by 2013. The intermediate estimate is similar to the 50th percentile of the stochastic distribution, as one would anticipate because the stochastic analysis is tied to the intermediate assumptions as the expected case.

The levels of Part B benefits corresponding to various percentiles from the stochastic benefit distribution are shown in table IV.D1. The

[42]These estimated probabilities apply to a given projection year and not to all years simultaneously. Based on the stochastic model, the probability of costs exceeding the upper 95-percent limit in all 10 years would be substantially smaller than 2.5 percent.

percentiles represent the estimated probabilities that actual future Part B expenditures in a given year would be less than or equal to the expenditure amount shown. For example, the stochastic projections suggest a 5-percent probability that expenditures would be $195.9 billion or less in 2013. Similarly, there is an estimated 50-50 probability that expenditures in 2013 would be lower—or higher—than the 50th-percentile projection of $234.6 billion (also known as the median projection).

Table IV.D1.—Estimated Incurred Part B Benefit Expenditures, by Percentile of Projection Distribution

[In billions]

	Percentiles				
Calendar year	2.5	5.0	50.0	95.0	97.5
2003	$118.6	$119.0	$121.7	$124.4	$124.9
2004	123.7	125.1	132.2	139.5	141.0
2005	130.3	132.2	142.5	154.2	155.9
2006	135.5	138.2	152.1	167.7	170.0
2007	142.4	145.1	161.6	179.6	183.5
2008	149.8	153.0	171.9	193.9	199.3
2009	155.8	159.6	182.1	208.1	214.6
2010	162.6	167.2	192.3	223.7	228.9
2011	170.2	174.0	204.1	238.8	244.5
2012	176.3	183.3	217.5	257.1	265.9
2013	188.7	195.9	234.6	281.3	289.5

Note: Intermediate estimates are similar to the 50th-percentile benefits. See section III.B for specific expenditure projections under the intermediate assumptions.

Table IV.D2 presents the stochastic percentiles that correspond to the traditional intermediate, high, and low cost projections. For example, based on the stochastic model, the estimated probability that Part B expenditures in 2005 would be less than the low cost projection is 20.8 percent. Similarly, the estimated probability that costs would be at or below the high cost projection in 2008 is 92.3 percent.

As noted before, these probabilities are estimated, based on the statistical methods described in the previous section, and are subject to the various limitations inherent in such methods. Accordingly, the estimates provide a reasonable guide to possible outcomes but could be invalidated by unanticipated changes.

Table IV.D2.—Percentiles of Part B Benefit Expenditure Distribution Corresponding to Low, Intermediate, and High Cost Estimates

Calendar year	Low cost	Intermediate	High cost
2003	49.3%	49.3%	49.3%
2004	30.4	51.4	58.8
2005	20.8	51.2	78.0
2006	15.5	50.3	84.9
2007	11.2	51.0	85.7
2008	8.1	51.9	92.3
2009	5.6	50.7	97.2
2010	4.2	51.6	98.5
2011	3.4	50.4	98.9
2012	3.1	50.2	99.1
2013	1.9	50.4	99.3

The comparison of projection results in figure IV.D1 and table IV.D2 indicates that the lower range of the 95-percent stochastic projection is initially lower than the level of the low cost alternatives. Toward the end of the 10-year projection period, however, the levels are comparable. Similarly, the upper range of the 95-percent stochastic projection is initially higher than the level of the high cost alternatives. Toward the end of the 10-year projection period, however, the level of the high cost alternative is higher than the upper range of the 95-percent stochastic projection. This result illustrates the different natures of the two projection methodologies. The high and low cost alternatives assume expenditure increases of roughly 2 percent higher or lower, respectively, than the intermediate assumption in every year.[43] In contrast, Part B growth rates under the stochastic projection can vary randomly by as much as 8 percentage points higher or lower than the intermediate assumption for a specific year. Thus, the stochastic projections suggest that the uncertainty of future Part B expenditures is somewhat greater over the next few years than illustrated by the traditional alternative projections. Over longer periods, however, the probability diminishes that Part B costs would increase 2 percent faster (or slower) than the intermediate assumption in *every* year. The stochastic model estimates that, by the end of the 10-year period, the likelihood of costs exceeding the high cost projection is small (0.7 percent) and that the probability of falling below the low cost alternative is also small (1.9 percent).

The statistical methodology described in this appendix can also be used to help assess the adequacy of financing and assets for the Part B account of the SMI trust fund. As noted elsewhere in this report, Part B is considered to be automatically in financial balance because premium and general revenue financing levels are reestablished annually to match expected expenditures for the following year. Thus, in contrast to OASDI and HI, where financing can be changed only through legislation, Part B should always be adequately financed so long as premiums and general revenue levels are accurately set and an adequate trust fund balance is maintained. In this regard, the stochastic methods used in this appendix can help determine if an unexpected major change in Part B expenditure levels is likely and whether such a change could jeopardize asset adequacy prior to the next premium determination. This assessment can be

[43]A more detailed description of the high and low cost assumptions is given in section III.B.

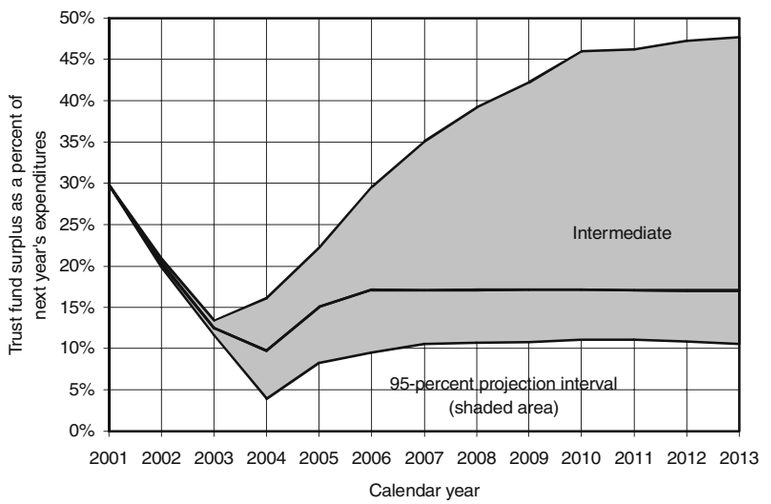
used to evaluate the sufficiency of existing procedures for setting premiums and the adequacy of traditional trust fund reserve targets.

The assets of the Part B account of the SMI trust fund should be sufficient at any time to cover the costs of covered services that have been performed but not yet reimbursed (referred to as "incurred but unpaid" claims). In addition, assets should be sufficient to prevent account depletion in the event of unexpectedly high expenditures. The adequacy of the Part B account of the SMI trust fund for these purposes is generally measured by comparing the account's assets minus liabilities (for the incurred but unpaid claims) with expenditures for the following year, as described in more detail in section II.C2. Premium rates and matching general fund transfers are set each year based on estimates of the following 2 years' expenditures.[44] The sensitivity of the asset reserve ratio to above- or below-average expenditure growth over the 2 years can be evaluated using the stochastic projections.

The estimated financial status of the Part B account of the SMI trust fund, based on the stochastic projections, is shown in figure IV.D2. This graph displays the 95-percent projection interval for the ratio of trust fund assets less liabilities at the end of a year to the following year's expenditures. The results show a reasonable range of surplus values over the 10-year period, reflecting the annual redetermination of Part B premiums and general revenue financing. If expenditure levels begin to drift away from expectations, financing is adjusted for the following year, thereby minimizing the degree to which fund assets would depart from desired levels. The figure also illustrates the impact of recent legislation, which increased Part B costs after the financing had been determined for the year, and the intentional gradual movement from the existing financial status toward the desired reserve level of approximately 15 to 20 percent of the following year's expenditures.

[44]Expenditures in the following year determine the level of assets and liabilities at the end of that year; expenditures in the second year are used in the denominator of the trust fund reserve ratio and thus affect the level of this ratio.

Figure IV.D2.—95-Percent Projection Interval for Financing Status of Part B Account of SMI Trust Fund

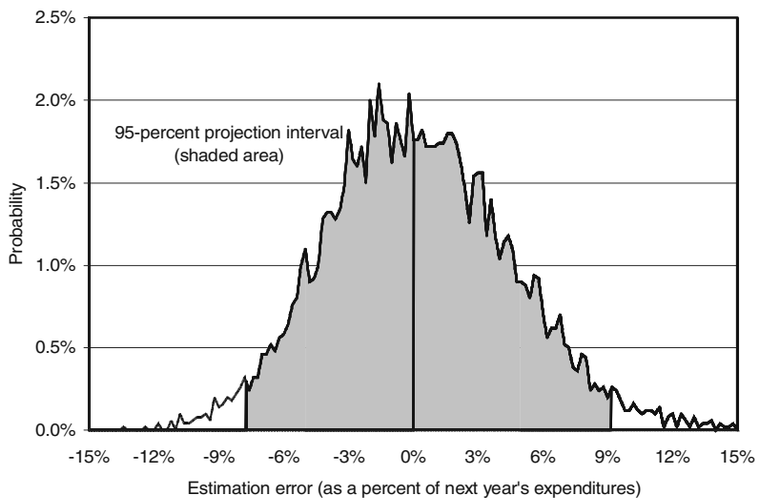


The stochastic projections shown in figure IV.D2 suggest that the target reserve level and annual redetermination of Part B financing should be sufficient to prevent the assets of the Part B account of the SMI trust fund from falling below acceptable levels. The lower bound of the 95-percent range remains in the vicinity of 10 percent after 2005. Thus, with a target fund ratio of 15 to 20 percent, faster-than-expected expenditure growth appears unlikely to result in actual levels below 10 percent. The supplementary assessment of uncertainty, based on the statistical approach shown in this appendix, supports the existing standards for ensuring fund solvency.

As noted previously, Part B financing is set for a future year based on projections of benefit expenditures. For example, the monthly premium and corresponding general fund transfers for 2004 were set in 2003 based on projections of benefit expenditures for 2004 and 2005. In practice, however, the actual benefit levels are likely to differ from those expected when the financing is determined. Although a specific reserve asset level is anticipated, the subsequent actual level will invariably differ. Figure IV.D3 shows an estimated frequency distribution for such disparities, to assess their magnitude and likelihood. The estimation error for a given year is defined as the net surplus ratio at the end of the year, based on the stochastic projection, minus the expected surplus ratio at the time that financing is established. The frequency distribution shows the

probabilities of various differences from the expected trust fund status.

Figure IV.D3.—Frequency Distribution of Estimation Errors for Part B Account of SMI Trust Fund Surplus Ratio (Stochastic "Actual" minus Estimated Surplus as a Percent of Next Year's Expenditures)



The stochastic analysis suggests that, on average, 95 percent of the estimation errors would be expected to fall between about –8 percent and 9 percent. The largest adverse differences generated by the stochastic projections were in the vicinity of –13 percent. These results are also consistent with the traditional reserve level target of 15 to 20 percent.

4. Summary

The stochastic approach presented in this appendix is intended to supplement the traditional projection methods used to evaluate the financial status of the Part B account of the SMI trust fund. The approach can help quantify the uncertainty of future Part B cost projections but is preliminary and subject to further refinement. The results suggest that the range of variation defined by the traditional high and low cost alternatives is initially somewhat narrower than the range determined by the tentative application of stochastic modeling but about the same at the end of the 10-year projection period. The projections support the view that future Part B costs could vary substantially from the intermediate projection, due to

variations in future annual cost increases. The statistical analysis also reinforces the conclusion that the current methods of establishing Part B premiums and general revenue financing should prevent depletion of the trust fund, even under conditions of sustained adverse cost experience.

E. MEDICARE AND SOCIAL SECURITY TRUST FUNDS AND THE FEDERAL BUDGET

The financial operations of Medicare and Social Security can be viewed in the context of the programs' trust funds or in the context of the overall Federal Budget. The financial status of the trust funds differs fundamentally from the impact of these programs on the budget, and the relationship between these two perspectives is often misunderstood. Each perspective is appropriate and important for its intended purpose; this appendix attempts to clarify their roles and relationship.

By law, the annual reports of the Medicare and Social Security Boards of Trustees to Congress focus on the financial status of the programs' trust funds—that is, whether these funds have sufficient revenues and assets to enable the payment of benefits and administrative expenses. This "trust fund perspective" is important, because the existence of trust fund assets provides the statutory authority to make such payments without the need for an appropriation from Congress. Medicare and Social Security benefits can be paid only if the relevant trust fund has sufficient income or assets.

The trust fund perspective does not encompass the interrelationship between the Medicare and Social Security trust funds and the overall Federal Budget. The budget is a comprehensive display of all Federal activities, whether financed through trust funds or from the general fund of the Treasury. This broader focus may appropriately be termed the "budget perspective" or "government-wide perspective" and is officially presented in the *Budget of the United States Government* and in the *Financial Report of the United States Government*.

The majority of Medicare and Social Security costs are financed through payroll taxes, income taxes on Social Security benefits, and Medicare premiums. In addition to these "earmarked" receipts from workers, employers, and beneficiaries, Medicare and Social Security rely on Federal general fund revenues for some of their financing (principally for the SMI trust fund), and the trust funds are credited with interest payments on their accumulated assets as well. The financial status of a trust fund appropriately considers all sources of financing provided under current law for that fund, including the availability of trust fund assets that can be used to meet program expenditures. From the budget perspective, however, general fund transfers and interest payments to the trust funds, and asset

redemptions represent a draw on other Federal resources for which there is no earmarked source of revenue from the public.

In the past, general fund and interest payments for Medicare and Social Security were relatively small. These amounts have increased substantially over the last 2 decades, however, and the expected rapid future growth of Medicare and Social Security will make their interaction with the Federal Budget increasingly important. As the difference between earmarked and total trust fund revenues grows, the financial operations of Social Security and Medicare can appear markedly different depending on which of the two perspectives is used.[45]

Illustration with Actual Data for 2003

The trust fund and budget perspectives can be illustrated with actual data on Federal financial operations for fiscal year 2003, as shown in table IV.E1. The first three columns show revenues and expenditures for HI, SMI, and OASDI, respectively, and the fourth column is the sum of these three columns. The fifth column shows total revenues and expenditures for all other government programs (which includes the general fund account of the Treasury) and the final column is the sum of the "Combined" and "Other Government" columns. Earmarked revenues from the public are shown separately from revenues from other government accounts (general revenue transfers and interest credits). Note that the transfers and interest credits received by the trust funds appear in total as negative entries under the "Other Government" column and are thus offsetting when summed for the total budget in the final column. These two intragovernmental transactions are key to the differences between the two perspectives.

[45]A more complete treatment of this topic can be found on www.treas.gov/offices/economic-policy/social_security.html.

Table IV.E1.—Annual Revenues and Expenditures for Medicare and Social Security Trust Funds and the Total Federal Budget, Fiscal Year 2003

(In billions)

Revenue and expenditures categories	Trust funds HI	SMI	OASDI	Combined	Other government	Total[1]
Revenues from public:						
Payroll and benefit taxes	$158.2	—	$546.7	$704.9	—	$704.9
Premiums	2.4	$26.8	—	29.2	—	29.2
Other taxes and fees	—	—	—	—	$1,048.0	1,048.0
Total	160.6	26.8	546.7	734.1	1,048.0	1,782.1
Total expenditures to public[2]	153.8	124.1	474.7	752.6	1,404.3	2,156.9
Net Results for Budget Perspective	**6.8**	**-97.3**	**72.0**	**-18.5**	**-356.3**	**-374.8**
Revenues from other government accounts:						
Transfers	0.5	80.9	—	81.4	-81.4	0.0
Interest credits	14.8	2.5	83.5	100.8	-100.8	0.0
Total	15.3	83.4	83.5	182.2	-182.2	0.0
Net Results for Trust Fund Perspective	**22.1**	**-13.9**	**155.5**	**163.7**	**n/a**	**n/a**

[1]This column is the sum of the preceding two columns and shows data for the total Federal Budget. The figure $374.8 billion was the total Federal Budget deficit for fiscal year 2003.
[2]The OASDI figure includes $3.7 billion transferred to the Railroad Retirement Board for benefit payments.

Notes: 1. For comparison, HI taxable payroll, OASDI taxable payroll, and GDP were $5,275 billion, $4,338 billion, and $10,937 billion, respectively, in 2003.
2. Totals do not necessarily equal the sums of rounded components.
3. "n/a" indicates not applicable.

The *trust fund perspective* reflects both categories of revenues for each trust fund. For HI, revenues from the public plus transfers/credits from other government accounts exceeded total expenditures by $22.1 billion in 2003, as shown at the bottom of the first column.[46] For the SMI trust fund, the statutory revenues from beneficiary premiums, general revenue transfers, and interest earnings collectively fell short of expenditures by $13.9 billion, requiring asset redemptions of that amount to enable the payment of full SMI benefits and other costs in 2003. Note that both the general revenue transfers from other government accounts and the asset redemptions are appropriately viewed as financial resources from the trust fund perspective, since they are available under current law to

[46]Surpluses of revenues from the public over expenditures to the public are invested in special Treasury securities and thereby represent a loan from the trust funds to the general fund of the federal government. These loans reduce the amount that the general fund has to borrow from the public to finance a deficit (or likewise increase the amount of debt paid off if there is a surplus). Interest is credited to the trust funds while the securities are being held. Trust fund securities can be redeemed at any time if needed to help meet program expenditures. Thus, the accumulation of fund assets creates budget commitments for future years when interest earnings and asset redemptions are used to meet expenditures.

help meet trust fund outlays. For OASDI, total trust fund revenues from all sources (including $83.5 billion in interest payments) exceeded total expenditures by $155.5 billion.

From the *government-wide* or *budget perspective*, only earmarked revenues received from the public—taxes on payroll and benefits, plus premiums—and expenditures made to the public are important for the final balance. For HI, the difference between such revenues ($160.6 billion) and total expenditures made to the public ($153.8 billion) was $6.8 billion in 2003, indicating that HI had a small, positive effect on the overall budget in 2003. For SMI, beneficiary premiums are the only source of revenues from the public and represent only about 25 percent of total expenditures. The remaining $97.3 billion in 2003 outlays represented a substantial net draw on the Federal Budget in that year.[47] For OASDI, the difference between revenues from the public ($546.7 billion) and total expenditures was $72.0 billion, indicating that OASDI had a large, positive effect on the overall budget last year.

Thus, from the trust fund perspective, HI and OASDI had significant annual surpluses and SMI had a small annual deficit in 2003. From the budget perspective, HI and OASDI made positive contributions to the Federal Budget, though by amounts smaller than the respective trust fund surpluses, and SMI had a substantial draw on the budget. HI, SMI, and OASDI collectively had a large trust fund surplus of $163.7 billion in fiscal year 2003, but a small net draw of $18.5 billion on the budget.

It is important to recognize that each viewpoint is appropriate for its intended purpose but that one perspective cannot be used to answer questions related to the other. In the case of SMI, under current-law financing the trust fund will always be in balance and there will always be a net draw on the Federal Budget. In the case of HI, trust fund surpluses in a given year may occur with either a positive or negative direct impact on the budget for that year. Conversely, a positive or negative budget impact from HI offers minimal insight into whether its trust fund has sufficient total revenues and assets to permit payment of benefits.

The next section illustrates the magnitude of the long-range difference between projected expenditures and revenues for Medicare

[47]Three types of trust fund transactions comprised this total budget obligation: $80.9 billion was drawn in the form of general revenue transfers, $2.5 billion in interest payments, and the remaining $13.9 billion in asset redemptions.

and Social Security, under both the trust fund and budget perspectives.

Future Obligations of the Trust Funds and the Budget

Table IV.E2 collects from the Medicare and OASDI Trustees Reports the present values of projected future revenues and expenditures over the next 75 years under current law. For HI and OASDI, tax revenues from the public are projected to fall short of statutory expenditures by $8.5 trillion and $5.2 trillion, respectively, in present value terms.[48]

Table IV.E2.—Present Values of Projected Revenue and Cost Components of 75-Year Open Group Obligations for HI, SMI and OASDI
(In trillions, as of 1/1/2004)

Revenue and expenditure categories	HI	SMI	OASDI	Combined
Revenues from public:				
Payroll and benefit taxes	$9.0	—	$27.7	$36.7
Premiums	0.0	$6.6	—	6.6
Other taxes and fees	—	—	—	—
Total	9.0	6.6	27.7	43.3
Total costs to public	17.5	26.1	32.9	76.5
Net Results for Budget Perspective	**-8.5**	**-19.5**	**-5.2**	**-33.2**
Revenues from other government accounts:				
Transfers	0.0	19.5	0.0	19.5
Interest credits	n/a	n/a	n/a	n/a
Total	0.0	19.5	0.0	19.5
Trust fund assets on 1/1/2004	0.3	0.0[1]	1.5	1.8
Net Results for Trust Fund Perspective	**-8.2**	**0.0[1]**	**-3.7**	**-11.9**

[1]Less than $50 billion.

Notes: 1. For comparison, HI taxable payroll, OASDI taxable payroll, and GDP were $272.4 trillion, $211.1 trillion, and $584.9 trillion, respectively, over the next 75 years.
2. Totals do not necessarily equal the sums of rounded components.
3. "n/a" indicates not applicable.

[48]Interest income is not a factor in this table, as dollar amounts are in present value terms.

From the budget perspective, these are the additional amounts that would be needed in order to pay HI and OASDI benefits and other costs at the level scheduled under current law over the next 75 years. From the trust fund perspective, the amounts needed are smaller by the value of the accumulated assets in the respective trust funds—$0.3 trillion for HI and $1.5 trillion for OASDI—that could be drawn down to cover a part of the projected shortfall in tax revenues. Two points about this comparison are important to note:

- Other than asset redemptions and interest payments, no provision exists under current law to address the projected HI and OASDI financial imbalances. Once assets are exhausted, expenditures cannot be made except to the extent covered by ongoing tax receipts. In this extreme—and politically unlikely—situation, further transfers from the general fund would require new legislation.

- Accordingly, from a trust fund perspective the long-range HI and OASDI deficits reflect the net imbalance after trust fund assets have been redeemed. From a government-wide perspective, the deficits represent the cost of redeeming those assets plus the additional legislative authorization that would be required to fully satisfy future scheduled benefit payments.[49]

The situation for SMI is somewhat different. SMI expenditures for Part B and Part D are projected to exceed premium revenues by $19.5 trillion. General fund transfers of this amount will be needed to keep the SMI trust fund solvent for the next 75 years, and these transfers represent a formal budget requirement under current law. From the trust fund perspective, the present value of projected total premiums and general revenues equals the present value of future expenditures.

From the 75-year budget perspective, the present value of the additional resources that would be needed to meet projected expenditures, at current-law levels for the three programs combined, is $33.2 trillion.[50] To put this very large figure in perspective, it would

[49]In practice, the long-range HI and OASDI deficits could be addressed by reducing expenditures, increasing payroll or other earmarked tax revenues, implementing a general revenue subsidy, or some combination of such measures. For Medicare, in particular, legislation has frequently been enacted to slow the growth of expenditures.

[50]As noted previously, the long-range HI and OASDI financial imbalances could instead be partially addressed by expenditure reductions, thereby reducing the need for additional revenues. Similarly, SMI expenditure reductions would reduce the need for general fund transfers.

represent 5.7 percent of the present value of projected GDP over the same period ($585 trillion). The components of the $33.2-trillion total are:

Unfunded HI and OASDI obligations (trust fund perspective)[51]	$11.9 trillion	(2.0% of GDP)
HI and OASDI asset redemptions	$1.8 trillion	(0.3% of GDP)
SMI Part B and Part D general revenue financing	$19.5 trillion	(3.3% of GDP)

These resource needs would be in addition to the payroll taxes, benefit taxes, and premium payments scheduled under current law. As noted, the asset redemptions and SMI general revenue transfers represent formal budget commitments under current law, but no provision exists for covering the HI and OASDI trust fund deficits once assets are exhausted.

[51]Additional revenues and/or expenditure reductions totaling $11.9 trillion, together with asset redemptions, would cover the projected financial imbalance but would leave the HI and OASDI trust funds exhausted at the end of the 75-year period. The long-range actuarial deficit for HI and OASDI includes a cost factor to allow for a normal level of fund assets. See section II.B3 in this report, and section IV.B4 in the OASDI Trustees Report, for the numerical relationship between the actuarial deficit and the "unfunded obligations" of each program.

F. FISCAL YEAR HISTORICAL DATA AND PROJECTIONS THROUGH 2013

Tables IV.F1, IV.F2, IV.F3, IV.F4, and IV.F5 present estimates of the fiscal year operations of total Medicare, the HI trust fund, the SMI trust fund, the Part B account in the SMI trust fund, and the Part D account in the SMI trust fund, respectively. These tables correspond to the calendar-year trust fund operation tables shown in section II.

Table IV.F1.—Total Medicare Income, Expenditures, and Trust Fund Assets during Fiscal Years 1970-2013

[In billions]

Fiscal year	Total income	Total expenditures	Net change in assets	Assets at end of year
Historical data:				
1970	$7.5	$7.1	$0.3	$2.7
1975	16.9	14.8	2.1	11.3
1980	35.7	35.0	0.7	19.0
1985	75.5	71.4	4.1	31.9
1990	125.7	109.7	16.0	110.2
1995	173.0	180.1	-7.1	143.4
1996	203.2	194.3	8.9	152.3
1997	209.4	210.4	-1.0	151.3
1998	220.2	213.4	6.7	158.0
1999	238.3	212.0	26.3	184.3
2000	248.9	219.3	29.6	214.0
2001	266.3	241.2	25.2	239.2
2002	285.5	256.9	28.6	267.8
2003	286.0	277.8	8.2	275.9
Intermediate estimates:				
2004	307.7	304.5	3.1	279.1
2005	353.1	334.0	19.1	298.2
2006	435.3	409.9	25.4	323.6
2007	471.5	462.4	9.1	332.7
2008	501.3	493.8	7.4	340.2
2009	532.1	527.3	4.8	345.0
2010	564.7	561.0	3.7	348.7
2011	599.9	610.3	-10.4	338.3
2012	640.0	627.6	12.4	350.7
2013	686.0	690.6	-4.6	346.1

Table IV.F2.—Operations of the HI Trust Fund during Fiscal Years 1970-2013

[In billions]

	Income								Expenditures			Trust fund	
Fiscal year[1]	Payroll taxes	Income from taxation of benefits	Railroad Retirement account transfers	Reimburse-ment for uninsured persons	Premiums from voluntary enrollees	Payments for military wage credits	Interest and other[2,3]	Total	Benefit payments[3,4]	Adminis-trative expenses[5]	Total	Net change	Balance at end of year
Historical data:													
1970	$4.8	—	$0.1	$0.6	—	$0.0	$0.1	$5.6	$4.8	$0.1	$5.0	$0.7	$2.7
1975	11.3	—	0.1	0.5	$0.0	0.0	0.6	12.6	10.4	0.3	10.6	2.0	9.9
1980	23.2	—	0.2	0.7	0.0	0.1	1.1	25.4	23.8	0.5	24.3	1.1	14.5
1985	46.5	—	0.4	0.8	0.0	0.1	3.2	50.9	47.8	0.8	48.7	4.1[6]	21.3
1990	70.7	—	0.4	0.4	0.1	0.1	7.9	79.6	65.9	0.8	66.7	12.9	95.6
1995	98.1	$3.9	0.4	0.5	1.0	0.1	11.0	114.8	113.6	1.3	114.9	-0.0	129.5
1996	106.9	4.1	0.4	0.4	1.1	-2.3[7]	10.5	121.1	124.1	1.2	125.3	-4.2	125.3
1997	112.7	3.6	0.4	0.5	1.3	0.1	10.0	128.5	145.6[8]	1.7	137.8	-9.3	116.1
1998	121.9	5.1	0.4	0.0	1.3	0.1	9.4	138.2	135.5[8]	1.7	137.1	1.1	117.1
1999	134.4	6.6	0.4	0.7	1.4	0.1	9.5	153.0	129.5[8]	2.0	131.4	21.6	138.7
2000	137.7	8.8	0.5	0.5	1.4	0.0	10.8	159.7	127.9[8]	2.4	130.3	29.4	168.1
2001	151.9	4.9	0.5	0.5	1.4	-1.2[9]	12.8	171.0	139.4[8]	2.4	141.7	29.3	197.4
2002	151.6	10.9	0.4	0.4	1.5	0.0	14.9	179.8	145.6[8]	2.5	148.0	31.7	229.1
2003	149.8	8.3	0.4	0.4	1.6	0.0	15.2	175.8	151.3[8]	2.5	153.8	22.0	251.1
Intermediate estimates:													
2004	153.3	7.4	0.4	0.4	1.7	0.0	15.3	178.4	167.3	2.8	170.2	8.3	259.4
2005	167.2	9.0	0.4	0.3	1.9	0.0	15.3	194.1	182.9	2.8	185.7	8.4	267.8
2006	175.9	10.0	0.4	0.2	2.1	0.0	15.3	203.9	192.0	2.8	194.7	9.1	277.0
2007	185.0	11.0	0.4	0.2	2.2	0.0	15.3	214.2	206.0	2.8	208.7	5.4	282.4
2008	194.3	12.6	0.4	0.2	2.3	0.0	15.4	225.3	218.5	2.8	221.3	4.0	286.4
2009	203.8	14.0	0.4	0.2	2.5	0.0	15.6	236.6	232.3	2.9	235.2	1.4	287.8
2010	215.1	14.8	0.5	0.2	2.6	0.0	15.6	248.9	246.2	2.9	249.2	-0.3	287.5
2011	226.2	17.1	0.5	0.2	2.8	0.0	15.5	262.3	268.1	3.0	271.2	-8.8	278.7
2012	236.4	19.9	0.5	0.3	2.9	0.0	15.2	275.2	271.1	3.1	274.2	0.9	279.6
2013	247.1	22.3	0.5	0.3	3.1	0.0	14.7	288.0	296.3	3.2	299.5	-11.5	268.1

[1]Fiscal years 1970 and 1975 consist of the 12 months ending on June 30 of each year; fiscal years 1980 and later consist of the 12 months ending on September 30 of each year.
[2]Other income includes recoveries of amounts reimbursed from the trust fund that are not obligations of the trust fund, receipts from the fraud and abuse control program, and a small amount of miscellaneous income.
[3]See footnote 2 of table II.B5.
[4]Includes costs of Peer Review Organizations from 1983 through 2001 (beginning with the implementation of the prospective payment system on October 1, 1983), and costs of Quality Improvement Organizations beginning in 2002.
[5]Includes costs of experiments and demonstration projects. Beginning in 1997, includes fraud and abuse control expenses, as provided for by Public Law 104-191.
[6]Includes repayment of loan principal, from the OASI trust fund, of $1.8 billion.
[7]Includes the lump-sum general revenue adjustment of -$2.4 billion, as provided for by section 151 of Public Law 98-21.
[8]For 1998 to 2003, includes monies transferred to the SMI trust fund for home health agency costs, as provided for by Public Law 105-33.
[9]Includes the lump-sum general revenue adjustment of -$1.2 billion, as provided for by section 151 of Public Law 98-21.

Note: Totals do not necessarily equal the sums of rounded components.

Table IV.F3.—Operations of the SMI Trust Fund (Cash Basis) during Fiscal Years 1970-2013

[In billions]

	Premium income	General revenue[2]	Transfers from States	Interest and other[3,4]	Total	Benefit payments[4,5]	Adminis-trative expense	Total	Net change	Balance at end of year[6]
Historical data:										
1970	$0.9	$0.9	—	$0.0	$1.9	$2.0	$0.2	$2.2	-$0.3	$0.1
1975	1.9	2.3	—	0.1	4.3	3.8	0.4	4.2	0.1	1.4
1980	2.9	6.9	—	0.4	10.3	10.1	0.6	10.7	-0.5	4.5
1985	5.5	17.9	—	1.2	24.6	21.8	0.9	22.7	1.8	10.6
1990	11.5[7]	33.2	—	1.4[7]	46.1[7]	41.5	1.5[7]	43.0[7]	3.1[7]	14.5[7]
1995	19.2	37.0	—	1.9	58.2	63.5	1.7	65.2	-7.0	13.9
1996	18.9	61.7	—	1.4	82.0	67.2	1.8	69.0	13.1	27.0
1997	19.1	59.5	—	2.2	80.8	71.1	1.4	72.6	8.3	35.2
1998	19.4	59.9	—	2.6	82.0	74.8[8]	1.4	76.3	5.7	40.9
1999	20.2	62.2	—	2.9	85.3	79.0[8]	1.5	80.5	4.8	45.6
2000	20.5	65.6	—	3.2	89.2	87.2[8]	1.8	89.0	0.2	45.9
2001	22.3	69.8	—	3.2	95.3	97.5[8]	2.0	99.5	-4.1	41.8
2002	24.4	78.3	—	3.0	105.7	107.0[8]	1.8	108.8	-3.1	38.7
2003	26.8	80.9	—	2.5	110.2	121.7[8]	2.4	124.1	-13.9	24.8
Intermediate estimates:										
2004	30.4	97.1	0.0	1.7	129.3	131.1	3.3	134.4	-5.1	19.7
2005	35.9	121.4	0.0	1.7	159.0	144.4	3.8	148.3	10.7	30.3
2006	48.6	173.9	6.6	2.3	231.5	211.8	3.4	215.2	16.3	46.6
2007	54.9	190.1	9.6	2.8	257.4	250.2	3.5	253.7	3.7	50.3
2008	59.0	203.5	10.4	3.1	276.0	268.8	3.7	272.5	3.5	53.8
2009	63.4	217.6	11.2	3.3	295.5	288.3	3.8	292.1	3.4	57.2
2010	67.9	232.3	12.0	3.5	315.8	307.9	4.0	311.8	4.0	61.2
2011	72.9	248.0	12.9	3.8	337.5	335.0	4.1	339.1	-1.6	59.6
2012	78.4	268.8	13.7	4.0	364.9	349.1	4.3	353.4	11.5	71.1
2013	85.3	293.5	14.9	4.3	398.0	386.7	4.4	391.1	6.9	78.0

[1]Fiscal years 1970 and 1975 consist of the 12 months ending on June 30 of each year; fiscal years 1980 and later consist of the 12 months ending on September 30 of each year.
[2]General fund matching payments, plus certain interest-adjustment items.
[3]Other income includes recoveries of amounts reimbursed from the trust fund that are not obligations of the trust fund and other miscellaneous income.
[4]See footnote 2 of table II.B5.
[5]See footnote 3 of table II.C1
[6]The financial status of SMI depends on both the assets and the liabilities of the trust fund (see table II.C13).
[7]Includes the impact of the Medicare Catastrophic Coverage Act of 1988 (Public Law 100-360).
[8]Benefit payments less monies transferred from the HI trust fund for home health agency costs, as provided for by the Balanced Budget Act of 1997.

Note: Totals do not necessarily equal the sums of rounded components.

Table IV.F4.—Operations of the Part B Account in the SMI Trust Fund (Cash Basis) during Fiscal Years 1970-2013

[In billions]

	Income				Expenditures			Account	
Fiscal year[1]	Premium income	General revenue[2]	Interest and other[3,4]	Total	Benefit payments[4,5]	Administrative expense	Total	Net change	Balance at end of year[6]
Historical data:									
1970	$0.9	$0.9	$0.0	$1.9	$2.0	$0.2	$2.2	-$0.3	$0.1
1975	1.9	2.3	0.1	4.3	3.8	0.4	4.2	0.2	1.4
1980	2.9	6.9	0.4	10.3	10.1	0.6	10.7	-0.5	4.5
1985	5.5	17.9	1.2	24.6	21.8	0.9	22.7	1.8	10.6
1990	11.5[7]	33.2	1.4[7]	46.1[7]	41.5	1.5[7]	43.0[7]	3.1[7]	14.5[7]
1995	19.2	37.0	1.9	58.2	63.5	1.7	65.2	-7.0	13.9
1996	18.9	61.7	1.4	82.0	67.2	1.8	68.9	13.1	27,0
1997	19.1	59.5	2.2	80.8	71.1	1.4	72.6	8.3	35.2
1998	19.4	59.9	2.6	82.0	74.8[8]	1.4	76.3	5.7	40.9
1999	20.2	62.2	2.9	85.3	79.0[8]	1.5	80.5	4.8	45.6
2000	20.5	65.6	3.2	89.2	87.2[8]	1.8	89.0	0.2	45.9
2001	22.3	69.8	3.2	95.3	97.5[8]	2.0	99.5	-4.1	41.8
2002	24.4	78.3	3.0	105.7	107.0[8]	1.8	108.8	-3.1	38.7
2003	26.8	80.9	2.5	110.2	121.7[8]	2.4	124.1	-13.9	24.8
Intermediate estimates:									
2004	30.4	94.5	1.7	126.6	128.8	3.0	131.8	-5.1	19.7
2005	35.9	117.8	1.7	155.3	141.6	3.1	144.6	10.7	30.3
2006	38.4	118.4	2.0	158.9	148.7	2.7	151.4	7.5	37.8
2007	40.3	123.1	2.3	165.6	160.0	2.8	162.8	2.8	40.6
2008	42.9	130.0	2.5	175.4	169.9	2.9	172.8	2.5	43.2
2009	45.8	137.2	2.6	185.7	180.2	3.0	183.2	2.4	45.6
2010	48.8	144.7	2.8	196.3	190.2	3.1	193.3	3.0	48.6
2011	52.1	152.8	3.0	207.8	207.3	3.2	210.5	-2.7	45.9
2012	55.6	162.7	3.1	221.4	208.1	3.4	211.4	10.0	55.9
2013	60.0	175.4	3.4	238.7	229.9	3.5	233.4	5.2	61.1

[1]Fiscal years 1970 and 1975 consist of the 12 months ending on June 30 of each year; fiscal years 1980 and later consist of the 12 months ending on September 30 of each year.
[2]General fund matching payments, plus certain interest-adjustment items.
[3]Other income includes recoveries of amounts reimbursed from the trust fund that are not obligations of the trust fund and other miscellaneous income.
[4]See footnote 2 of table II.B5.
[5]See footnote 3 of table II.C1
[6]The financial status of Part B depends on both the assets and the liabilities of the trust fund (see table II.C13).
[7]Includes the impact of the Medicare Catastrophic Coverage Act of 1988 (Public Law 100-360).
[8]Benefit payments less monies transferred from the HI trust fund for home health agency costs, as provided for by the Balanced Budget Act of 1997.

Note: Totals do not necessarily equal the sums of rounded components.

Table IV.F5.—Operations of the Part D Account in the SMI Trust Fund (Cash Basis) during Fiscal Years 2004-2013

[In billions]

	Income					Expenditures			Account	
Fiscal year	Premium income	General revenue[1]	Transfers from States[2]	Interest and other	Total	Payments to plans[3]	Administrative expense[4]	Total	Net change	Balance at end of year
Intermediate estimates:										
2004	—	$2.6	—	—	$2.6	$2.3	$0.3	$2.6	—	—
2005	—	3.6	—	—	3.6	2.9	0.8	3.6	—	—
2006	$10.2	55.4	$6.6	$0.3	72.6	63.0	0.7	63.8	$8.8	$8.8
2007	14.6	67.0	9.6	0.5	91.8	90.2	0.8	90.9	0.9	9.7
2008	16.1	73.5	10.4	0.6	100.6	98.9	0.8	99.7	0.9	10.6
2009	17.6	80.4	11.2	0.7	109.8	108.0	0.8	108.9	1.0	11.6
2010	19.1	87.6	12.0	0.8	119.5	117.6	0.9	118.5	1.0	12.6
2011	20.8	95.2	12.9	0.8	129.7	127.7	0.9	128.6	1.1	13.7
2012	22.8	106.0	13.7	0.9	143.4	141.0	0.9	142.0	1.5	15.2
2013	25.3	118.2	14.9	1.0	159.3	156.7	1.0	157.7	1.7	16.9

[1]Includes all government transfers including amounts for the general subsidy, reinsurance, employer drug subsidy, low-income subsidy, administrative expenses, risk sharing, and State expenses for making low-income eligibility determinations. Includes amounts for the Transitional Assistance program of $2.5, $2.8, and $0.2 billion in 2004-2006, respectively.

[2]See footnote 3 of table II.C19.

[3]Includes subsidies to employer retiree prescription drug plans, payments to States for making low-income eligibility determinations, and Part D drug premiums collected from beneficiaries and transferred to Medicare Advantage plans and private drug plans. Includes amounts for the Transitional Assistance program of $2.3, $2.8, and $0.2 billion in 2004-2006, respectively.

[4]Includes expenses of administering the Transitional Assistance program of $132, $56, and $3 million in 2004-2006, respectively.

Note: Totals do not necessarily equal the sums of rounded components.

G. GLOSSARY

Actuarial balance. The difference between the summarized income rate and the summarized cost rate over a given valuation period.

Actuarial deficit. A negative actuarial balance.

Actuarial rates. One-half of the SMI expected monthly cost for each aged enrollee (for the aged actuarial rate) and one-half of the expected monthly cost for each disabled enrollee (for the disabled actuarial rate) for the duration the rate is in effect.

Actuarial status. A measure of the adequacy of the financing as determined by the difference between assets and liabilities at the end of the periods for which financing was established.

Administrative expenses. Expenses incurred by the Department of Health and Human Services and the Department of the Treasury in administering HI and SMI and the provisions of the Internal Revenue Code relating to the collection of contributions. Such administrative expenses, which are paid from the HI and SMI trust funds, include expenditures for contractors to determine costs of, and make payments to, providers, as well as salaries and expenses of the Centers for Medicare & Medicaid Services.

Aged enrollee. An individual, aged 65 or over, who is enrolled in HI or SMI.

Allowed charge. Individual charge determined by a carrier for a covered SMI medical service or supply.

Annual out-of-pocket threshold. The amount of out-of-pocket expenses that must be paid before significantly reduced beneficiary cost sharing is effective. Amounts paid by a third-party insurer are not included in testing this threshold, but amounts paid by State or Federal assistance programs are included.

Assets. Treasury notes and bonds guaranteed by the Federal Government, and cash held by the trust funds for investment purposes.

Assumptions. Values relating to future trends in certain key factors that affect the balance in the trust funds. Demographic assumptions include fertility, mortality, net immigration, marriage, divorce, retirement patterns, disability incidence and termination rates, and

changes in the labor force. Economic assumptions include unemployment, average earnings, inflation, interest rates, and productivity. Three sets of economic assumptions are presented in the Trustees Report:

(1) The low cost alternative, with relatively rapid economic growth, low inflation, and favorable (from the standpoint of program financing) demographic conditions;
(2) The intermediate assumptions, which represent the Trustees' best estimates of likely future economic and demographic conditions; and
(3) The high cost alternative, with slow economic growth, more rapid inflation, and financially disadvantageous demographic conditions.

See also "Hospital assumptions."

Average market yield. A computation that is made on all marketable interest-bearing obligations of the United States. It is computed on the basis of market quotations as of the end of the calendar month immediately preceding the date of such issue.

Baby boom. The period from the end of World War II through the mid-1960s marked by unusually high birth rates.

Base estimate. The updated estimate of the most recent historical year.

Beneficiary. A person enrolled in HI or SMI. See also "Aged enrollee" and "Disabled enrollee."

Benefit payments. The amounts disbursed for covered services after the deductible and coinsurance amounts have been deducted.

Benefit period. An alternate name for "spell of illness."

Board of Trustees. A Board established by the Social Security Act to oversee the financial operations of the Federal Hospital Insurance Trust Fund and the Federal Supplementary Medical Insurance Trust Fund. The Board is composed of six members, four of whom serve automatically by virtue of their positions in the Federal Government: the Secretary of the Treasury, who is the Managing Trustee; the Secretary of Labor; the Secretary of Health and Human Services; and the Commissioner of Social Security. The other two members are appointed by the President and confirmed by the Senate to serve as public representatives. John L. Palmer and Thomas R. Saving began

serving their 4-year terms on October 28, 2000. The Administrator of the Centers for Medicare & Medicaid Services (CMS) serves as Secretary of the Board of Trustees.

Bond. A certificate of ownership of a specified portion of a debt due by the Federal Government to holders, bearing a fixed rate of interest.

Callable. Subject to redemption upon notice, as is a bond.

Carrier. A private or public organization under contract to CMS to administer the SMI benefits under Medicare. Also referred to as "contractors," these organizations determine coverage and benefit amounts payable and make payments to physicians, suppliers, and beneficiaries.

Case mix index. A relative weight that captures the average complexity of certain Medicare services.

Cash basis. The costs of the service when payment was made rather than when the service was performed.

Certificate of indebtedness. A short-term certificate of ownership (12 months or less) of a specified portion of a debt due by the Federal Government to individual holders, bearing a fixed rate of interest.

Closed-group population. Includes all persons currently participating in the program as either taxpayers or beneficiaries, or both. See also "Open-group population."

Coinsurance. Portion of the costs for covered services paid by the beneficiary after meeting the annual deductible. See also "Hospital coinsurance" and "SNF coinsurance."

Consumer Price Index (CPI). A measure of the average change in prices over time in a fixed group of goods and services. In this report, all references to the CPI relate to the CPI for Urban Wage Earners and Clerical Workers (CPI-W).

Contingency. Funds included in the SMI trust fund to serve as a cushion in case actual expenditures are higher than those projected at the time financing was established. Since the financing is set prospectively, actual experience may be different from the estimates used in setting the financing.

Contingency margin. An amount included in the actuarial rates to provide for changes in the contingency level in the SMI trust fund. Positive margins increase the contingency level, and negative margins decrease it.

Contribution base. See "Maximum tax base."

Contributions. See "Payroll taxes."

Cost rate. The ratio of HI cost (or outgo or expenditures) on an incurred basis during a given year to the taxable payroll for the year. In this context, the outgo is defined to exclude benefit payments and administrative costs for those uninsured persons for whom payments are reimbursed from the general fund of the Treasury, and for voluntary enrollees, who pay a premium to be enrolled.

Covered earnings. Earnings in employment covered by HI.

Covered employment. All employment and self-employment creditable for Social Security purposes. Almost every kind of employment and self-employment is covered under HI. In a few employment situations—for example, religious orders under a vow of poverty, foreign affiliates of American employers, or State and local governments—coverage must be elected by the employer. However, effective July 1991, coverage is mandatory for State and local employees who are not participating in a public employee retirement system. All new State and local employees have been covered since April 1986. In a few situations—for instance, ministers or self-employed members of certain religious groups—workers can opt out of coverage. Covered employment for HI includes all Federal employees (whereas covered employment for OASDI includes some, but not all, Federal employees).

Covered Part D drugs. Prescription drugs covered under the Medicaid program plus insulin-related supplies and smoking cessation agents. Drugs covered in Parts A and B of Medicare will continue to be covered there, rather than Part D.

Covered services. Services for which HI or SMI pays, as defined and limited by statute. Covered HI services are provided by hospitals (inpatient care), skilled nursing facilities, home health agencies, and hospices. Covered SMI services include most physician services, care in outpatient departments of hospitals, diagnostic tests, durable medical equipment, ambulance services, and other health services that are not covered by HI.

Covered worker. A person who has earnings creditable for Social Security purposes on the basis of services for wages in covered employment and/or on the basis of income from covered self-employment. The number of HI covered workers is slightly larger than the number of OASDI covered workers because of different coverage status for Federal employment. See "Covered employment."

Creditable prescription drug coverage. Prescription drug coverage that meets or exceeds the actuarial value of Part D coverage provided through a group health plan or otherwise.

Deductible. The annual amount payable by the beneficiary for covered services before Medicare makes reimbursement. See also "Inpatient hospital deductible."

Deemed wage credit. See "Non-contributory or deemed wage credits."

Demographic assumptions. See "Assumptions."

Diagnosis-related groups (DRGs). A classification system that groups patients according to diagnosis, type of treatment, age, and other relevant criteria. Under the inpatient hospital prospective payment system, hospitals are paid a set fee for treating patients in a single DRG category, regardless of the actual cost of care for the individual.

Direct subsidy. The amount paid to the prescription drug plans representing the difference between the plans risk adjusted bid and the beneficiary premium for basic coverage.

Disability. For Social Security purposes, the inability to engage in substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or to last for a continuous period of not less than 12 months. Special rules apply for workers aged 55 or older whose disability is based on blindness. The law generally requires that a person be disabled continuously for 5 months before he or she can qualify for a disabled-worker cash benefit. An additional 24 months is necessary to qualify for benefits under Medicare.

Disability Insurance (DI). See "Old-Age, Survivors, and Disability Insurance (OASDI)."

Disabled enrollee. An individual under age 65 who has been entitled to disability benefits under Title II of the Social Security Act or the Railroad Retirement system for at least 2 years and who is enrolled in HI or SMI.

DRG Coding. The DRG categories used by hospitals on discharge billing. See also "Diagnosis-related groups (DRGs)."

Durable medical equipment (DME). Items such as iron lungs, oxygen tents, hospital beds, wheelchairs, and seat lift mechanisms that are used in the patient's home and are either purchased or rented.

Earnings. Unless otherwise qualified, all wages from employment and net earnings from self-employment, whether or not taxable or covered.

Economic assumptions. See "Assumptions."

Economic stabilization program. A legislative program during the early 1970s that limited price increases.

Employer subsidy. The amount paid to the sponsors of qualifying employment based retiree prescription drug plans. This amount subsidizes a portion of actual drug expenditures between specified coverage limits. This amount is determined without regard to actual employer plan payments.

End-stage renal disease (ESRD). Permanent kidney failure.

Extended care services. In the context of this report, an alternate name for "skilled nursing facility services."

Fallback prescription drug plan. Prescription drug coverage provided by plans bearing no risk. One fallback plan will be approved in regions that do not have a choice of at least two at-risk plans.

Federal Insurance Contributions Act (FICA). Provision authorizing taxes on the wages of employed persons to provide for OASDI and HI. The tax is paid in equal amounts by covered workers and their employers.

Fee-screen year. A specified period of time in which SMI-recognized fees pertain. The fee-screen year period has changed over the history of the trust fund.

Financial interchange. Provisions of the Railroad Retirement Act providing for transfers between the trust funds and the Social Security Equivalent Benefit Account of the Railroad Retirement program in order to place each trust fund in the same position as if railroad employment had always been covered under Social Security.

Fiscal year. The accounting year of the U.S. Government. Since 1976, each fiscal year has begun October 1 of the prior calendar year and ended the following September 30. For example, fiscal year 2004 began October 1, 2003 and will end September 30, 2004.

Fixed capital assets. The net worth of facilities and other resources.

Frequency distribution. An exhaustive list of possible outcomes for a variable, and the associated probability of each outcome. The sum of the probabilities of all possible outcomes from a frequency distribution is 100 percent.

General fund of the Treasury. Funds held by the U.S. Treasury, other than revenue collected for a specific trust fund (such as HI or SMI) and maintained in a separate account for that purpose. The majority of this fund is derived from individual and business income taxes.

General revenue. Income to the HI and SMI trust funds from the general fund of the Treasury. Only a very small percentage of total HI trust fund income each year is attributable to general revenue.

Gramm-Rudman-Hollings Act. The Balanced Budget and Emergency Deficit Control Act of 1985.

Gross Domestic Product (GDP). The total dollar value of all goods and services produced in a year in the United States, regardless of who supplies the labor or property.

High cost alternative. See "Assumptions."

Home health agency (HHA). A public agency or private organization that is primarily engaged in providing the following services in the home: skilled nursing services, other therapeutic services (such as physical, occupational, or speech therapy), and home health aide services.

Hospice. A provider of care for the terminally ill; delivered services generally include home health care, nursing care, physician services, medical supplies, and short-term inpatient hospital care.

Hospital assumptions. These include differentials between hospital labor and non-labor indices compared with general economy labor and non-labor indices; rates of admission incidence; the trend toward treating less complicated cases in outpatient settings; and continued improvement in DRG coding.

Hospital coinsurance. For the 61st through 90th day of hospitalization in a benefit period, a daily amount for which the beneficiary is responsible, equal to one-fourth of the inpatient hospital deductible; for lifetime reserve days, a daily amount for which the beneficiary is responsible, equal to one-half of the inpatient hospital deductible (see "Lifetime reserve days").

Hospital input price index. An alternate name for "hospital market basket."

Hospital Insurance (HI). The Medicare trust fund that covers specified inpatient hospital services, posthospital skilled nursing care, home health services, and hospice care for aged and disabled individuals who meet the eligibility requirements. Also known as Medicare Part A.

Hospital market basket. The cost of the mix of goods and services (including personnel costs but excluding nonoperating costs) comprising routine, ancillary, and special care unit inpatient hospital services.

Income rate. The ratio of income from tax revenues on an incurred basis (payroll tax contributions and income from the taxation of OASDI benefits) to the HI taxable payroll for the year.

Incurred basis. The costs based on when the service was performed rather than when the payment was made.

Independent laboratory. A free-standing clinical laboratory meeting conditions for participation in the Medicare program and billing through a carrier.

Initial coverage limit. The amount up to which the coinsurance applies under the standard prescription drug benefit.

Inpatient hospital deductible. An amount of money that is deducted from the amount payable by Medicare Part A for inpatient hospital services furnished to a beneficiary during a spell of illness.

Inpatient hospital services. These services include bed and board, nursing services, diagnostic or therapeutic services, and medical or surgical services.

Interest. A payment for the use of money during a specified period.

Interfund borrowing. The borrowing of assets by a trust fund (OASI, DI, HI, or SMI) from another of the trust funds when one of the funds is in danger of exhaustion. Interfund borrowing was authorized only during 1982-1987.

Intermediary. A private or public organization that is under contract to CMS to determine costs of, and make payments to, providers for HI and certain SMI services.

Intermediate assumptions. See "Assumptions."

Late enrollment penalty. Additional beneficiary premium amounts for those that either do not enroll in Part D at the first opportunity or who fail to maintain other creditable coverage for more than 63 days.

Lifetime reserve days. Under HI, each beneficiary has 60 lifetime reserve days that he or she may opt to use when regular inpatient hospital benefits are exhausted. The beneficiary pays one-half of the inpatient hospital deductible for each lifetime reserve day used.

Long range. The next 75 years.

Low cost alternative. See "Assumptions."

Low-income beneficiary. Individuals meeting income and assets tests who are eligible for prescription drug coverage subsidies to help finance premiums and out-of-pocket payments.

Managed care. Includes Health Maintenance Organizations (HMO), Competitive Medical Plans (CMP), and other plans that provide health services on a prepayment basis, which is based either on cost or risk, depending on the type of contract they have with Medicare. See also "Medicare Advantage."

Market basket. See "Hospital market basket."

Maximum tax base. Annual dollar amount above which earnings in employment covered under HI are not taxable. Beginning in 1994, the maximum tax base was eliminated under HI.

Maximum taxable amount of annual earnings. See "Maximum tax base."

Medicare. A nationwide, federally administered health insurance program authorized in 1965 to cover the cost of hospitalization, medical care, and some related services for most people over age 65. In 1972, coverage was extended to people receiving Social Security Disability Insurance payments for 2 years, and people with end-stage renal disease. In 2006, prescription drug coverage will be added as well. Medicare consists of two separate but coordinated trust funds: Hospital Insurance (HI, Part A) and Supplementary Medical Insurance (SMI). The SMI trust fund is composed of three separate accounts: the Part B account, the Part D account, and the Transitional Assistance Account. Almost all persons who are aged 65 and over or disabled and who are entitled to HI are eligible to enroll in Part B and Part D on a voluntary basis by paying monthly premiums. Health insurance protection is available to Medicare beneficiaries without regard to income.

Medicare Advantage (formerly called Medicare+Choice). An expanded set of options, established by the Medicare modernization act, for the delivery of health care under Medicare. Most Medicare beneficiaries can choose to receive benefits through the original fee-for-service program or through one of the following Medicare Advantage plans: (1) coordinated care plans (such as health maintenance organizations, provider sponsored organizations, and preferred provider organizations); (2) Medical Savings Account (MSA)/High Deductible plans (through a demonstration available to up to 390,000 beneficiaries); or (3) private fee-for-service plans.

Medicare Advantage Prescription Drug Plan (MA-PD). Prescription drug coverage provided by Medicare Advantage plans.

Medicare Economic Index (MEI). An index often used in the calculation of the increases in the prevailing charge levels that help to determine allowed charges for physician services. In 1992 and later, this index is considered in connection with the update factor for the physician fee schedule.

Medicare Payment Advisory Commission (MedPAC). A commission established by Congress in the Balanced Budget Act of

1997 to replace the Prospective Payment Assessment Commission and the Physician Payment Review Commission. MedPAC is directed to provide the Congress with advice and recommendations on policies affecting the Medicare program.

Medicare Prescription Drug Account. The separate account within the SMI trust fund to manage revenues and expenditures of the Part D drug benefit.

Military service wage credits. Credits recognizing that military personnel receive other cash payments and wages in kind (such as food and shelter) in addition to their basic pay. Noncontributory wage credits of $160 were provided for each month of active military service from September 16, 1940 through December 31, 1956. For years after 1956, the basic pay of military personnel is covered under the Social Security program on a contributory basis. In addition to contributory credits for basic pay, noncontributory wage credits of $300 were granted for each calendar quarter in which a person received pay for military service from January 1957 through December 1977. Deemed wage credits of $100 were granted for each $300 of military wages, up to a maximum of $1,200 per calendar year, from January 1978 through December 2001. See also "Quinquennial military service determinations and adjustments."

National average monthly bid. The weighted average of all drug bids including all of the bids from PDPs and the drug portion of bids from MA-PDs.

Noncontributory or deemed wage credits. Wages and wages in kind that were not subject to the HI tax but are deemed as having been. Deemed wage credits exist for the purposes of (1) determining HI eligibility for individuals who might not be eligible for HI coverage without payment of a premium were it not for the deemed wage credits; and (2) calculating reimbursement due the HI trust fund from the general fund of the Treasury. The first purpose applies in the case of providing coverage to persons during the transitional periods when HI began and when it was expanded to cover Federal employees; both purposes apply in the cases of military service wage credits and deemed wage credits granted for the internment of persons of Japanese ancestry during World War II.

Old-Age, Survivors, and Disability Insurance (OASDI). The Social Security programs that pay for (1) monthly cash benefits to retired-worker (old-age) beneficiaries, their spouses and children, and survivors of deceased insured workers (OASI); and (2) monthly cash

benefits to disabled-worker beneficiaries and their spouses and children, and for providing rehabilitation services to the disabled (DI).

Open-group population. Includes all persons who will ever participate in the program as either taxpayers or beneficiaries, or both. See also "Closed-group population."

Outpatient hospital. Part of the hospital providing services covered by SMI, including services in an emergency room or outpatient clinic, ambulatory surgical procedures, medical supplies such as splints, laboratory tests billed by the hospital, etc.

Part A. The Medicare Hospital Insurance trust fund.

Part A premium. A monthly premium paid by or on behalf of individuals who wish for and are entitled to voluntary enrollment in Medicare HI. These individuals are those who are aged 65 and older, are uninsured for social security or railroad retirement, and do not otherwise meet the requirements for entitlement to Part A. Disabled individuals who have exhausted other entitlement are also qualified. These individuals are those not now entitled but who have been entitled under section 226(b) of the Act, who continue to have the disabling impairment upon which their entitlement was based, and whose entitlement ended solely because the individuals had earnings that exceeded the substantial gainful activity amount (as defined in section 223(d)(4) of the Act).

Part B. The account within the Medicare Supplementary Medical Insurance trust fund that pays for a portion of the costs of physicians' services, outpatient hospital services, and other related medical and health services for voluntarily enrolled aged and disabled individuals.

Part B premium. Monthly premium paid by those individuals who have voluntarily enrolled in Part B.

Part C. See Medicare Advantage.

Part D. The account within the Medicare Supplementary Medical Insurance trust fund that pays private plans to provide prescription drug coverage.

Participating hospitals. Those hospitals that participate in the Medicare program.

Pay-as-you-go financing. A financing scheme in which taxes are scheduled to produce just as much income as required to pay current benefits, with trust fund assets built up only to the extent needed to prevent exhaustion of the fund by random fluctuations.

Payroll taxes. Taxes levied on the gross wages of workers.

PDP regions. Regional areas that are fully serviced by prescription drug plans.

Peer Review Organization (PRO). A group of practicing physicians and other health care professionals paid by the Federal Government to review the care given to Medicare patients. Starting in 2002, these organizations are called Quality Improvement Organizations.

Percentile. A number that corresponds to one of the equal divisions of the range of a variable in a given sample and that characterizes a value of the variable as not exceeded by a specified percentage of all the values in the sample. For example, a score higher than 97 percent of those attained is said to be in the 97th percentile.

Prescription Drug Plan (PDP). Stand-alone prescription drug plans offered to beneficiaries in traditional fee-for-service Medicare and to beneficiaries in Medicare Advantage plans that do not offer a prescription drug benefit.

Present value. The present value of a future stream of payments is the lump-sum amount that, if invested today, together with interest earnings would be just enough to meet each of the payments as it fell due. At the time of the last payment, the invested fund would be exactly zero.

Projection error. Degree of variation between estimated and actual amounts.

Prospective payment system (PPS). A method of reimbursement in which Medicare payment is made based on a predetermined, fixed amount. The payment amount for a particular service is derived based on the classification system of that service (for example, DRGs for inpatient hospital services).

Provider. Any organization, institution, or individual who provides health care services to Medicare beneficiaries. Hospitals (inpatient services), skilled nursing facilities, home health agencies, and

hospices are the providers of services covered under Medicare Part A. Physicians, ambulatory surgical centers, and outpatient clinics are some of the providers of services covered under Medicare Part B.

Quality Improvement Organization (QIO). See "Peer Review Organization."

Quinquennial military service determination and adjustments. Prior to the Social Security Amendments of 1983, quinquennial determinations (that is, estimates made once every 5 years) were made of the costs arising from the granting of deemed wage credits for military service prior to 1957; annual reimbursements were made from the general fund of the Treasury to the HI trust fund for these costs. The Social Security Amendments of 1983 provided for (1) a lump-sum transfer in 1983 for (a) the costs arising from the pre-1957 wage credits, and (b) amounts equivalent to the HI taxes that would have been paid on the deemed wage credits for military service for 1966 through 1983, inclusive, if such credits had been counted as covered earnings; (2) quinquennial adjustments to the pre-1957 portion of the 1983 lump-sum transfer; (3) general fund transfers equivalent to HI taxes on military deemed wage credits for 1984 and later, to be credited to the fund on July 1 of each year; and (4) adjustments as deemed necessary to any previously transferred amounts representing HI taxes on military deemed wage credits.

Railroad Retirement. A Federal insurance program similar to Social Security designed for workers in the railroad industry. The provisions of the Railroad Retirement Act provide for a system of coordination and financial interchange between the Railroad Retirement program and the Social Security program.

Real-wage differential. The difference between the percentage increases, before rounding, in (1) the average annual wage in covered employment, and (2) the average annual CPI.

Reasonable-cost basis. The calculation to determine the reasonable cost incurred by individual providers when furnishing covered services to beneficiaries. The reasonable cost is based on the actual cost of providing such services, including direct and indirect costs of providers, and excluding any costs that are unnecessary in the efficient delivery of services covered by a health insurance program.

Reinsurance subsidy. Payments to the prescription drug plans in the amount of 80 percent of drug expenses which exceed the annual out-of-pocket threshold.

Residual factors. Factors other than price, including volume of services, intensity of services, and age/sex changes.

Risk corridor. Triggers that are set to protect prescription drug plans from unexpected losses and allows the government to share in unexpected gains.

Self-employment. Operation of a trade or business by an individual or by a partnership in which an individual is a member.

Self-Employment Contributions Act (SECA). Provision authorizing taxes on the net income of most self-employed persons to provide for OASDI and HI.

Sequester. The reduction of funds to be used for benefits or administrative costs from a Federal account, based on the requirements specified in the Gramm-Rudman-Hollings Act.

Short range. The next 10 years.

Skilled nursing facility (SNF). An institution that is primarily engaged in providing skilled nursing care and related services for residents who require medical or nursing care, or that is engaged in the rehabilitation of injured, disabled, or sick persons.

SNF coinsurance. For the 21st through 100th day of extended care services in a benefit period, a daily amount for which the beneficiary is responsible, equal to one-eighth of the inpatient hospital deductible.

Social Security Act. Public Law 74-271, enacted on August 14, 1935, with subsequent amendments. The Social Security Act consists of 20 titles, four of which have been repealed. The HI and SMI trust funds are authorized by Title XVIII of the Social Security Act.

Special public-debt obligation. Securities of the U.S. Government issued exclusively to the OASI, DI, HI, and SMI trust funds and other Federal trust funds. Sections 1817(c) and 1841(a) of the Social Security Act provide that the public-debt obligations issued for purchase by the HI and SMI trust funds, respectively, shall have

maturities fixed with due regard for the needs of the funds. The usual practice in the past has been to spread the holdings of special issues, as of every June 30, so that the amounts maturing in each of the next 15 years are approximately equal. Special public-debt obligations are redeemable at par at any time.

Spell of illness. A period of consecutive days, beginning with the first day on which a beneficiary is furnished inpatient hospital or extended care services, and ending with the close of the first period of 60 consecutive days thereafter in which the beneficiary is in neither a hospital nor a skilled nursing facility.

Standard prescription drug coverage. Prescription drug coverage that includes a deductible, coinsurance up to an initial coverage limit and protection against high out-of-pocket expenditures by having reduced coinsurance provisions for individuals exceeding the out-of-pocket threshold.

Stochastic model. An analysis involving a random variable. For example, a stochastic model may include a frequency distribution for one assumption. From the frequency distribution, possible outcomes for the assumption are selected randomly for use in an illustration.

Summarized cost rate. The ratio of the present value of expenditures to the present value of the taxable payroll for the years in a given period. In this context, the expenditures are on an incurred basis and exclude costs for those uninsured persons for whom payments are reimbursed from the general fund of the Treasury, and for voluntary enrollees, who pay a premium in order to be enrolled. The summarized cost rate includes the cost of reaching and maintaining a "target" trust fund level, known as a contingency fund ratio. Because a trust fund level of about 1 year's expenditures is considered to be an adequate reserve for unforeseen contingencies, the targeted contingency fund ratio used in determining summarized cost rates is 100 percent of annual expenditures. Accordingly, the summarized cost rate is equal to the ratio of (1) the sum of the present value of the outgo during the period, plus the present value of the targeted ending trust fund level, plus the beginning trust fund level, to (2) the present value of the taxable payroll during the period.

Summarized income rate. The ratio of (1) the present value of the tax revenues incurred during a given period (from both payroll taxes and taxation of OASDI benefits), to (2) the present value of the taxable payroll for the years in the period.

Supplementary Medical Insurance (SMI). The Medicare trust fund composed of the Part B account, the Part D account, and the Transitional Assistance Account. The Part B account pays for a portion of the costs of physicians' services, outpatient hospital services, and other related medical and health services for voluntarily enrolled aged and disabled individuals. The Part D account pays private plans to provide prescription drug coverage, beginning in 2006. The Transitional Assistance Account pays for transitional assistance under the prescription drug card program in 2004 and 2005.

Supplemental prescription drug coverage. Coverage in excess of the standard prescription drug coverage.

Sustainable growth rate. A system for establishing goals for the rate of growth in expenditures for physicians' services.

Tax rate. The percentage of taxable earnings, up to the maximum tax base, that is paid for the HI tax. Currently, the percentages are 1.45 for employees and employers, each. The self-employed pay 2.9 percent.

Taxable earnings. Taxable wages and/or self-employment income under the prevailing annual maximum taxable limit.

Taxable payroll. A weighted average of taxable wages and taxable self-employment income. When multiplied by the combined employee-employer tax rate, it yields the total amount of taxes incurred by employees, employers, and the self-employed for work during the period.

Taxable self-employment income. Net earnings from self-employment—generally above $400 and below the annual maximum taxable amount for a calendar or other taxable year—less any taxable wages in the same taxable year.

Taxable wages. Wages paid for services rendered in covered employment up to the annual maximum taxable amount.

Taxation of benefits. Beginning in 1994, up to 85 percent of an individual's or a couple's OASDI benefits is potentially subject to Federal income taxation under certain circumstances. The revenue derived from taxation of benefits in excess of 50 percent, up to 85 percent, is allocated to the HI trust fund.

Taxes. See "Payroll taxes."

Term insurance. A type of insurance that is in force for a specified period of time.

Test of Long-Range Close Actuarial Balance. Summarized income rates and cost rates are calculated for each of 66 valuation periods within the full 75-year long-range projection period under the intermediate assumptions. The first of these periods consists of the next 10 years. Each succeeding period becomes longer by 1 year, culminating with the period consisting of the next 75 years. The long-range test is met if, for each of the 66 time periods, the actuarial balance is not less than zero or is negative by, at most, a specified percentage of the summarized cost rate for the same time period. The percentage allowed for a negative actuarial balance is 5 percent for the full 75-year period and is reduced uniformly for shorter periods, approaching zero as the duration of the time periods approaches the first 10 years. The criterion for meeting the test is less stringent for the longer periods in recognition of the greater uncertainty associated with estimates for more distant years. This test is applied to HI trust fund projections made under the intermediate assumptions.

Test of Short-Range Financial Adequacy. The conditions required to meet this test are as follows: (1) If the trust fund ratio for a fund exceeds 100 percent at the beginning of the projection period, then it must be projected to remain at or above 100 percent throughout the 10-year projection period; (2) alternatively, if the fund ratio is initially less than 100 percent, it must be projected to reach a level of at least 100 percent within 5 years (and not be depleted at any time during this period), and then remain at or above 100 percent throughout the rest of the 10-year period. This test is applied to HI trust fund projections made under the intermediate assumptions.

Transitional assistance. An interim benefit for 2004 and 2005 which provides up to $600 per year to assist low-income beneficiaries, who have no drug insurance coverage, with prescription drug purchases. This benefit also pays the enrollment fee in the Medicare Prescription Drug Discount Card program.

Transitional Assistance Account. The separate account within the SMI trust fund to manage revenues and expenditures for the transitional assistance drug benefit.

Trust fund. Separate accounts in the U. S. Treasury, mandated by Congress, whose assets may be used only for a specified purpose. For

the HI and SMI trust funds, monies not withdrawn for current benefit payments and administrative expenses are invested in interest-bearing Federal securities, as required by law; the interest earned is also deposited in the trust funds.

Trust fund ratio. A short-range measure of the adequacy of the HI and SMI trust fund level; defined as the assets at the beginning of the year expressed as a percentage of the outgo during the year.

Unit input intensity allowance. The amount added to, or subtracted from, the hospital input price index to yield the prospective payment system update factor.

Valuation period. A period of years that is considered as a unit for purposes of calculating the status of a trust fund.

Voluntary enrollee. Certain individuals, aged 65 or older or disabled, who are not otherwise entitled to Medicare and who opt to obtain coverage under Part A by paying a monthly premium.

Year of exhaustion. The first year in which a trust fund is unable to pay benefits when due because the assets of the fund are exhausted.

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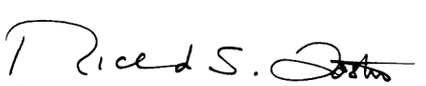
STATEMENT OF ACTUARIAL OPINION

It is my opinion that (1) the techniques and methodology used herein to evaluate the financial status of the Federal Hospital Insurance Trust Fund and the Federal Supplementary Medical Insurance Trust Fund are based upon sound principles of actuarial practice and are generally accepted within the actuarial profession; and (2) the principal assumptions used and the resulting actuarial estimates are, individually and in the aggregate, reasonable for the purpose of evaluating the financial status of the trust funds, taking into consideration the past experience and future expectations for the population, the economy, and the program.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 introduces a number of major changes to the Medicare program. Estimating the future financial impact for certain of these new provisions involves a substantial degree of uncertainty. For example, there is no past program experience available to guide the projected expenditures under the new prescription drug benefit. Actual future costs will depend on the proportion of beneficiaries who enroll in drug plans, future changes in drug prices and utilization rates, and the ability of plans to manage utilization and obtain discounts. Payments to Medicare Advantage plans will depend on the plans' cost levels relative to statutory benchmarks and on the number of beneficiaries who enroll in these plans. The cost of low-income drug subsidies and the additional revenues from the income-related Part B premium will depend on beneficiaries' incomes, for which only limited data are available.

Financial projections for health benefit programs are almost always uncertain, due to the volatility of the various factors affecting health care cost growth. Readers should note, however, that the data and behavioral issues summarized above significantly increase the level of uncertainty for the current Medicare projections.



Richard S. Foster
Fellow, Society of Actuaries
Member, American Academy of Actuaries
Chief Actuary, Centers for Medicare & Medicaid Services